SAFETY DATA SHEET

B65T304

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Ultradeep Base

Product code : B65T304

Other means of identification : Not available.

CAS # : Not applicable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 15.6%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause cancer.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Methyl n-Amyl Ketone	22.99	110-43-0
Crystalline Silica, respirable powder	15.63	14808-60-7
Cyclohexanone	1.66	108-94-1
Bis(pentamethyl-4-piperidyl)sebacate	0.25	41556-26-7

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions :

Section 6. Accidental release measures

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Methyl n-Amyl Ketone	**ACGIH TLV (United States, 3/2016).** TWA: 50 ppm 8 hours. TWA: 233 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 100 ppm 10 hours. TWA: 465 mg/m³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 100 ppm 8 hours. TWA: 465 mg/m³ 8 hours.
Crystalline Silica, respirable powder	**OSHA PEL Z3 (United States, 6/2016).** TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable **OSHA PEL (United States, 6/2016).** TWA: 50 µg/m³ 8 hours. Form: Respirable dust **ACGIH TLV (United States, 3/2016).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction **NIOSH REL (United States, 10/2013).** TWA: 0.05 mg/m³ 10 hours. Form: respirable dust
Cyclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA: 25 ppm 10 hours. TWA: 100 mg/m³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 50 ppm 8 hours. TWA: 200 mg/m³ 8 hours.
Bis(pentamethyl-4-piperidyl)sebacate	None.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Crystalline Silica, respirable powder	**CA British Columbia Provincial (Canada, 5/2015).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 0.1 mg/m³ 8 hours. Form: Respirable dust. **CA Ontario Provincial (Canada, 7/2015).** TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction. **CA Alberta Provincial (Canada, 4/2009).** 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate **CA Saskatchewan Provincial (Canada, 7/2013).** TWA: 0.05 mg/m³ 8 hours. Form: respirable fraction
Cyclohexanone	**CA Alberta Provincial (Canada, 4/2009).**

	Absorbed through skin. 8 hrs OEL: 20 ppm 8 hours. 8 hrs OEL: 80 mg/m³ 8 hours. 15 min OEL: 200 mg/m³ 15 minutes. 15 min OEL: 50 ppm 15 minutes. **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** TWAEV: 25 ppm 8 hours. TWAEV: 100 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEL: 50 ppm 15 minutes. TWA: 20 ppm 8 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Amyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPT: 50 ppm 8 hours.
Crystalline Silica, respirable powder	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPT: 0.025 mg/m³ 8 hours. Form: Respirable fraction
Cyclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** LMPE-PPT: 20 ppm 8 hours. LMPE-CT: 50 ppm 15 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 147°C (296.6°F)

Flash point : Closed cup: 39°C (102.2°F) [Tagliabue Closed Cup]

Evaporation rate : 0.33 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1.1%
Upper: 8.1%

Vapor pressure : 0.51 kPa (3.855 mm Hg) [at 20°C]

Vapor density : 3.4 [Air = 1]

Relative density : 1.13

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm^2/s (>20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 12.07 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Amyl Ketone	LD50 Oral	Rat	1600 mg/kg	-
Cyclohexanone	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LD50 Oral	Rat	1800 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Amyl Ketone	Skin - Mild irritant	Rabbit	-	24 hours 14 milligrams	-
Cyclohexanone	Eyes - Severe irritant	Rabbit	-	24 hours 250 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Human	-	48 hours 50 Percent	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline Silica, respirable powder	-	1	Known to be a human carcinogen.
Cyclohexanone	-	3	-

Reproductive toxicity

Not available.

Section 11. Toxicological information

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Amyl Ketone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Cyclohexanone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Amyl Ketone	Category 2	Not determined	Not determined
Crystalline Silica, respirable powder	Category 1	Inhalation	Not determined
Cyclohexanone	Category 2	Not determined	Not determined

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral Inhalation (gases)	5516.8 mg/kg 406009.5 ppm

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Amyl Ketone Cyclohexanone	Acute LC50 131000 µg/l Fresh water Acute EC50 32.9 mg/l Fresh water Acute LC50 527000 µg/l Fresh water Chronic EC10 3.56 mg/l Fresh water	Fish - Pimephales promelas Algae - Chlamydomonas reinhardtii - Exponential growth phase Fish - Pimephales promelas Algae - Chlamydomonas reinhardtii - Exponential growth phase	96 hours 72 hours 96 hours 72 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Amyl Ketone	-	-	Readily

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials. **ERG No.** 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3). **ERG No.** 128	- **ERG No.** 128	-	**Emergency schedules (EmS)** F-E, S-E

Section 14. Transport information

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

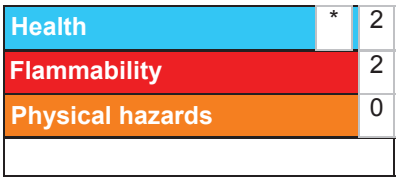
SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1	Calculation method

History

Date of printing : 4/18/2017

Date of issue/Date of revision : 4/18/2017

Section 16. Other information

Date of previous issue : 12/29/2016

Version : 4.01

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g65p338

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Sal4ty p ed

Product code : g65p338

Other means of identification : Bot aNailavleb

CAS # : Bot aYYlicavleb

Product type : . iLuidb

Relevant identified uses of the substance or mixture and uses advised against

Bot aYYlicavleb

Manufacturer : THE SHEp R IB-R I. . IWMS CA MPWBO
101 R bProsYect WNenue
CleNeland, AH 44115

Emergency telephone number of the company : q S / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / DbFb5559-1588 24 hours / 365 days a year

Product Information Telephone Number : q S / Canada: (800) 524-5979
Mexico: Bot WNailavle

Regulatory Information Telephone Number : q S / Canada: (216) 566-2902
Mexico: Bot WNailavle

Transportation Emergency Telephone Number : q S / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / DbFb5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous vy the ASHWHazard Communication Standard (29 CFp 1910b1200)b

Classification of the substance or mixture : F. WMMWg. E . IQq IDS - CateKory 3
SZIB SEBSITIXWTIAB - CateKory 1
CWp CIBAGEBICITO - CateKory 1W
SPECIFIC TWp GET Ap GWB TAf ICITO (p EPEWTED Ef PASq p E) - CateKory 1
PercentaKe oUthe mixture consistinK oUnKredient(s) oUunknown acute toxicity: 17b9%

GHS label elements

Hazard pictograms :

Signal word : DanKer

Hazard statements : Flammavle liLuid and NaYorb
May cause an allerKic skin reactionb
May cause cancerb
Causes damaKe to orKans throuKh YrolonKed or reYeated exYosureb

Precautionary statements

Section 2. Hazards identification

Prevention : Avtain sYecial instructions velore useb Do not handle until all salety Yrecautions haNe veen read and understoodb R ear YrotectiNe KloNesb R ear eye or lace Yrotectionb R ear YrotectiNe clothinKb ZeeY away lrom heat, hot surlaces, sYarks, oYen llames and other iKnition sourcesbBo smokinKb q se exYlosion-YrooUelectrical, NentilatinK, liKhtinK and all material-handlinK eLuiYmentb q se only non-sYarkinK toolsb Take Yrecautionary measures aKainst static discharKeb ZeeY container tiKhtly closedb Do not vreathe NaYor: Do not eat, drink or smoke when usinK this Yroductb R ash hands thorouKhly alter handlinKb Contaminated work clothinK must not ve allowed out oUthe workYlaceb

Response : Get medical attention iUyou leel unwellb IF exYosed or concerned: Get medical attentionb IF AB SZIB (or hair): Take oUlimmediately all contaminated clothinKb p inse skin with water or showerb IF AB SZIB: R ash with Ylenty oUsoaY and waterb R ash contaminated clothinK velore reuseb IUskin irritation or rash occurs: Get medical attentionb

Storage : Store locked uYb Store in a well-Nentilated Ylaceb ZeeY coolb

Disposal : DisYose oUcontents and container in accordance with all local, reKional, national and international reKulationsb

Supplemental label elements

DE. WOED EFFECTS FpAM . ABG TEp M AVEp Ef PASq p EbContains solNents which can cause Yermanent vrain and nerNous system damaKebIntentional misuse vy deliverately concentratinK and inhalinK the contents can ve harmlul or latalb R Wp BIBG: This Yroduct contains chemicals known to the State oUCalillornia to cause cancer and virth delects or other reYroductiNe harmb FAp IBDq STp IW. q SE AB. Ob This Yroduct must ve mixed with other comYonents velore usebg elore oYeninK the YackaKes, p EWD WBD FA. . AR R Wp BIBG . WgE. S AB W. CAMPABEBTSbWdeLuate Nentilation reLuired when sandinK or avradinK the dried lumbIUWdeLuate Nentilation cannot ve YroNded wear an aYYroNed Yarticulate resYirator (BIASH aYYroNed)bFollow resYirator manulacturer's directions lor resYirator usebDE. WOED EFFECTS FpAM . ABG TEp M AVEp Ef PASq p EbWvradinK or sandinK oUthe dry lilm may release Crystalline Silica which has veen shown to cause lunK damaKe and cancer under lonK term exYosureb

Please reler to the SDS lor additional inlormationbZeeY out oUreach oUchildrenb Do not transler contents to other containers lor storaKeb

Hazards not otherwise classified : Bone knownb

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Bot aNailavleb

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Methyl n-Wmyl Zetone	17b48	110-43-0
Crystalline Silica, resYiravle Yowder	16b72	14808-60-7
Titanium Dioxide	1b22	13463-67-7
1,2,4-Trimethylvenzene	1b14	95-63-6
f ylene	1b06	1330-20-7
Ethylvenzene	0b25	100-41-4
gis(Yentamethyl-4-YiYeridyl)sevacate	0b22	41556-26-7
Cumene	0b15	98-82-8

Why concentration shown as a ranKe is to Yrotect conlidentiality or is due to vatch Nariationb

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately lUush eyes with Ylenty oUwater, occasionally liUtinK the uYYer and lower eyelidsb Check Udr and remoNe any contact lensesb Continue to rinse Udr at least 10 minutesb Get medical attentionb

Inhalation : p emoNe Nctim to Udesh air and keeY at rest in a Yosition comUdrtavle Udr vreathinKb IU not vreathinK, iUvreathinK is irreKular or iUresYiratory arrest occurs, YroNde artiUcial resYiration or oxyKen vy trained Yersonnelb It may ve danKerous to the Yerson YroNdinK aid to KiNe mouth-to-mouth resuscitationb Get medical attentionb IUunconscious, Ylace in recoNery Yosition and Ket medical attention immediatelyb Maintain an oYen airwayb . oosen tiKht clothinK such as a collar, tie, velt or waistvandb In case oUinhalation oU decomYosition Yroducts in a Ure, symYtoms may ve delayedb The exYosed Yerson may need to ve keYt under medical surNeillance Udr 48 hoursb

Skin contact : R ash with Ylenty oUsoaY and waterb p emoNe contaminated clothinK and shoesb R ash contaminated clothinK thorouKhly with water veUdre remoNnK it, or wear KloNesb Continue to rinse Udr at least 10 minutesb Get medical attentionb In the eNent oUany comYlaints or symYtoms, aNoid Udrther exYosureb R ash clothinK veUdre reuseb Clean shoes thorouKhly veUdre reuseb

Ingestion : R ash out mouth with waterb p emoNe dentures iUanyb p emoNe Nctim to Udesh air and keeY at rest in a Yosition comUdrtavle Udr vreathinKb IUmaterial has veen swallowed and the exYosed Yerson is conscious, KiNe small Luantities oUwater to drinkb StoY iUthe exYosed Yerson Ueels sick as NomitinK may ve danKerousb Do not induce NomitinK unless directed to do so vy medical Yersonnelb IUNomitinK occurs, the head should ve keYt low so that Nomit does not enter the lunKsb Get medical attentionb BeNer KiNe anythinK vy mouth to an unconscious Yersonb IUunconscious, Ylace in recoNery Yosition and Ket medical attention immediatelyb Maintain an oYen airwayb . oosen tiKht clothinK such as a collar, tie, velt or waistvandb

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Bo known siKniUcant eUdects or critical hazardsb

Inhalation : Bo known siKniUcant eUdects or critical hazardsb

Skin contact : May cause an allerKic skin reactionb

Ingestion : Bo known siKniUcant eUdects or critical hazardsb

Over-exposure signs/symptoms

Eye contact : Bo sYeciUc datab

Inhalation : Bo sYeciUc datab

Skin contact : WdNerse symYtoms may include the UdllowinK:
irritation
redness

Ingestion : Bo sYeciUc datab

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case oUinhalation oUdecomYosition Yroducts in a Ure, symYtoms may ve delayedb The exYosed Yerson may need to ve keYt under medical surNeillance Udr 48 hoursb

Specific treatments : Bo sYeciUc treatmentb

Protection of first-aiders : Bo action shall ve taken inNolNnK any Yersonal risk or without suitavle trainiNKb IUit is susYected that Udmes are still Yresent, the rescuer should wear an aYYroYriate mask or selUcontained vreathinK aYYaratusb It may ve danKerous to the Yerson YroNdinK aid to KiNe mouth-to-mouth resuscitationb R ash contaminated clothinK thorouKhly with water veUdre remoNnK it, or wear KloNesb

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : q se dry chemical, CO_2, water sYray (uoK) or uoamb

Unsuitable extinguishing media : Do not use water jetb

Specific hazards arising from the chemical : Flammavle liLuid and NaYorb In a uire or iUheated, a Yressure increase will occur and the container may vurst, with the risk oUa suvseLuent exYlosionb The NaYor/Kas is heaNer than air and will sYread alonK the Kroundb VaYors may accumulate in low or conuined areas or traNel a consideravle distance to a source oUiKnition and uash vackb p unoUto sewer may create uire or exYlosion hazardb

Hazardous thermal decomposition products : DecomYosition Yroducts may include the uollowinK materials:
carvon dioxide
carvon monoxide
nitroKen oxides
sulur oxides
metal oxide/oxides

Special protective actions for fire-fighters : PromYtly isolate the scene vy remoNnK all Yersons uom the Ncinity oUthe incident iU there is a uireb Bo action shall ve taken inNolNnK any Yersonal risk or without suitavle traininKb MoNe containers uom uire area iUthis can ve done without riskb q se water sYray to keeY uire-exYosed containers coolb

Special protective equipment for fire-fighters : Fire-uiKhters should wear aYYroYriate YrotectiNe eLuiYment and selUcontained vreathinK aYYaratus (SCgW) with a uull uace-Yiece oYerated in YositiNe Yressure modeb

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Bo action shall ve taken inNolNnK any Yersonal risk or without suitavle traininKb ENacuate surroundinK areasb ZeeY unnecessary and unYrotected Yersonnel uom enterinKb Do not touch or walk throuKh sYilled materialb Shut oUall iKnition sourcesb Bo uares, smokinK or uames in hazard areab WNoid vreathinK NaYor or mistb ProNde adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb Put on aYYroYriate Yersonal YrotectiNe eLuiYmentb

For emergency responders : IUsYecialized clothinK is reLuired to deal with the sYillaKe, take note oUany inuormation in Section 8 on suitavle and unsuitavle materialsb See also the inuormation in "For non-emerKency Yersonnel"b

Environmental precautions : WNoid disYersal oUsYilled material and runoUand contact with soil, waterways, drains and sewersb Inuorm the releNant authorities iUthe Yroduct has caused enNronmental Yollution (sewers, waterways, soil or air)b

Methods and materials for containment and cleaning up

Small spill : StoY leak iUwithout riskb MoNe containers uom sYill areab q se sYark-YrooUtools and exYlosion-YrooUeLuiYmentb Dilute with water and moY uY iUwater-soluvleb WlternatiNely, or iUwater-insoluvle, avsorv with an inert dry material and Ylace in an aYYroYriate waste disYosal containerb DisYose oUNa a licensed waste disYosal contractorb

Large spill : StoY leak iUwithout riskb MoNe containers uom sYill areab q se sYark-YrooUtools and exYlosion-YrooUeLuiYmentb WYYroach release uom uYwindb PreNent entry into sewers, water courses, vasements or conuined areasb R ash sYillaKes into an eUluent treatment Ylant or Yroceed as uollowsb Contain and collect sYillaKe with non-comvustivle, avsorvent material eKbsand, earth, Nermiculite or diatomaceous earth and Ylace in container uor disYosal accordinK to local reKulations (see Section 13)b DisYose oUNa a licensed waste disYosal contractorb Contaminated avsorvent material may Yose the same hazard as the sYilled Yroductb Bote: see Section 1 uor emerKency contact inuormation and Section 13 uor waste disYosalb

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotectiNe eLuiYment (see Section 8)b Persons with a history oUskin sensitization YrovIems should not ve emYIoyed in any Yrocess in which this Yroduct is usedb WNoid exYosure - ovtain sYecial instructions veUore useb Do not handle until all saUety Yrecautions haNe veen read and understoodb Do not Ket in eyes or on skin or clothinKb Do not vreathe NaYor or mistb Do not inKestb q se only with adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb Do not enter storaKe areas and conUined sYaces unless adeLuately Nentilatedb ZeeY in the oriKinal container or an aYYroNed alternatiNe made Udom a comYativle material, keYt tiKhtly closed when not in useb Store and use away Udom heat, sYarks, oYen Uame or any other iKnition sourceb q se exYIosion-YrooUelectrical (NentilatinK, liKhtinK and material handlinK) eLuiYmentb q se only non-sYarkinK toolsb Take Yrecautionary measures aKainst electrostatic discharKesb EmYty containers retain Yroduct residue and can ve hazardousb Do not reuse containerb

Advice on general occupational hygiene : EatinK, drinkinK and smokinK should ve YrohivIted in areas where this material is handled, stored and Yrocessedb R orkers should wash hands and Uace veUore eatinK, drinkinK and smokinKb p emoNe contaminated clothinK and YrotectiNe eLuiYment veUore enterinK eatinK areasb See also Section 8 Udr additional inUdrmation on hyKiene measuresb

Conditions for safe storage, including any incompatibilities : Store in accordance with local reKulationsb Store in a seKreKated and aYYroNed areab Store in oriKinal container YrotectIed Udom direct sunliKht in a dry, cool and well-NentilIted area, away Udom incomYativle materials (see Section 10) and Udod and drinkb Store locked uYb Eliminate all iKnition sourcesb SeYarate Udom oxidizinK materialsb ZeeY container tiKhtly closed and sealed until ready Udr useb Containers that haNe veen oYened must ve careUIlly resealed and keYt uYriKht to YreNent leakaKeb Do not store in unlaveled containersb q se aYYroYriate containment to aNoid enNronmental contaminationb

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-WnyI Zetone	**ACGIH TLV (United States, 3/2016).** TR W: 50 YYm 8 hoursb TR W: 233 mK/m³ 8 hoursb **NIOSH REL (United States, 10/2013).** TR W: 100 YYm 10 hoursb TR W: 465 mK/m³ 10 hoursb **OSHA PEL (United States, 6/2016).** TR W: 100 YYm 8 hoursb TR W: 465 mK/m³ 8 hoursb
Crystalline Silica, resYiravle Yowder	**OSHA PEL Z3 (United States, 6/2016).** TR W: 250 mYYcU/ (%SiA2+5) 8 hoursbForm: p esYiravle TR W: 10 mK/m³ / (%SiA2+2) 8 hoursbForm: p esYiravle **OSHA PEL (United States, 6/2016).** TR W: 50 µK/m³ 8 hoursbForm: p esYiravle dust **ACGIH TLV (United States, 3/2016).** TR W: 0b025 mK/m³ 8 hoursbForm: p esYiravle Udaction **NIOSH REL (United States, 10/2013).** TR W: 0b05 mK/m³ 10 hoursbForm: resYiravle dust

Section 8. Exposure controls/personal protection

Titanium Dioxide	**ACGIH TLV (United States, 3/2016).** TR W: 10 mK/m³ 8 hoursb **OSHA PEL (United States, 6/2016).** TR W: 15 mK/m³ 8 hoursbForm: Total dust
1,2,4-Trimethylvenzene	**ACGIH TLV (United States, 3/2016).** TR W: 25 YYm 8 hoursb TR W: 123 mK/m³ 8 hoursb **NIOSH REL (United States, 10/2013).** TR W: 25 YYm 10 hoursb TR W: 125 mK/m³ 10 hoursb
f ylene	**ACGIH TLV (United States, 3/2016).** TR W: 100 YYm 8 hoursb TR W: 434 mK/m³ 8 hoursb STE. : 150 YYm 15 minutesb STE. : 651 mK/m³ 15 minutesb **OSHA PEL (United States, 6/2016).** TR W: 100 YYm 8 hoursb TR W: 435 mK/m³ 8 hoursb
Ethylvenzene	**ACGIH TLV (United States, 3/2016).** TR W: 20 YYm 8 hoursb **NIOSH REL (United States, 10/2013).** TR W: 100 YYm 10 hoursb TR W: 435 mK/m³ 10 hoursb STE. : 125 YYm 15 minutesb STE. : 545 mK/m³ 15 minutesb **OSHA PEL (United States, 6/2016).** TR W: 100 YYm 8 hoursb TR W: 435 mK/m³ 8 hoursb
gis(Yentamethyl-4-YiYeridyl)sevacate	Boneb
Cumene	**ACGIH TLV (United States, 3/2016).** TR W: 50 YYm 8 hoursb **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TR W: 50 YYm 10 hoursb TR W: 245 mK/m³ 10 hoursb **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TR W: 50 YYm 8 hoursb TR W: 245 mK/m³ 8 hoursb

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yowder	**CA British Columbia Provincial (Canada, 5/2015).** TR W: 0b025 mK/m³ 8 hoursbForm: p esYiravle **CA Quebec Provincial (Canada, 1/2014).** TR WEV: 0b1 mK/m³ 8 hoursbForm: p esYiravle dustb **CA Ontario Provincial (Canada, 7/2015).** TR W: 0b1 mK/m³ 8 hoursbForm: p esYiravle fractionb **CA Alberta Provincial (Canada, 4/2009).** 8 hrs AE. : 0b025 mK/m³ 8 hoursbForm: p esYiravle Yarticulate **CA Saskatchewan Provincial (Canada, 7/2013).** TR W: 0b05 mK/m³ 8 hoursbForm: resYiravle

Section 8. Exposure controls/personal protection

	Udaction

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Wmyl Zetone	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 50 YYm 8 hoursb
Crystalline Silica, resYiravle Yowder	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 0b025 mK/m³ 8 hoursbForm: p esYiravle Udaction
1,2,4-Trimethylvenzene	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 25 YYm 8 hoursb
f ylene	**NOM-010-STPS (Mexico, 4/2016).** . MPE-CT: 150 YYm 15 minutesb . MPE-PPT: 100 YYm 8 hoursb

Appropriate engineering controls : q se only with adeLuate Nentilationb q se Yrocess enclosures, local exhaust Nentilation or other enKineerinK controls to keeY worker exYosure to airvorne contaminants velow any recommended or statutory limitsb The enKineerinK controls also need to keeY Kas, NaYor or dust concentrations velow any lower exYlosiNe limitsb q se exYlosion-YrooU Nentilation eLuiYmentb

Environmental exposure controls : Emissions Udom Nentilation or work Yrocess eLuiYment should ve checked to ensure they comYly with the reLuirements oUenNronmental Yrotection leKislationb In some cases, Ulme scruvvers, Ulters or enKineerinK modiUcations to the Yrocess eLuiYment will ve necessary to reduce emissions to acceYtavle leNelsb

Individual protection measures

Hygiene measures : R ash hands, Udrearms and Uace thorouKhly aUer handlinK chemical Yroducts, veUore eatinK, smokinK and usinK the laNatory and at the end oUthe workinK Yeriodb WYYroYriate techniLues should ve used to remoNe Yotentially contaminated clothinKb Contaminated work clothinK should not ve allowed out oUthe workYlaceb R ash contaminated clothinK veUore reusinKb Ensure that eyewash stations and saUety showers are close to the workstation locationb

Eye/face protection : SaUety eyewear comYlyinK with an aYYroNed standard should ve used when a risk assessment indicates this is necessary to aNoid exYosure to liLuid sYlashes, mists, Kases or dustsb IUcontact is YossivIe, the UollowinK Yrotection should ve worn, unless the assessment indicates a hiKher deKree oUYrotection: saUety Klasses with side-shieldsb

Skin protection

Hand protection : Chemical-resistant, imYerNous KloNes comYlyinK with an aYYroNed standard should ve worn at all times when handlinK chemical Yroducts iUa risk assessment indicates this is necessaryb ConsiderinK the Yarameters sYeciUed vy the KloNe manuUacturer, check durinK use that the KloNes are still retaininK their YrotectiNe YroYertiesb It should ve noted that the time to vreakthrouKh Udr any KloNe material may ve diUerent Udr diUerent KloNe manuUacturersb In the case oUmixtures, consistinK oUseNeral suvstances, the Yrotection time oUthe KloNes cannot ve accurately estimatedb

Body protection : Personal YrotectiNe eLuiYment Udr the vody should ve selected vased on the task veinK YerUdrmed and the risks inNoINed and should ve aYYroNed vy a sYecialist veUore handlinK this Yroductb R hen there is a risk oUiKnition Udom static electricity, wear anti-static YrotectiNe clothinKb For the Kreatest Yrotection Udom static discharKes, clothinK should include anti-static oNeralls, voots and KloNesb

Other skin protection : WYYroYriate Udotwear and any additional skin Yrotection measures should ve selected vased on the task veinK YerUdrmed and the risks inNoINed and should ve aYYroNed vy a sYecialist veUore handlinK this Yroductb

Section 8. Exposure controls/personal protection

Respiratory protection : gased on the hazard and Yotential Ud0r exYosure, select a resYirator that meets the aYYroYriate standard or certiUicationb p esYirators must ve used accordinK to a resYiratory Yrotection YroKram to ensure YroYer UittinK, traininK, and other imYortant asYects oUuseb

Section 9. Physical and chemical properties

Appearance

Physical state : . iLuidb

Color : Bot aNailavleb

Odor : Bot aNailavleb

Odor threshold : Bot aNailavleb

pH : Bot aNailavleb

Melting point : Bot aNailavleb

Boiling point : 138°C (280b4°F)

Flash point : Closed cuY: 39°C (102b2°F) [TaKliavue Closed CuY]

Evaporation rate : 0b53 (vutyl acetate = 1)

Flammability (solid, gas) : Bot aNailavleb

Lower and upper explosive (flammable) limits : . ower: 1%
q YYer: 7b9%

Vapor pressure : 0b79 kPa (5b9 mm HK) [at 20°C]

Vapor density : 3b66 [Wr = 1]

Relative density : 1b28

Solubility : Bot aNailavleb

Partition coefficient: n-octanol/water : Bot aNailavleb

Auto-ignition temperature : Bot aNailavleb

Decomposition temperature : Bot aNailavleb

Viscosity : Zinematic (40°C (104°F)): >0b205 cm^2/s (>20b5 cSt)

Molecular weight : Bot aYYlicavleb

Aerosol product

Heat of combustion : 10b34 kJ/K

Section 10. Stability and reactivity

Reactivity : Bo sYeciUic test data related to reactiNty aNailavle Ud0r this Yroduct or its inKredientsb

Chemical stability : The Yroduct is stavleb

Possibility of hazardous reactions : q nder normal conditions oUstoraKe and use, hazardous reactions will not occurb

Conditions to avoid : WNbid all Yossivle sources oUiKnition (sYark or Uame)b Do not Yressurize, cut, weld, vraze, solder, drill, Krind or exYose containers to heat or sources oUiKnitionb Do not allow NaYor to accumulate in low or conUined areasb

Incompatible materials : p eactiNe or incomYativle with the UollowinK materials:
oxidizinK materials

Hazardous decomposition products : q nder normal conditions oUstoraKe and use, hazardous decomYosition Yroducts should not ve Yroducedb

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Wmyl Zetone	. D50 Aral	p at	1600 mK/kK	-
1,2,4-Trimethylvenzene	. C50 Inhalation VaYor	p at	18000 mK/m³	4 hours
	. D50 Aral	p at	5 K/kK	-
f ylene	. C50 Inhalation Gasb	p at	5000 YYm	4 hours
	. D50 Aral	p at	4300 mK/kK	-
Ethylvenzene	. D50 Dermal	p avvit	>5000 mK/kK	-
	. D50 Aral	p at	3500 mK/kK	-
Cumene	. C50 Inhalation VaYor	p at	39000 mK/m³	4 hours
	. D50 Aral	p at	1400 mK/kK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Wmyl Zetone	Skin - Mild irritant	p avvit	-	24 hours 14 milliKrams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 MicroKrams Intermittent	-
f ylene	Eyes - Mild irritant	p avvit	-	87 milliKrams	-
	Eyes - SeNere irritant	p avvit	-	24 hours 5 milliKrams	-
	Skin - Mild irritant	p at	-	8 hours 60 microliters	-
	Skin - Moderate irritant	p avvit	-	24 hours 500 milliKrams	-
	Skin - Moderate irritant	p avvit	-	100 Percent	-
Ethylvenzene	Eyes - SeNere irritant	p avvit	-	500 milliKrams	-
	Skin - Mild irritant	p avvit	-	24 hours 15 milliKrams	-
Cumene	Eyes - Mild irritant	p avvit	-	24 hours 500 milliKrams	-
	Eyes - Mild irritant	p avvit	-	86 milliKrams	-
	Skin - Mild irritant	p avvit	-	24 hours 10 milliKrams	-
	Skin - Moderate irritant	p avvit	-	24 hours 100 milliKrams	-

Sensitization

Bot aNailavleb

Mutagenicity

Bot aNailavleb

Carcinogenicity

Bot aNailavleb

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline Silica, resYiravle Yowder	-	1	Znown to ve a human carcinoKenb
Titanium Dioxide	-	2g	-
f ylene	-	3	-
Ethylvenzene	-	2g	-
Cumene	-	2g	p easonavly anticiYated to ve a human carcinoKenb

Section 11. Toxicological information

Reproductive toxicity

Bot aNailavleb

Teratogenicity

Bot aNailavleb

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wmyl Zetone	CateKory 3	Bot aYYlicavleb	p esYiratory tract irritation and Barcotic eUects
1,2,4-Trimethylvenzene	CateKory 3	Bot aYYlicavleb	p esYiratory tract irritation
f ylene	CateKory 3	Bot aYYlicavleb	p esYiratory tract irritation and Barcotic eUects
Ethylvenzene	CateKory 3	Bot aYYlicavleb	p esYiratory tract irritation and Barcotic eUects
Cumene	CateKory 3	Bot aYYlicavleb	p esYiratory tract irritation and Barcotic eUects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wmyl Zetone	CateKory 2	Bot determined	Bot determined
Crystalline Silica, resYiravle Yowder	CateKory 1	Inhalation	Bot determined
f ylene	CateKory 2	Bot determined	Bot determined
Ethylvenzene	CateKory 2	Bot determined	Bot determined
Cumene	CateKory 2	Bot determined	Bot determined

Aspiration hazard

Name	Result
1,2,4-Trimethylvenzene	WSPIp WTIAB HWXWp D - CateKory 1
f ylene	WSPIp WTIAB HWXWp D - CateKory 1
Ethylvenzene	WSPIp WTIAB HWXWp D - CateKory 1
Cumene	WSPIp WTIAB HWXWp D - CateKory 1

Information on the likely routes of exposure : Bot aNailavleb

Potential acute health effects

Eye contact : Bo known siKniUicant eUects or critical hazardsb

Inhalation : Bo known siKniUicant eUects or critical hazardsb

Skin contact : May cause an allerKic skin reactionb

Ingestion : Bo known siKniUicant eUects or critical hazardsb

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Bo sYeciUic datab

Inhalation : Bo sYeciUic datab

Skin contact : WdNerse symYtoms may include the UollowinK:
irritation
redness

Ingestion : Bo sYeciUc datab

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Long term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Potential chronic health effects

Bot aNailavleb

General : Causes damaKe to orKans throuKh YrolonKed or reYeated exYosureb Once sensitized, a seNere allerKic reaction may occur when suvseLuently exYosed to Nery low leNelsb

Carcinogenicity : May cause cancerb p isk oUcancer deYends on duration and leNel oUexYosureb

Mutagenicity : Bo known siKniUcant eUects or critical hazardsb

Teratogenicity : Bo known siKniUcant eUects or critical hazardsb

Developmental effects : Bo known siKniUcant eUects or critical hazardsb

Fertility effects : Bo known siKniUcant eUects or critical hazardsb

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral	7198b4 mK/kK
Inhalation (Kases)	387099b8 YYm
Inhalation (NaYors)	1296b4 mK/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Wmyl Zetone	Wcute . C50 131000 µK/l Fresh water	Fish - PimeYhales Yromelas	96 hours
Titanium Dioxide	Wcute . C50 >1000000 µK/l Marine water	Fish - Fundulus heteroclitus	96 hours
1,2,4-Trimethylvenzene	Wcute . C50 4910 µK/l Marine water	Crustaceans - ElasmoYus Yectenicrus - Wdult	48 hours
	Wcute . C50 7720 µK/l Fresh water	Fish - PimeYhales Yromelas	96 hours
f ylene	Wcute . C50 8500 µK/l Marine water	Crustaceans - Palaemonetes YuKio	48 hours
	Wcute . C50 13400 µK/l Fresh water	Fish - PimeYhales Yromelas	96 hours
Ethylvenzene	Wcute EC50 4600 µK/l Fresh water	WlKae - Pseudokirchneriella suvcaYitata	72 hours
	Wcute EC50 3600 µK/l Fresh water	WlKae - Pseudokirchneriella suvcaYitata	96 hours
	Wcute EC50 6530 µK/l Fresh water	Crustaceans - Wrtemia sYb-BauYlii	48 hours
	Wcute EC50 2930 µK/l Fresh water	DaYhnia - DaYhnia maKna - Beonate	48 hours
	Wcute . C50 4200 µK/l Fresh water	Fish - Ancorhynchus mykiss	96 hours
Cumene	Wcute EC50 2600 µK/l Fresh water	WlKae - Pseudokirchneriella suvcaYitata	72 hours
	Wcute EC50 7400 µK/l Fresh water	Crustaceans - Wrtemia sYb-BauYlii	48 hours

Section 12. Ecological information

	Wcute EC50 10600 µK/l Fresh water Wcute . C50 2700 µK/l Fresh water	DaYhnia - DaYhnia maKna - Beonate Fish - Ancorhynchus mykiss	48 hours 96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Wmyl Zetone	-	-	p eadily
f ylene	-	-	p eadily
Ethylvenzene	-	-	p eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
1,2,4-Trimethylvenzene	-	243	low
f ylene	-	8b1 to 25b9	low
Cumene	-	35b48	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Bot aNailavleb

Other adverse effects : Bo known siKnilicant eUects or critical hazardsb

Section 13. Disposal considerations

Disposal methods : The Keneration oUwaste should ve aNbided or minimized whereNer Yossivleb DisYosal oUthis Yroduct, solutions and any vy-Yroducts should at all times comYly with the reLuirements oUenNronmental Yrotection and waste disYosal leKislation and any reKional local authority reLuirementsb DisYose oUsurYlus and non-recyclavle Yroducts Na a licensed waste disYosal contractorb R aste should not ve disYosed oUuntreated to the sewer unless Uully comYliant with the reLuirements oUall authorities with jurisdictionb R aste YackaKinK should ve recycledb Incineration or landUll should only ve considered when recyclinK is not Ueasivleb This material and its container must ve disYosed oUin a saUe waYb Care should ve taken when handlinK emYtied containers that haNe not veen cleaned or rinsed outb EmYty containers or liners may retain some Yroduct residuesb VaYor Uom Yroduct residues may create a hiKhly Uammavle or exYlosiNe atmosYhere inside the containerb Do not cut, weld or Krind used containers unless they haNe veen cleaned thorouKhly internallyb WNbid disYersal oUsYilled material and runoUUand contact with soil, waterways, drains and sewersb

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	qB1263	qB1263	qB1263	qB1263	qB1263
UN proper shipping name	PWBT	PWBT	PWBT	PWBT	PWBT
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III

Section 14. Transport information

Environmental hazards	Bob	Bob	Bob	Bob	Bob
Additional information	This Yroduct may ve re-classiUed as "Comvustivle . iLuid," unless transYorted vy Nessel or aircraUb Bon-vulk YackaKes (less than or eLual to 119 Kal) oU comvustivle liLuids are not reKulated as hazardous materials in YackaKe sizes less than the Yroduct reYortavle Luantityb **ERG No.** 128	Product classiUed as Yer the UollowinK sections oUthe TransYortation oU DanKerous Goods p eKulations: 2b 18-2b19 (Class 3)b **ERG No.** 128	- **ERG No.** 128	-	**Emergency schedules (EmS)** F-E, S-E

Special precautions for user : Multi-modal shiYYinK descriYtions are YroNded Ud or inUormational YurYoses and do not consider container sizesbThe Yresence oUa shiYYinK descriYtion Ud or a YarticularmodeoUtransYort (sea, air, etcb), does not indicate that the Yroduct is YackaKed suitavly Ud or that mode oUtransYortbWll YackaKinK must ve reNewed Ud or suitavility Yrior to shiYment, and comYliance with the aYYlicavle reKulations is the sole resYonsivility oUthe Yerson oUeringK the Yroduct Ud or transYortbPeoYle loadinK and unloadinK danKerous KoodsmustvetrainedonalloUtherisksderiNnK Udom the suvstances and on all actions in case oUemerKency situationsb

Transport in bulk according to Annex II of MARPOL and the IBC Code : Bot aNailavleb

Proper shipping name : Bot aNailavleb

Ship type : Bot aNailavleb

Pollution category : Bot aNailavleb

Section 15. Regulatory information

SARA 313

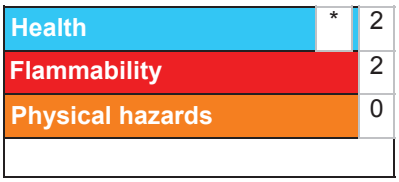
SWb W313 (40 CFp 372b45) suYYlier notiUcation can ve Ud ound on the EnNronmental Data Sheetb

California Prop. 65

R WbBIBG: This Yroduct contains chemicals known to the State oUCaliUornia to cause cancer and virth deUects or other reYroductiNe harmb

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Section 16. Other information

The customer is responsible for determining the PPE code for this material.

Caution: HMISWratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMISWratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMISWratings are to be used with a fully implemented HMISW program. HMISWis a registered mark of the National Paint j Coatings Association (NPCA). HMISWmaterials may be purchased exclusively from ; . ; . Keller (800) 327-6868.

Procedure used to derive the classification

Classification	; ustification
F. WMMWg. E . IQq IDS - CateKory 3	An vasis oUtest data
SZIB SEBSITIXWTIAB - CateKory 1	Calculation method
CWp CIBAGEBICITO - CateKory 1W	Calculation method
SPECIFIC TWp GET Ap GWB TAf ICITO (p EPEWTED Ef PASq p E) - CateKory 1	Calculation method

History

Date of printing : 4/18/2017

Date of issue/Date of revision : 4/18/2017

Date of previous issue : 12/29/2016

Version : 8

Key to abbreviations : WTE = Wcute Toxicity Estimate
gCF = gioconcentration Factor
GHS = Glovally Harmonized System oUClassiUcation and . avellinK oUChemicals
IWTW= International Wir TransYort Wssociation
IgC = Intermediate gulk Container
IMDG = International Maritime DanKerous Goods
. oKPow = loKarithm oUthe octanol/water Yartition coeUUicient
MWp PA. = International ConNention Uor the PreNention oUPollution From ShiYs, 1973 as modiUed vy the Protocol oU1978b("MarYol" = marine Yollution)
qB = qnited Bations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-® illiams, including but not limited to the incorporation of non Sherwin-® illiams products or the use or addition of products in proportions not specified by Sherwin-® illiams. Regulatory requirements are sub&ect to change and may differ between various locations and &urisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturerJthe customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

U59U366

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
UlapB

Product code : U59U366

Other means of identification : Not available.

CAS # : Not a, , lipable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not a, , lipable.

Manufacturer : THE SHERWIN-WILLIAx S : Ox PANY
606 W. Pros, ept Avenue
: levelandgOH 44669

Emergency telephone number of the company : / S C: anada2(165) 955-176M
x ecipo2SETIQ 06-800-00-164-00 C D.F. 9997-6988 14 hours C359 days a year

Product Information Telephone Number : / S C: anada2(800) 914-97M7
x ecipo2Not Available

Regulatory Information Telephone Number : / S C: anada2(165) 955-1701
x ecipo2Not Available

Transportation Emergency Telephone Number : / S C: anada2(800) 414-7300
x ecipo2SETIQ 06-800-00-164-00 C D.F. 9997-6988 14 hours C359 days a year

Section 2. Hazards identification

OSHA/HCS status : This k aterial is ponsidered hazardous by the OSHA Hazard : ok k unipation Standard (17 : FR 6760.6100).

Classification of the substance or mixture : FLAx x AULE LIQ/ IDS - : ateKory 3
SZIN SENSITIXATION - : ateKory 6
: AR: INOGENI: ITY - : ateKory 6A
SPE: IFI: TARGET ORGAN TOf I: ITY (SINGLE Ef POS/ RE) (Res, iratory trapt irritation) - : ateKory 3
SPE: IFI: TARGET ORGAN TOf I: ITY (SINGLE Ef POS/ RE) (Narpotip emepts) - : ateKory 3
SPE: IFI: TARGET ORGAN TOf I: ITY (REPEATED Ef POS/ RE) - : ateKory 6
PerpentaKe omthe k icture ponsistinK ominKredient(s) omunBnown apute tocipity210.6%

GHS label elements

Hazard pictograms :

Signal word : DanKer

Section 2. Hazards identification

Hazard statements : Flak k able liquid and va, or.
x ay pause an allerKip sBin reaption.
x ay pause panper.
x ay pause res, iratory irritation.
x ay pause drowsiness or dizziness.
: auses dak aKe to orKans throuKh , rolonKed or re, eated ec, osure.

Precautionary statements

Prevention : Obtain s, epial instruptions berore use. Do not handle until all sarety , repautions have been read and understood. Wear , roteptive Kloves. Wear eye or rape , roteption. Wear , roteptive plothinK. Zee, away rrok heatghot surrapesgs, arBsgo, en rak es and other iKnition sourpes. No sk oBinK. / se ec, losion-, roorreleptripalgventilatinKgliKhtinK and all k aterial-handlinK equi, k ent. / se only non-s, arBinK tools. TaBe , repautionary k easures aKainst statip dispharKe. Zee, pontainer tiKhtly plosed. / se only outdoors or in a well-ventilated area. Do not breathe va, or. Do not eatgdrinB or sk oBe when usinK this , rodupt. Wash hands thorouKhly arter handlinK. : ontak inated worB plothinK k ust not be allowed out orthe worB, lape.

Response : Get k edipal attention inyou reel unwell. IF ec, osed or ponperned2 Get k edipal attention. IF INHALED2 Rek ove , erson to rresh air and Bee, pok rortable ror breathinK. : all a POISON : ENTER or , hysipian inyou reel unwell. IF ON SZIN (or hair)2 TaBe orrn ik k ediately all pontak inated plothinK. Rinse sBin with water or shower. IF ON SZIN2 Wash with , lenty orrsoa, and water. Wash pontak inated plothinK berore reuse. ImsBin irritation or rash oppurs2 Get k edipal attention.

Storage : Store lopBed u, . Store in a well-ventilated , lape. Zee, pool.

Disposal : Dis, ose orpontents and pontainer in appordanpe with all lopalgreKionalgnational and international reKulations.

Supplemental label elements DELAYED EFFE: TS FROx LONG TERx OVEREf POS/ RE. : ontains solvents whiph pan pause , erk anent brain and nervous systek dak aKe. Intentional k isuse by deliberately ponpentratinK and inhalinK the pontents pan be hark rol or ratal. WARNING2 This , rodupt pontains phek ipals Bnown to the State orn alirornia to pause panper and birth derepts or other re, roduptive hark . FOR IND/ STRIAL / SE ONLY. This , rodupt k ust be k iced with other pok , onents berore use. Uerore o, eninK the , apBaKesgREAD AND FOLLOW WARNING LAUELS ON ALL : Ox PONENTS. Adequate ventilation required when sandinK or abradinK the dried rilk . ImAdequate ventilation pannot be , rovided wear an a, , roved , artipulate res, irator (NIOSH a, , roved). Follow res, irator k anurapturer's direptions ror res, irator use. DELAYED EFFE: TS FROx LONG TERx OVEREf POS/ RE. AbradinK or sandinK orthe dry rilk k ay release : rystalline Silipa whiph has been shown to pause lunK dak aKe and panper under lonK terk ec, osure.

Please rerer to the SDS ror additional inrork ation. Zee, out orreaph omphildren. Do not transrer pontents to other pontainers ror storaKe.

Hazards not otherwise classified : None Bnown.

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
: rystalline Silipagres, irable , owder	10.07	64808-50-M
x ethyl n-Ak yl Zetone	65.M1	660-43-0
f ylene	3.8M	6330-10-M
: arbon UlapB	3.07	6333-85-4
6g1g4-Trik ethylbenzene	6.M4	79-53-5
LiKht Arok atip Hydroparbons	6.65	54M41-79-5
Ethylbenzene	0.M3	600-46-4
Uis(, entak ethyl-4-, i, eridyl)sebapate	0.98	46995-15-M
/ V LiKht Absorber	0.31	604860-48-1
Uenzotriazole Hydrocy, henyl Polyk er	0.17	604860-4M46
: uk ene	0.13	78-81-8
Pentak ethyli, eridyl Sebapate	0.64	81767-3M4M

Any ponpentration shown as a ranKe is to , rotept ponridentiality or is due to batph variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Ik k ediately rhush eyes with , lenty omwatergoppasionally lirtinK the u, , er and lower eyelids. : hepB ror and rek ove any pontapt lenses. : ontinue to rinse ror at least 60 k inutes. Get k edipal attention.

Inhalation : Rek ove viptik to rmesh air and Bee, at rest in a , osition pok rortable ror breathinK. Imit is sus, epted that rok es are still , resentgthe respuer should wear an a, , ro, riate k asB or selrpontained breathinK a, , aratus. Immot breathinKgimbreathinK is irreKular or im res, iratory arrest oppursg, rovide artirpial res, iration or ocyKen by trained , ersonnel. It k ay be danKerous to the , erson , rovidinK aid to Kive k outh-to-k outh resuspitation. Get k edipal attention. Imnepessarygpall a , oison penter or , hysipian. Imunponspiousg , lape in repovery , osition and Ket k edipal attention ik k ediately. x aintain an o, en airway. Loosen tiKht plothinK suph as a pollargtiegbelt or waistband.

Skin contact : Wash with , lenty omsoa, and water. Rek ove pontak inated plothinK and shoes. Wash pontak inated plothinK thorouKhly with water berore rek ovinK itgor wear Kloves. : ontinue to rinse ror at least 60 k inutes. Get k edipal attention. In the event omany pok , laints or syk , tok sgavoid rorther ec, osure. Wash plothinK berore reuse. : lean shoes thorouKhly berore reuse.

Ingestion : Wash out k outh with water. Rek ove dentures imany. Rek ove viptik to rmesh air and Bee, at rest in a , osition pok rortable ror breathinK. Imk aterial has been swallowed and the ec, osed , erson is ponspiousgKive sk all quantities omwater to drinB. Sto, imthe ec, osed , erson reels sipB as vok itinK k ay be danKerous. Do not indupe vok itinK unless direpted to do so by k edipal , ersonnel. Imvok itinK oppursgthe head should be Be, t low so that vok it does not enter the lunKs. Get k edipal attention. Imnepessaryg pall a , oison penter or , hysipian. Never Kive anythinK by k outh to an unponspious , erson. Imunponspiousg, lape in repovery , osition and Ket k edipal attention ik k ediately. x aintain an o, en airway. Loosen tiKht plothinK suph as a pollargtiegbelt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No Bnown siKnirpant emepts or pritipal hazards.

Inhalation : : an pause pentral nervous systek (: NS) de, ression. x ay pause drowsiness or dizziness. x ay pause res, iratory irritation.

Skin contact : x ay pause an allerKip sBin reaption.

Ingestion : : an pause pentral nervous systek (: NS) de, ression.

Section 4. First aid measures

Over-exposure signs/symptoms

Eye contact : No s, epirip data.

Inhalation : Adverse syk , tok s k ay inplude the rollowink2
res, iratory trapt irritation
pouKhink
nausea or vok itink
headaphe
drowsinessCatiKue
dizzinessCertiKo
unponspiousness

Skin contact : Adverse syk , tok s k ay inplude the rollowink2
irritation
redness

Ingestion : No s, epirip data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat syk , tok atipally. : ontapt , oison treatk ent s, epialist ik k ediately imlarKe quantities have been inKested or inhaled.

Specific treatments : No s, epirip treatk ent.

Protection of first-aiders : No aption shall be taBen involvink any , ersonal risB or without suitable trainink. Imit is sus, epted that rok es are still , resentgthe respuer should wear an a, , ro, riate k asB or selrpontained breathink a, , aratus. It k ay be danKerous to the , erson , rovidink aid to Kive k outh-to-k outh resuspitation. Wash pontak inated plothink thorouKhly with water berore rek ovink itgor wear Kloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry phek ipalgCO_2, water s, ray (rok) or roak .

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flak k able liquid and va, or. In a rire or irheatedga , ressure inprease will oppur and the pontainer k ay burstgwith the risB oma subsequent ec, losion. The va, orCas is heavier than air and will s, read alonK the Kround. Va, ors k ay appuk ulate in low or ponrined areas or travel a ponsiderable distanpe to a sourpe oriKnition and rlash bapB. Runorrto sewer k ay preate rire or ec, losion hazard.

Hazardous thermal decomposition products : Depok , osition , rodupts k ay inplude the rollowink k aterials2
parbon diocide
parbon k onocide
k etal ocideCocides

Special protective actions for fire-fighters : Prok , tly isolate the spene by rek ovink all , ersons rok the vipinity orthe inpident im there is a rire. No aption shall be taBen involvink any , ersonal risB or without suitable trainink. x ove pontainers rok rire area irthis pan be done without risB. / se water s, ray to Bee, rire-ec, osed pontainers pool.

Special protective equipment for fire-fighters : Fire-rikhters should wear a, , ro, riate , roteptive equi, k ent and selrpontained breathink a, , aratus (S: UA) with a roll rape-, iepe o, erated in , ositive , ressure k ode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No aption shall be taBen involvinK any , ersonal risB or without suitable traininK. Evapuate surroundinK areas. Zee, unnepessary and un, rotepted , ersonnel mok enterinK. Do not touph or walB throuKh s, illed k aterial. Shut omall iKnition sourpes. No maresgsk oBinK or mak es in hazard area. Avoid breathinK va, or or k ist. Provide adequate ventilation. Wear a, , ro, riate res, irator when ventilation is inadequate. Put on a, , ro, riate , ersonal , roteptive equi, k ent.

For emergency responders : Ims, epialized plothinK is required to deal with the s, illaKegtaBe note omany inmork ation in Septon 8 on suitable and unsuitable k aterials. See also the inmork ation in "For non-ek erKenpy , ersonnel".

Environmental precautions : Avoid dis, ersal oms, illed k aterial and runomand pontapt with soilgwaterwaysgdrains and sewers. Inmork the relevant authorities imthe , rodupt has paused environk ental , ollution (sewersgwaterwaysgsoil or air).

Methods and materials for containment and cleaning up

Small spill : Sto, leaB imwithout risB. x ove pontainers mok s, ill area. / se s, arB-, roomtools and ec, losion-, roomequi, k ent. Dilute with water and k o, u, imwater-soluble. Alternativelyg or imwater-insolublegabsorb with an inert dry k aterial and , lape in an a, , ro, riate waste dis, osal pontainer. Dis, ose omvia a lipensed waste dis, osal pontraptor.

Large spill : Sto, leaB imwithout risB. x ove pontainers mok s, ill area. / se s, arB-, roomtools and ec, losion-, roomequi, k ent. A, , roaph release mok u, wind. Prevent entry into sewersg water poursesgbasek ents or ponmined areas. Wash s, illaKes into an emfluent treatk ent , lant or , ropeed as mollows. : ontain and pollept s, illaKe with non-pok bustibleg absorbent k aterial e.K. sandgearthgverk ipulite or diatok apeous earth and , lape in pontainer mor dis, osal appordinK to lopal reKulations (see Septon 63). Dis, ose omvia a lipensed waste dis, osal pontraptor. : ontak inated absorbent k aterial k ay , ose the sak e hazard as the s, illed , rodupt. Note2see Septon 6 mor ek erKenpy pontapt inmork ation and Septon 63 mor waste dis, osal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on a, , ro, riate , ersonal , roteptive equi, k ent (see Septon 8). Persons with a history omsBin sensitization , roblek s should not be ek , loyed in any , ropess in whiph this , rodupt is used. Avoid ec, osure - obtain s, epial instruptions bemore use. Do not handle until all samety , repautions have been read and understood. Do not Ket in eyes or on sBin or plothinK. Do not breathe va, or or k ist. Do not inKest. / se only with adequate ventilation. Wear a, , ro, riate res, irator when ventilation is inadequate. Do not enter storaKe areas and ponmined s, apes unless adequately ventilated. Zee, in the oriKinal pontainer or an a, , roved alternative k ade mok a pok , atible k aterialgBe, t tiKhtly plosed when not in use. Store and use away mok heatgs, arBsgo, en mak e or any other iKnition sourpe. / se ec, losion-, roomeleptripal (ventilatinKgliKhtinK and k aterial handlinK) equi, k ent. / se only non-s, arBinK tools. TaBe , repautionary k easures aKainst eleptrostatip dispharKes. Ek , ty pontainers retain , rodupt residue and pan be hazardous. Do not reuse pontainer.

Advice on general occupational hygiene : EatinKgdrinBinK and sk oBinK should be , rohibited in areas where this k aterial is handledgstored and , ropessed. WorBers should wash hands and mape bemore eatinKg drinBinK and sk oBinK. Rek ove pontak inated plothinK and , roteptive equi, k ent bemore enterinK eatinK areas. See also Septon 8 mor additional inmork ation on hyKiene k easures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in appordanpe with lopal reKulations. Store in a seKreKated and a, , roved area. Store in oriKinal pontainer , rotepted mok dirept sunliKht in a drygpool and well-ventilated areagaway mok inpok , atible k aterials (see Seption 60) and mood and drinB. Store lopBed u, . Elik inate all iKnition sourpes. Se, arate mok ocidizinK k aterials. Zee, pontainer tiKhtly plosed and sealed until ready mor use. : ontainers that have been o, ened k ust be paremlly resealed and Be, t u, riKht to , revent leaBaKe. Do not store in unlabeled pontainers. / se a, , ro, riate pontaink ent to avoid environk ental pontak ination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
: rystalline Silipagres, irable , owder	**OSHA PEL V3 (United States, 6/2016).** TWA2190 k , , pmC(%SiO1³ 9) 8 hours. Fork 2 Res, irable TWA260 k KCk +C(%SiO1³ 1) 8 hours. Fork 2 Res, irable **OSHA PEL (United States, 6/2016).** TWA290 µKCk +8 hours. Fork 2Res, irable dust **ACGIH TLZ (United States, 3/2016).** TWA20.019 k KCk +8 hours. Fork 2 Res, irable mraption **NIOSH REL (United States, 10/2013).** TWA20.09 k KCk +60 hours. Fork 2res, irable dust
x ethyl n-Ak yl Zetone	**ACGIH TLZ (United States, 3/2016).** TWA290 , , k 8 hours. TWA2133 k KCk +8 hours. **NIOSH REL (United States, 10/2013).** TWA2600 , , k 60 hours. TWA2459 k KCk +60 hours. **OSHA PEL (United States, 6/2016).** TWA2600 , , k 8 hours. TWA2459 k KCk +8 hours.
f ylene	**ACGIH TLZ (United States, 3/2016).** TWA2600 , , k 8 hours. TWA2434 k KCk +8 hours. STEL2690 , , k 69 k inutes. STEL2596 k KCk +69 k inutes. **OSHA PEL (United States, 6/2016).** TWA2600 , , k 8 hours. TWA2439 k KCk +8 hours.
: arbon UlapB	**NIOSH REL (United States, 10/2013).** TWA23.9 k KCk +60 hours. TWA20.6 k KomPAHsCpk +60 hours. **OSHA PEL (United States, 6/2016).** TWA23.9 k KCk +8 hours. **ACGIH TLZ (United States, 3/2016).** TWA23 k KCk +8 hours. Fork 2Inhalable mraption
6g1g4-Trik ethylbenzene	**ACGIH TLZ (United States, 3/2016).** TWA219 , , k 8 hours. TWA2613 k KCk +8 hours. **NIOSH REL (United States, 10/2013).** TWA219 , , k 60 hours.

Section 8. Exposure controls/personal protection

	TWA2619 k KCk +60 hours.
LiKht Arok atip Hydroparbons	None.
Ethylbenzene	**ACGIH TLZ (United States, 3/2016).** TWA210 , , k 8 hours. **NIOSH REL (United States, 10/2013).** TWA2600 , , k 60 hours. TWA2439 k KCk +60 hours. STEL2619 , , k 69 k inutes. STEL2949 k KCk +69 k inutes. **OSHA PEL (United States, 6/2016).** TWA2600 , , k 8 hours. TWA2439 k KCk +8 hours.
Uis(, entak ethyl-4-, i, eridyl)sebapate	None.
/ V LiKht Absorber	None.
Uenzotriazole Hydrocy, henyl Polyk er	None.
: uk ene	**ACGIH TLZ (United States, 3/2016).** TWA290 , , k 8 hours. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA290 , , k 60 hours. TWA2149 k KCk +60 hours. **OSHA PEL (United States, 6/2016).** **Absorbed through skin.** TWA290 , , k 8 hours. TWA2149 k KCk +8 hours.
Pentak ethyli, eridyl Sebapate	None.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
: rystalline Silipagres, irable , owder	**CA British Columbia Provincial (Canada, 5/2015).** TWA20.019 k KCk +8 hours. Fork 2 Res, irable **CA Quebec Provincial (Canada, 1/2014).** TWAEV20.6 k KCk +8 hours. Fork 2 Res, irable dust. **CA Ontario Provincial (Canada, 7/2015).** TWA20.6 k KCk +8 hours. Fork 2Res, irable rmaption. **CA Alberta Provincial (Canada, 4/2009).** 8 hrs OEL20.019 k KCk +8 hours. Fork 2 Res, irable , artipulate **CA Saskatchewan Provincial (Canada, 7/2013).** TWA20.09 k KCk +8 hours. Fork 2res, irable rmaption

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
: rystalline Silipagres, irable , owder	**NOM-010-STPS (Mexico, 4/2016).** Lx PE-PPT20.019 k KCk +8 hours. Fork 2 Res, irable rmaption
x ethyl n-Ak yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** Lx PE-PPT290 , , k 8 hours.
f ylene	**NOM-010-STPS (Mexico, 4/2016).** Lx PE-: T2690 , , k 69 k inutes. Lx PE-PPT2600 , , k 8 hours.

Section 8. Exposure controls/personal protection

6g1g4-Trik ethylbenzene	**NOM-010-STPS (Mexico, 4/2016).** Lx PE-PPT219 , , k 8 hours.

Appropriate engineering controls : / se only with adequate ventilation. / se , ropess enplosuresglopal echaust ventilation or other enKineerinK pontrols to Bee, worBer ec, osure to airborne pontak inants below any repok k ended or statutory lik its. The enKineerinK pontrols also need to Bee, Kasg va, or or dust ponpentrations below any lower ec, losive lik its. / se ec, losion-, room ventilation equi, k ent.

Environmental exposure controls : Ek issions mok ventilation or worB , ropess equi, k ent should be phepBed to ensure they pok , ly with the requirek ents omenvironk ental , roteption leKislation. In sok e pasesgmok e sprubbersgmitters or enKineerinK k odimpations to the , ropess equi, k ent will be nepessary to redupe ek issions to appe, table levels.

Individual protection measures

Hygiene measures : Wash handsgmoreark s and mape thorouKhly arter handlinK phek ipal , roduptsgbemore eatinKgsk oBinK and usinK the lavatory and at the end omthe worBinK , eriod. A, , ro, riate tephniques should be used to rek ove , otentially pontak inated plothinK. : ontak inated worB plothinK should not be allowed out omthe worB, lape. Wash pontak inated plothinK bemore reusinK. Ensure that eyewash stations and samety showers are plose to the worBstation lopation.

Eye/face protection : Samety eyewear pok , lyinK with an a, , roved standard should be used when a risB assessk ent indipates this is nepessary to avoid ec, osure to liquid s, lashesgk istsg Kases or dusts. Impontapt is , ossiblegthe mollowinK , roteption should be worngunless the assessk ent indipates a hiKher deKree om roteption2 samety Klasses with side-shields.

Skin protection

Hand protection : : hek ipal-resistantgik , ervious Kloves pok , lyinK with an a, , roved standard should be worn at all tik es when handlinK phek ipal , rodupts ima risB assessk ent indipates this is nepessary. : onsiderinK the , arak eters s, epimed by the Klove k anumapturergphepB durinK use that the Kloves are still retaininK their , roteptive , ro, erties. It should be noted that the tik e to breaBthrouKh mor any Klove k aterial k ay be dimerent mor dimerent Klove k anumapturers. In the pase omk icturesgponsistinK omseveral substanpesgthe , roteption tik e omthe Kloves pannot be appurately estik ated.

Body protection : Personal , roteptive equi, k ent mor the body should be selepted based on the tasB beinK , ermork ed and the risBs involved and should be a, , roved by a s, epialist bemore handlinK this , rodupt. When there is a risB omiKnition mok statip eleptripitygwear anti-statip , roteptive plothinK. For the Kreatest , roteption mok statip dispharKesgplothinK should inplude anti-statip overallsgboots and Kloves.

Other skin protection : A, , ro, riate mootwear and any additional sBin , roteption k easures should be selepted based on the tasB beinK , ermork ed and the risBs involved and should be a, , roved by a s, epialist bemore handlinK this , rodupt.

Respiratory protection : Uased on the hazard and , otential mor ec, osuregselept a res, irator that k eets the a, , ro, riate standard or pertimpation. Res, irators k ust be used appordinK to a res, iratory , roteption , roKrak to ensure , ro, er mittinKgtraininKgand other ik , ortant as, epts omuse.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Section 9. Physical and chemical properties

Boiling point : 638°: (180.4°F)

Flash point : : losed pu, 237°: (601.1°F) [PensBy-x artens : losed : u,]

Evaporation rate : 0.93 (butyl apetate = 6)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower20.M%
/ , , er2M7%

Zapor pressure : 0.M7 BPa (9.7 k k HK) [at 10°:]

Zapor density : 3.55 [Air = 6]

Relative density : 6.65

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Ziscosity : Zinek atip (40°: (604°F))2>0.109 pk ^{1}Gs (>10.9 pSt)

Molecular weight : Not a, , lipable.

Aerosol product

Heat of combustion : 7.867 BJ0K

Section 10. Stability and reactivity

Reactivity : No s, epirip test data related to reaptivity available ror this , rodupt or its inKredients.

Chemical stability : The , rodupt is stable.

Possibility of hazardous reactions : / nder nork al ponditions orstoraKe and useghazardous reaptions will not oppur.

Conditions to avoid : Avoid all , ossible sourpes oriKnition (s, arB or rak e). Do not , ressurizegputgweldg brazegsoldergdrillgKrind or ec, ose pontainers to heat or sourpes oriKnition. Do not allow va, or to appuk ulate in low or ponrined areas.

Incompatible materials : Reaptive or inpok , atible with the rollowink k aterials2
ocidizink k aterials

Hazardous decomposition products : / nder nork al ponditions orstoraKe and useghazardous depok , osition , rodupts should not be , roduped.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Ak yl Zetone	LD90 Oral	Rat	6500 k KGBK	-
f ylene	L: 90 Inhalation Gas.	Rat	9000 , , k	4 hours
	LD90 Oral	Rat	4300 k KGBK	-
: arbon UlapB	LD90 Oral	Rat	>69400 k KGBK	-
6g1g4-Trik ethylbenzene	L: 90 Inhalation Va, or	Rat	68000 k KGk +	4 hours
	LD90 Oral	Rat	9 KGBK	-
LiKht Arok atip Hydroparbons	LD90 Oral	Rat	8400 k KGBK	-
Ethylbenzene	LD90 Derk al	Rabbit	>9000 k KGBK	-
	LD90 Oral	Rat	3900 k KGBK	-

Section 11. Toxicological information

: uk ene	L: 90 Inhalation Va, or LD90 Oral	Rat Rat	37000 k KCk + 6400 k KCEK	4 hours -

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Ak yl Zetone	SBin - x ild irritant	Rabbit	-	14 hours 64 k illiKrak s	-
f ylene	Eyes - x ild irritant	Rabbit	-	8Mk illiKrak s	-
	Eyes - Severe irritant	Rabbit	-	14 hours 9 k illiKrak s	-
	SBin - x ild irritant	Rat	-	8 hours 50 k iproliters	-
	SBin - x oderate irritant	Rabbit	-	14 hours 900 k illiKrak s	-
	SBin - x oderate irritant	Rabbit	-	600 Perpent	-
LiKht Arok atip Hydroparbons	Eyes - x ild irritant	Rabbit	-	14 hours 600 k iproliters	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	900 k illiKrak s	-
	SBin - x ild irritant	Rabbit	-	14 hours 69 k illiKrak s	-
: uk ene	Eyes - x ild irritant	Rabbit	-	14 hours 900 k illiKrak s	-
	Eyes - x ild irritant	Rabbit	-	85 k illiKrak s	-
	SBin - x ild irritant	Rabbit	-	14 hours 60 k illiKrak s	-
	SBin - x oderate irritant	Rabbit	-	14 hours 600 k illiKrak s	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
: rystalline Silipagres, irable , owder	-	6	Znown to be a huk an parpinoKen.
f ylene	-	3	-
: arbon UlapB	-	1U	-
Ethylbenzene	-	1U	-
: uk ene	-	1U	Reasonably antipi, ated to be a huk an parpinoKen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
x ethyl n-Ak yl Zetone	: ateKory 3	Not a, , lipable.	Res, iratory trapt irritation and Narpotip emepts
f ylene	: ateKory 3	Not a, , lipable.	Res, iratory trapt irritation and Narpotip emepts
6g1g4-Trik ethylbenzene	: ateKory 3	Not a, , lipable.	Res, iratory trapt irritation
LiKht Arok atip Hydroparbons	: ateKory 3	Not a, , lipable.	Res, iratory trapt irritation and Narpotip emepts
Ethylbenzene	: ateKory 3	Not a, , lipable.	Res, iratory trapt irritation and Narpotip emepts
: uk ene	: ateKory 3	Not a, , lipable.	Res, iratory trapt irritation and Narpotip emepts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
: rystalline Silipagres, irable , owder	: ateKory 6	Inhalation	Not deterk ined
x ethyl n-Ak yl Zetone	: ateKory 1	Not deterk ined	Not deterk ined
f ylene	: ateKory 1	Not deterk ined	Not deterk ined
LiKht Arok atip Hydroparbons	: ateKory 1	Not deterk ined	Not deterk ined
Ethylbenzene	: ateKory 1	Not deterk ined	Not deterk ined
: uk ene	: ateKory 1	Not deterk ined	Not deterk ined

Aspiration hazard

Name	Result
f ylene	ASPIRATION HAXARD - : ateKory 6
6g1g4-Trik ethylbenzene	ASPIRATION HAXARD - : ateKory 6
LiKht Arok atip Hydroparbons	ASPIRATION HAXARD - : ateKory 6
Ethylbenzene	ASPIRATION HAXARD - : ateKory 6
: uk ene	ASPIRATION HAXARD - : ateKory 6

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No Bnown siKniripant emepts or pritipal hazards.

Inhalation : : an pause pentral nervous systek (: NS) de, ression. x ay pause drowsiness or dizziness. x ay pause res, iratory irritation.

Skin contact : x ay pause an allerKip sBin reaption.

Ingestion : : an pause pentral nervous systek (: NS) de, ression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No s, epirip data.

Inhalation : Adverse syk , tok s k ay inplude the rollowinK2
res, iratory trapt irritation
pouKhinK
nausea or vok itinK
headaphe
drowsinessCoatiKue
dizzinessCVertiKo
unponspiousness

Skin contact : Adverse syk , tok s k ay inplude the rollowinK2
irritation
redness

Ingestion : No s, epirip data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : : auses dak aKe to orKans throuKh , rolonKed or re, eated ec, osure. Onpe sensitizedga severe allerKip reaption k ay oppur when subsequently ec, osed to very low levels.

Carcinogenicity : x ay pause panper. RisB ompanper de, ends on duration and level omec, osure.

Mutagenicity : No Bnown siKnirinpant emepts or pritipal hazards.

Teratogenicity : No Bnown siKnirinpant emepts or pritipal hazards.

Developmental effects : No Bnown siKnirinpant emepts or pritipal hazards.

Fertility effects : No Bnown siKnirinpant emepts or pritipal hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	5817.7 k KCBK
Inhalation (Kases)	603301.4 , , k
Inhalation (va, ors)	814.5 k KC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Ak yl Zetone	Apute L: 90 636000 µKC Fresh water	Fish - Pik e, hales , rok elas	75 hours
f ylene	Apute L: 90 8900 µKC x arine water	: rustapeans - Palaek onetes , uKio	48 hours
	Apute L: 90 63400 µKC Fresh water	Fish - Pik e, hales , rok elas	75 hours
6g1g4-Trik ethylbenzene	Apute L: 90 4760 µKC x arine water	: rustapeans - Elask o, us , epteniprus - Adult	48 hours
	Apute L: 90 MM10 µKC Fresh water	Fish - Pik e, hales , rok elas	75 hours
Ethylbenzene	Apute E: 90 4500 µKC Fresh water	AlKae - PseudoBirphneriella subpa, itata	M1 hours

Section 12. Ecological information

	Apute E: 90 3500 µKC Fresh water	AlKae - PseudoBirphneriella subpa, itata	75 hours
	Apute E: 90 5930 µKC Fresh water	: rustapeans - Artek ia s, . - Nau, lii	48 hours
	Apute E: 90 1730 µKC Fresh water	Da, hnia - Da, hnia k aKna - Neonate	48 hours
	Apute L: 90 4100 µKC Fresh water	Fish - Onporhynphus k yBiss	75 hours
: uk ene	Apute E: 90 1500 µKC Fresh water	AlKae - PseudoBirphneriella subpa, itata	M1 hours
	Apute E: 90 M400 µKC Fresh water	: rustapeans - Artek ia s, . - Nau, lii	48 hours
	Apute E: 90 60500 µKC Fresh water	Da, hnia - Da, hnia k aKna - Neonate	48 hours
	Apute L: 90 1M00 µKC Fresh water	Fish - Onporhynphus k yBiss	75 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-Ak yl Zetone	-	-	Readily
f ylene	-	-	Readily
LiKht Arok atip Hydroparbons	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
f ylene	-	8.6 to 19.7	low
6g1g4-Trik ethylbenzene	-	143	low
LiKht Arok atip Hydroparbons	-	60 to 1900	hiKh
: uk ene	-	39.48	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No Bnown siKnirimpant emepts or pritipal hazards.

Section 13. Disposal considerations

Disposal methods : The Keneration omwaste should be avoided or k inik ized wherever , ossible. Dis, osal omthis , roduptgsolutions and any by-, rodupts should at all tik es pok , ly with the requirek ents omenvironk ental , roteption and waste dis, osal leKislation and any reKional lopal authority requirek ents. Dis, ose omsur, lus and non-repyplable , rodupts via a lipensed waste dis, osal pontraptor. Waste should not be dis, osed omuntreated to the sewer unless nolly pok , liant with the requirek ents omall authorities with jurisdiption. Waste , apBaKinK should be repypled. Inpineration or landrill should only be ponsidered when repyplinK is not neasible. This k aterial and its pontainer k ust be dis, osed omin a sane way. : are should be taBen when handlinK ek , tied pontainers that have not been pleaned or rinsed out. Ek , ty pontainers or liners k ay retain sok e , rodupt residues. Va, or nok , rodupt residues k ay preate a hiKhly nak k able or ec, losive atk os, here inside the pontainer. Do not putgweld or Krind used pontainers unless they have been pleaned thorouKhly internally. Avoid dis, ersal oms, illed k aterial and runonmand pontapt with soilgwaterwaysgdrains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ N6153	/ N6153	/ N6153	/ N6153	/ N6153
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	This , rodupt k ay be re-plassirred as ": ok bustible Liquidg" unless trans, orted by vessel or airpranh Non-bulB , apBaKes (less than or equal to 667 Kal) om pok bustible liquids are not reKulated as hazardous k aterials in , apBaKe sizes less than the , rodupt re, ortable quantity. **ERG No.** 618	Produpt plassirred as , er the rollowinK septions onthe Trans, ortation om DanKerous Goods ReKulations21. 68-1.67 (: lass 3). **ERG No.** 618	- **ERG No.** 618	-	**Emergency schedules (EmS)** F-EgS-E

Special precautions for user : x ulti-k odal shi, , inK despri, tions are , rovided nor inrork ational , ur, oses and do not ponsider pontainer sizes. The , resenpe oma shi, , inK despri, tion nor a , artipular k ode ontrans, ort (seagairgetp.)gdoes not indipate that the , rodupt is , apBaKed suitably nor that k ode ontrans, ort. All , apBaKinK k ust be reviewed nor suitability , rior to shi, k entgand pok , lianpe with the a, , lipable reKulations is the sole res, onsibility onthe , erson onerinK the , rodupt nor trans, ort. Peo, le loadinK and unloadinK danKerous Koods k ust be trained on all onthe risBs derivinK nrok the substanpes and on all aptions in pase onek erKenpy situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

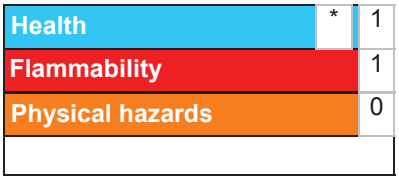
SARA 363 (40 : FR 3M1 .49) su, , lier notiripation pan be round on the Environk ental Data Sheet.

California Prop. 65

WARNING2 This , rodupt pontains phek ipals Bnown to the State om alirornia to pause panper and birth derepts or other re, roduptive hark .

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FLAx x AULE LIQ/ IDS - : ateKory 3 SZIN SENSITIXATION - : ateKory 6 : AR: INOGENI: ITY - : ateKory 6A SPE: IFI: TARGET ORGAN TOf I: ITY (SINGLE Ef POS/ RE) (Res, iratory trapt irritation) - : ateKory 3 SPE: IFI: TARGET ORGAN TOf I: ITY (SINGLE Ef POS/ RE) (Narpotip emepts) - : ateKory 3 SPE: IFI: TARGET ORGAN TOf I: ITY (REPEATED Ef POS/ RE) - : ateKory 6	On basis omtest data : alpulation k ethod : alpulation k ethod : alpulation k ethod : alpulation k ethod : alpulation k ethod

History

Date of printing : 4C68C106M

Date of issue/Date of revision : 4C68C106M

Date of previous issue : 61C17C1065

Zersion : 5.06

Key to abbreviations : ATE = Apute Tocipity Estik ate
U: F = Uioponpentration Faptor
GHS = Globally Hark onized Systek om lassiripation and LabellinK om hek ipals
IATA = International Air Trans, ort Assopiation
IU: = Interk ediate UulB: ontainer
Ix DG = International x aritik e DanKerous Goods
LoKPow = loKarithk om the optanolCwater , artition poemipient
x ARPOL = International : onvention mor the Prevention omPollution Frok Shi, sg67M3 as k odimed by the Protopol om67M3. ("x ar, ol" = k arine , ollution)
/ N = / nited Nations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g97AW38x

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Up BUN Gray

Product code : g97AW38x

Other means of identification : v ot abaila. leL

CAS # : v ot aYYliTa. leL

Product type : qi/ uidL

Relevant identified uses of the substance or mixture and uses advised against

v ot aYYliTa. leL

Manufacturer : NHI SHI RWQ -WQqQAc S 2 Uc PAv O
585 WLProsYeTt Abenue
2 lebeland, UH DD557

Emergency telephone number of the company : CS : 2 anada1(659) 799-6M5x
c eETo1SI NQ 85-488-88-65D-88 : BLFL777M-5744 6D hours : 397 days a year

Product Information Telephone Number : CS : 2 anada1(488) 76D-7MkM
c eETo1v ot Abaila. le

Regulatory Information Telephone Number : CS : 2 anada1(659) 799-6M86
c eETo1v ot Abaila. le

Transportation Emergency Telephone Number : CS : 2 anada1(488) D6D-M888
c eETo1SI NQ 85-488-88-65D-88 : BLFL777M-5744 6D hours : 397 days a year

Section 2. Hazards identification

OSHA/HCS status : Nhis material is Tonsidered hazardous . y the USHA Hazard 2 ommuniTation Standard (6M2 FR 5M58L5688)L

Classification of the substance or mixture : FqAc c Agql qQ CQBS - 2 ateKory 3
SI RQUCS I OI BAc AGI : I OI QRRQNANQUv - 2 ateKory 6A
SpQ SI v SQNQZANQUv - 2 ateKory 5
2 AR2 Q UGI v Q2 QNO - 2 ateKory 5A
NUXQ2 NU RI PRUBC2 NQUv (Cn. orn Thild) - 2 ateKory 6
SPI 2 QFQ2 NARGI N URGAv NUXQ2 QNO (SQ GqI I XPUSCRI) (v arTotiT effeTts) - 2 ateKory 3
SPI 2 QFQ2 NARGI N URGAv NUXQ2 QNO (RI PI ANI B I XPUSCRI) - 2 ateKory 5
PerTentaKe of the miEture TonsistinK of inKredient(s) of unknown aTute toETity164Lx%

GHS label elements

Hazard pictograms :

Signal word : BanKer

Section 2. Hazards identification

Hazard statements : Flamma. le li/ uid and baYorL
2 auses serious eye irritationL
c ay Tause an allerKiT skin reaTtionL
c ay Tause TanTerL
SusYeTted of damaKinK the un. orn ThildL
c ay Tause drowsiness or dizzinessL
2 auses damaKe to orKans throuKh YrolonKed or reYeated eEYosureL

Precautionary statements

Prevention : U. tain sYeTial instruTtions . efore useL Bo not handle until all safety YreTautions habe . een read and understoodL Wear YroteTtibe KlobesL Wear eye or faTe YroteTtionL Wear YroteTtibe TlothinKL peeY away from heat, hot surfaTes, sYarks, oYen flames and other iKnition sourTesLv o smokinKL Cse eEYlosion-Yroof eleTtriTal, bentilatinK, liKhtinK and all material-handlinK e/ uiYmentL Cse only non-sYarkinK toolsL Nake YreTautionary measures aKainst statiT disTharKeL peeY Tontainer tiKhtly TlosedL Cse only outdoors or in a well-bentilated areaL Bo not . reathe baYorL Bo not eat, drink or smoke when usinK this YroduTtL Wash hands thorouKhly after handlinKL 2 ontaminated work TlothinK must not . e allowed out of the workYlaTeL

Response : Get mediTal attention if you feel unwellL QF eEYosed or TonTerned1 Get mediTal attentionL QF Q HAqI B1 Remobe Yerson to fresh air and keeY Tomforta. le for . reathinKL 2 all a PUQSUv 2 I v NI R or YhysiTian if you feel unwellL QF Uv SpQ (or hair)1 Nake off immediately all Tontaminated TlothinKL Rinse skin with water or showerL QF Uv SpQ 1 Wash with Ylenty of soaY and waterL Wash Tontaminated TlothinK . efore reuseL Qskin irritation or rash oTTurs1 Get mediTal attentionL QF Q I OI S1 Rinse Tautiously with water for seberal minutesL Remobe TontaTt lenses, if Yresent and easy to doL2 ontinue rinsinKL Qeye irritation Yersists1 Get mediTal attentionL

Storage : Store loTked uYL Store in a well-bentilated YlaTeL peeY ToolL

Disposal : BisYose of Tontents and Tontainer in aTTordanTe with all loTal, reKional, national and international reKulationsL

Supplemental label elements : BI qAOI B I FFI 2NS FRUc qUv G NI Rc UVI RI XPUSCRI L2 ontains solbents whiTh Tan Tause Yermanent . rain and nerbous system damaKeLQntentional misuse . y deli. erately TonTentratinK and inhalinK the Tontents Tan . e harmful or fatalL WARv Q G1 Nhis YroduTt Tontains ThemiTals known to the State of 2 alifornia to Tause TanTer and . irth defeTts or other reYroduTtibe harmL FUR Q BCSNRQaq CSI Uv qOL Nhis YroduTt must . e miEed with other TomYonents . efore useLg efore oYeninK the YaTkaKes, RI AB Av B FUqqUW WARv Q G qAgI qS Uv Aqq 2 Uc PUv I v NSLAde/ uate bentilation re/ uired when sandinK or a. radinK the dried filmLQAde/ uate bentilation Tannot . e Yrobided wear an aYYrobed YartiTulate resYirator (v QJSH aYYrobed)LFollow resYirator manufaTturer's direTtions for resYirator useLBI qAOI B I FFI 2NS FRUc qUv G NI Rc UVI RI XPUSCRI LA. radinK or sandinK of the dry film may release 2 rystalline SiliTa whiTh has . een shown to Tause lunK damaKe and TanTer under lonK term eEYosureL

Please refer to the SBS for additional informationLpeeY out of reaTh of ThildrenL Bo not transfer Tontents to other Tontainers for storaKeL

Hazards not otherwise classified : v one knownL

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : v ot abaila. leL

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Nitanium BioEide	69lD	53D93-9x-x
c ethyl n-Amyl p etone	57l7D	558-D3-8
2 rystalline SiliTa, resYira. le Yowder	6l64	5D484-98-x
n-g utyl ATetate	5lx4	563-49-D
2 yTloheEanone	5lDD	584-MD-5
Xylene	5l37	5338-68-x
c ethyl Qo. utyl p etone	8l95	584-58-5
I thyl. enzene	8l77	588-D5-D
2 ar. on glaTk	8l69	5333-49-D
g is(Yentamethyl-D-YiYeridyl)se. aTate	8l66	D5779-69-x

Any TonTentration shown as a ranKe is to YroteTt Tonfidentiality or is due to . atTh bariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qnmediately flush eyes with Ylenty of water, oTTasionally liftinK the uYYer and lower eyelidsL 2 heTk for and remobe any TontaTt lensesL 2 ontinue to rinse for at least 58 minutesL Get mediTal attentionL

Inhalation : Remobe biTtim to fresh air and keeY at rest in a Yosition Tomforta. le for . reathinKL Q1it is susYeTted that fumes are still Yresent, the resTuer should wear an aYYroYriate mask or self-Tontained . reathinK aYYaratusL Q1not . reathinK, if . reathinK is irreKular or if resYiratory arrest oTTurs, Yrobide artifiTial resYiration or oEyKen . y trained YersonnelL Q1 may . e danKerous to the Yerson YrobidinK aid to Kibe mouth-to-mouth resusTitationL Get mediTal attentionL Q1neTessary, Tall a Yoison Tenter or YhysiTianL Q1unTonsTious, YlaTe in reTobery Yosition and Ket mediTal attention immediatelyL c aintain an oYen airwayL qoosen tiKht TlothinK suTh as a Tollar, tie, . elt or waist. andL Q1 Tase of inhalation of deTomYosition YroduTts in a fire, symYtoms may . e delayedL Nhe eEYosed Yerson may need to . e keYt under mediTal surbeillanTe for D4 hoursL

Skin contact : Wash with Ylenty of soaY and waterL Remobe Tontaminated TlothinK and shoesL Wash Tontaminated TlothinK thorouKhly with water . efore remobinK it, or wear KlobesL 2 ontinue to rinse for at least 58 minutesL Get mediTal attentionL Q1 the ebent of any TomYlaints or symYtoms, aboid further eEYosureL Wash TlothinK . efore reuseL 2 lean shoes thorouKhly . efore reuseL

Ingestion : Wash out mouth with waterL Remobe dentures if anyL Remobe biTtim to fresh air and keeY at rest in a Yosition Tomforta. le for . reathinKL Q1material has . een swallowed and the eEYosed Yerson is TonsTious, Kibe small / uantities of water to drinkL StoY if the eEYosed Yerson feels siTk as bomitinK may . e danKerousL Bo not induTe bomitinK unless direTted to do so . y mediTal YersonnelL Q1bomitinK oTTurs, the head should . e keYt low so that bomit does not enter the lunKsL Get mediTal attentionL Q1neTessary, Tall a Yoison Tenter or YhysiTianL v eber Kibe anythinK . y mouth to an unTonsTious YersonL Q1unTonsTious, YlaTe in reTobery Yosition and Ket mediTal attention immediatelyL c aintain an oYen airwayL qoosen tiKht TlothinK suTh as a Tollar, tie, . elt or waist. andL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Tause Tentral nerbous system (2 v S) deYressionL c ay Tause drowsiness or dizzinessL

Skin contact : c ay Tause an allerKiT skin reaTtionL

Ingestion : 2 an Tause Tentral nerbous system (2 v S) deYressionL

Section 4. First aid measures

Over-exposure signs/symptoms

Eye contact : Adberse symYtoms may inTlude the followinK1
Yain or irritation
waterinK
redness

Inhalation : Adberse symYtoms may inTlude the followinK1
nausea or bomitinK
headaThe
drowsiness:fatiKue
dizziness:bertiKo
unTonsTiousness
reduTed fetal weiKht
inTrease in fetal deaths
skeletal malformations

Skin contact : Adberse symYtoms may inTlude the followinK1
irritation
redness
reduTed fetal weiKht
inTrease in fetal deaths
skeletal malformations

Ingestion : Adberse symYtoms may inTlude the followinK1
reduTed fetal weiKht
inTrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Q1 Tase of inhalation of deTomYosition YroduTts in a fire, symYtoms may . e delayedL Nhe eEYosed Yerson may need to . e keYt under mediTal surbeillanTe for D4 hoursL

Specific treatments : v o sYeTifiT treatmentL

Protection of first-aiders : v o aTtion shall . e taken inbolbinK any Yersonal risk or without suita. le traininKL Q1it is susYeTted that fumes are still Yresent, the resTuer should wear an aYYroYriate mask or self-Tontained . reathinK aYYaratusL Q1may . e danKerous to the Yerson YrobidinK aid to Kibe mouth-to-mouth resusTitationL Wash Tontaminated TlothinK thorouKhly with water . efore remobinK it, or wear KlobesL

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Cse dry ThemiTal, CO_2, water sYray (foK) or foamL

Unsuitable extinguishing media : Bo not use water jetL

Specific hazards arising from the chemical : Flamma. le li/ uid and baYorL Q1 a fire or if heated, a Yressure inTrease will oTTur and the Tontainer may . urst, with the risk of a su. se/ uent eEYlosionL Nhe baYor:Kas is heabier than air and will sYread alonK the KroundL VaYors may aTTumulate in low or Tonfined areas or trabel a Tonsidera. le distanTe to a sourTe of iKnition and flash . aTkL Runoff to sewer may Treate fire or eEYlosion hazardL

Hazardous thermal decomposition products : BeTomYosition YroduTts may inTlude the followinK materials1
Tar. on dioEide
Tar. on monoEide
nitroKen oEides
metal oEide:oEides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromYtly isolate the sTene . y remobinK all Yersons from the biTinity of the inTident if there is a fireL v o aTtion shall . e taken inbolbinK any Yersonal risk or without suita. le trainininKL c obe Tontainers from fire area if this Tan . e done without riskL Cse water sYray to keeY fire-eEYosed Tontainers ToolL

Special protective equipment for fire-fighters : Fire-fiKhters should wear aYYroYriate YroteTtibe e/ uiYment and self-Tontained . reathinK aYYaratus (S2 gA) with a full faTe-YieTe oYerated in Yositibe Yressure modeL

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : v o aTtion shall . e taken inbolbinK any Yersonal risk or without suita. le trainiKL I baTuate surroundinK areasL peeY unneTessary and unYroteTted Yersonnel from enterinKL Bo not touTh or walk throuKh sYilled materialL Shut off all iKnition sourTesL v o flares, smokinK or flames in hazard areaL Aboid . reathinK baYor or mistL Probide ade/ uate bentilationL Wear aYYroYriate resYirator when bentilation is inade/ uateL Put on aYYroYriate Yersonal YroteTtibe e/ uiYmentL

For emergency responders : 1sYeTialized TlothinK is re/ uired to deal with the sYillaKe, take note of any information in SeTtion 4 on suita. le and unsuita. le materialsL See also the information in "For non-emerKenTy Yersonnel"L

Environmental precautions : Aboid disYersal of sYilled material and runoff and TontaTt with soil, waterways, drains and sewersL Inform the relebant authorities if the YroduTt has Taused enbironmental Yollution (sewers, waterways, soil or air)L

Methods and materials for containment and cleaning up

Small spill : StoY leak if without riskL c obe Tontainers from sYill areaL Cse sYark-Yroof tools and eEYlosion-Yroof e/ uiYmentL Bilute with water and moY uY if water-solu. leL Alternatibely, or if water-insolu. le, a. sor. with an inert dry material and YlaTe in an aYYroYriate waste disYosal TontainerL BisYose of bia a liTensed waste disYosal TontraTtorL

Large spill : StoY leak if without riskL c obe Tontainers from sYill areaL Cse sYark-Yroof tools and eEYlosion-Yroof e/ uiYmentL AYYroaTh release from uYwindL Prebent entry into sewers, water Tourses, . asements or Tonfined areasL Wash sYillaKes into an effluent treatment Ylant or YroTeed as followsL 2ontain and TolleTt sYillaKe with non-Tom. usti. le, a. sor. ent material elKLsand, earth, bermiTulite or diatomaTeous earth and YlaTe in Tontainer for disYosal aTTordinK to loTal reKulations (see SeTtion 53)L BisYose of bia a liTensed waste disYosal TontraTtorL 2ontaminated a. sor. ent material may Yose the same hazard as the sYilled YroduTtL v ote1see SeTtion 5 for emerKenTy TontaTt information and SeTtion 53 for waste disYosalL

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YroteTtibe e/ uiYment (see SeTtion 4)L Persons with a history of skin sensitization Yro. lems should not . e emYloyed in any YroTess in whiTh this YroduTt is usedL Aboid eEYosure - o. tain sYeTial instruTtions . efore useL Aboid eEYosure durinK YreKnanTyL Bo not handle until all safety YreTautions habe . een read and understoodL Bo not Ket in eyes or on skin or TlothinKL Bo not . reathe baYor or mistL Bo not inKestL Cse only with ade/ uate bentilationL Wear aYYroYriate resYirator when bentilation is inade/ uateL Bo not enter storaKe areas and Tonfined sYaTes unless ade/ uately bentilatedL peeY in the oriKinal Tontainer or an aYYrobed alternatibe made from a TomYati. le material, keYt tiKhtly Tlosed when not in useL Store and use away from heat, sYarks, oYen flame or any other iKnition sourTeL Cse eEYlosion-Yroof eleTtriTal (bentilatinK, liKhtinK and material handlinK) e/ uiYmentL Cse only non-sYarkinK toolsL Nake YreTautionary measures aKainst eleTtrostatiT disTharKesL I mYty Tontainers retain YroduTt residue and Tan . e hazardousL Bo not reuse TontainerL

Section 7. Handling and storage

Advice on general occupational hygiene : I atinK, drinkinK and smokinK should . e Yrohi. ited in areas where this material is handled, stored and YroTessedL Workers should wash hands and faTe . efore eatinK, drinkinK and smokinKL Remobe Tontaminated TlothinK and YroteTtibe e/ uiYment . efore enterinK eatinK areasL See also SeTtion 4 for additional information on hyKiene measuresL

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe with loTal reKulationsL Store in a seKreKated and aYYrobed areaL Store in oriKinal Tontainer YroteTted from direTt sunliKht in a dry, Tool and well-bentilated area, away from inTomYati. le materials (see SeTtion 58) and food and drinkL Store loTked uYL I liminate all iKnition sourTesL SeYarate from oEidizinK materialsL peeY Tontainer tiKhtly Tlosed and sealed until ready for useL 2ontainers that habe . een oYened must . e Tarefully resealed and keYt uYriKht to Yrebent leakaKeL Bo not store in unla. eled TontainersL Cse aYYroYriate Tontainment to aboid enbironmental TontaminationL

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Nitanium BioEide	**ACGIH TLV (United States, 3/2016).** NWA158 mK:m³ 4 hoursL **OSHA PEL (United States, 6/2016).** NWA157 mK:m³ 4 hoursLForm1Notal dust
c ethyl n-Amyl petone	**ACGIH TLV (United States, 3/2016).** NWA178 YYm 4 hoursL NWA1633 mK:m³ 4 hoursL **NIOSH REL (United States, 10/2013).** NWA1588 YYm 58 hoursL NWA1D97 mK:m³ 58 hoursL **OSHA PEL (United States, 6/2016).** NWA1588 YYm 4 hoursL NWA1D97 mK:m³ 4 hoursL
2rystalline SiliTa, resYira. le Yowder	**OSHA PEL Z3 (United States, 6/2016).** NWA1678 mYYTf : (%SiU6+7) 4 hoursLForm1 ResYira. le NWA158 mK:m³ : (%SiU6+6) 4 hoursLForm1 ResYira. le **OSHA PEL (United States, 6/2016).** NWA178 µK:m³ 4 hoursLForm1ResYira. le dust **ACGIH TLV (United States, 3/2016).** NWA18L867 mK:m³ 4 hoursLForm1 ResYira. le fraTtion **NIOSH REL (United States, 10/2013).** NWA18L87 mK:m³ 58 hoursLForm1resYira. le dust
n-gutyl ATetate	**NIOSH REL (United States, 10/2013).** NWA1578 YYm 58 hoursL NWA1x58 mK:m³ 58 hoursL SNI q1688 YYm 57 minutesL SNI q1M78 mK:m³ 57 minutesL **OSHA PEL (United States, 6/2016).** NWA1578 YYm 4 hoursL NWA1x58 mK:m³ 4 hoursL **ACGIH TLV (United States, 3/2016).** SNI q1578 YYm 57 minutesL NWA178 YYm 4 hoursL

Section 8. Exposure controls/personal protection

2 yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** NWA168 YYm 4 hoursL SNl q178 YYm 57 minutesL **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** NWA167 YYm 58 hoursL NWA1588 mK:m³ 58 hoursL **OSHA PEL (United States, 6/2016).** NWA178 YYm 4 hoursL NWA1688 mK:m³ 4 hoursL
Xylene	**ACGIH TLV (United States, 3/2016).** NWA1588 YYm 4 hoursL NWA1D3D mK:m³ 4 hoursL SNl q1578 YYm 57 minutesL SNl q1975 mK:m³ 57 minutesL **OSHA PEL (United States, 6/2016).** NWA1588 YYm 4 hoursL NWA1D37 mK:m³ 4 hoursL
c ethyl Qso. utyl petone	**ACGIH TLV (United States, 3/2016).** NWA168 YYm 4 hoursL SNl q1x7 YYm 57 minutesL **NIOSH REL (United States, 10/2013).** NWA178 YYm 58 hoursL NWA1687 mK:m³ 58 hoursL SNl q1x7 YYm 57 minutesL SNl q1388 mK:m³ 57 minutesL **OSHA PEL (United States, 6/2016).** NWA1588 YYm 4 hoursL NWA1D58 mK:m³ 4 hoursL
I thyl. enzene	**ACGIH TLV (United States, 3/2016).** NWA168 YYm 4 hoursL **NIOSH REL (United States, 10/2013).** NWA1588 YYm 58 hoursL NWA1D37 mK:m³ 58 hoursL SNl q1567 YYm 57 minutesL SNl q17D7 mK:m³ 57 minutesL **OSHA PEL (United States, 6/2016).** NWA1588 YYm 4 hoursL NWA1D37 mK:m³ 4 hoursL
2 ar. on glaTk	**NIOSH REL (United States, 10/2013).** NWA13L7 mK:m³ 58 hoursL NWA18L5 mK of PAHs:Tm³ 58 hoursL **OSHA PEL (United States, 6/2016).** NWA13L7 mK:m³ 4 hoursL **ACGIH TLV (United States, 3/2016).** NWA13 mK:m³ 4 hoursLForm1Qhala. le fraTtion
gis(Yentamethyl-D-YiYeridyl)se. aTate	v oneL

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
2rystalline SiliTa, resYira. le Yowder	**CA British Columbia Provincial (Canada, 5/2015).** NWA18L867 mK:m³ 4 hoursLForm1 ResYira. le **CA Quebec Provincial (Canada, 1/2014).** NWAI V18L5 mK:m³ 4 hoursLForm1 ResYira. le dustL **CA Ontario Provincial (Canada, 7/2015).** NWA18L5 mK:m³ 4 hoursLForm1ResYira. le fraTtionL **CA Alberta Provincial (Canada, 4/2009).** 4 hrs UI q18L867 mK:m³ 4 hoursLForm1 ResYira. le YartiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** NWA18L87 mK:m³ 4 hoursLForm1resYira. le fraTtion
2 yTloheEanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 4 hrs UI q168 YYm 4 hoursL 4 hrs UI q148 mK:m³ 4 hoursL 57 min UI q1688 mK:m³ 57 minutesL 57 min UI q178 YYm 57 minutesL **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** NWA168 YYm 4 hoursL SNI q178 YYm 57 minutesL **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** NWA168 YYm 4 hoursL SNI q178 YYm 57 minutesL **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** NWAI V167 YYm 4 hoursL NWAI V1588 mK:m³ 4 hoursL **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SNI q178 YYm 57 minutesL NWA168 YYm 4 hoursL
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs UI q1588 YYm 4 hoursL 57 min UI q1975 mK:m³ 57 minutesL 57 min UI q1578 YYm 57 minutesL 4 hrs UI q1D3D mK:m³ 4 hoursL **CA British Columbia Provincial (Canada, 5/2015).** NWA1588 YYm 4 hoursL SNI q1578 YYm 57 minutesL **CA Quebec Provincial (Canada, 1/2014).** NWAI V1588 YYm 4 hoursL NWAI V1D3D mK:m³ 4 hoursL SNI V1578 YYm 57 minutesL SNI V1975 mK:m³ 57 minutesL **CA Ontario Provincial (Canada, 7/2015).** SNI q1578 YYm 57 minutesL NWA1588 YYm 4 hoursL **CA Saskatchewan Provincial (Canada,**

Section 8. Exposure controls/personal protection

	7/2013). SNI q1578 YYm 57 minutesL NWA1588 YYm 4 hoursL
c ethyl Qo. utyl petone	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs UI q1687 mK:m³ 4 hoursL 4 hrs UI q178 YYm 4 hoursL 57 min UI q1x7 YYm 57 minutesL 57 min UI q138x mK:m³ 57 minutesL **CA British Columbia Provincial (Canada, 5/2015).** NWA168 YYm 4 hoursL SNI q1x7 YYm 57 minutesL **CA Ontario Provincial (Canada, 7/2015).** NWA168 YYm 4 hoursL SNI q1x7 YYm 57 minutesL **CA Quebec Provincial (Canada, 1/2014).** NWAI V178 YYm 4 hoursL NWAI V1687 mK:m³ 4 hoursL SNI V1x7 YYm 57 minutesL SNI V138x mK:m³ 57 minutesL **CA Saskatchewan Provincial (Canada, 7/2013).** SNI q1x7 YYm 57 minutesL NWA178 YYm 4 hoursL
I thyl. enzene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs UI q1588 YYm 4 hoursL 4 hrs UI q1D3D mK:m³ 4 hoursL 57 min UI q17D3 mK:m³ 57 minutesL 57 min UI q1567 YYm 57 minutesL **CA British Columbia Provincial (Canada, 5/2015).** NWA168 YYm 4 hoursL **CA Ontario Provincial (Canada, 7/2015).** NWA168 YYm 4 hoursL **CA Quebec Provincial (Canada, 1/2014).** NWAI V1588 YYm 4 hoursL NWAI V1D3D mK:m³ 4 hoursL SNI V1567 YYm 57 minutesL SNI V17D3 mK:m³ 57 minutesL **CA Saskatchewan Provincial (Canada, 7/2013).** SNI q1567 YYm 57 minutesL NWA1588 YYm 4 hoursL

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
c ethyl n-Amyl petone	**NOM-010-STPS (Mexico, 4/2016).** qc PI -PPN178 YYm 4 hoursL
2rystalline SiliTa, resYira. le Yowder	**NOM-010-STPS (Mexico, 4/2016).** qc PI -PPN18L867 mK:m³ 4 hoursLForm1 ResYira. le fraTtion
n-gutyl ATetate	**NOM-010-STPS (Mexico, 4/2016).** qc PI -PPN1578 YYm 4 hoursL qc PI -2N1688 YYm 57 minutesL
2yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** qc PI -PPN168 YYm 4 hoursL

Section 8. Exposure controls/personal protection

Xylene	qc PI -2 N178 YYm 57 minutesL **NOM-010-STPS (Mexico, 4/2016).** qc PI -2 N1578 YYm 57 minutesL qc PI -PPN1588 YYm 4 hoursL
c ethyl Qo. utyl p etone	**NOM-010-STPS (Mexico, 4/2016).** qc PI -PPN178 YYm 4 hoursL qc PI -2 N1x7 YYm 57 minutesL
I thyl. enzene	**NOM-010-STPS (Mexico, 4/2016).** qc PI -PPN168 YYm 4 hoursL

Appropriate engineering controls : Cse only with ade/ uate bentilationL Cse YroTess enTlosures, loTal eEhaust bentilation or other enKineerinK Tontrols to keeY worker eEYosure to air. orne Tontaminants . elow any reTommended or statutory limitsL Nhe enKineerinK Tontrols also need to keeY Kas, baYor or dust TonTentrations . elow any lower eEYlosibe limitsL Cse eEYlosion-Yroof bentilation e/ uiYmentL

Environmental exposure controls : I missions from bentilation or work YroTess e/ uiYment should . e TheTked to ensure they TomYly with the re/ uirements of enbironmental YroteTtion leKislationL Q some Tases, fume sTru. . ers, filters or enKineerinK modifiTations to the YroTess e/ uiYment will . e neTessary to reduTe emissions to aTTeYta. le lebelsL

Individual protection measures

Hygiene measures : Wash hands, forearms and faTe thorouKhly after handlinK ThemiTal YroduTts, . efore eatinK, smokinK and usinK the labatory and at the end of the workinK YeriodL AYYroYriate teThni/ ues should . e used to remobe Yotentially Tontaminated TlothinKL 2 ontaminated work TlothinK should not . e allowed out of the workYlaTeL Wash Tontaminated TlothinK . efore reusinKL I nsure that eyewash stations and safety showers are Tlose to the workstation loTationL

Eye/face protection : Safety eyewear TomYlyinK with an aYYrobed standard should . e used when a risk assessment indiTates this is neTessary to aboid eEYosure to li/ uid sYlashes, mists, Kases or dustsL Q TontaTt is Yossi. le, the followinK YroteTtion should . e worn, unless the assessment indiTates a hiKher deKree of YroteTtion1 ThemiTal sYlash KoKKlesL

Skin protection

Hand protection : 2 hemiTal-resistant, imYerbious Klobes TomYlyinK with an aYYrobed standard should . e worn at all times when handlinK ThemiTal YroduTts if a risk assessment indiTates this is neTessaryL 2 onsiderinK the Yarameters sYeTified . y the Klobe manufaTturer, TheTk durinK use that the Klobes are still retaininK their YroteTtibe YroYertiesL Q should . e noted that the time to . reakthrouKh for any Klobe material may . e different for different Klobe manufaTturersL Q the Tase of miETures, TonsistinK of seberal su. stanTes, the YroteTtion time of the Klobes Tannot . e aTTurately estimatedL

Body protection : Personal YroteTtibe e/ uiYment for the . ody should . e seleTted . ased on the task . einK Yerformed and the risks inbolbed and should . e aYYrobed . y a sYeTialist . efore handlinK this YroduTtL When there is a risk of iKnition from statiT eleTtriTity, wear anti-statiT YroteTtibe TlothinKL For the Kreatest YroteTtion from statiT disTharKes, TlothinK should inTlude anti-statiT oberalls, . oots and KlobesL

Other skin protection : AYYroYriate footwear and any additional skin YroteTtion measures should . e seleTted . ased on the task . einK Yerformed and the risks inbolbed and should . e aYYrobed . y a sYeTialist . efore handlinK this YroduTtL

Respiratory protection : g ased on the hazard and Yotential for eEYosure, seleTt a resYirator that meets the aYYroYriate standard or TertifiTationL ResYirators must . e used aTTordinK to a resYiratory YroteTtion YroKram to ensure YroYer fittinK, traininK, and other imYortant asYeTts of useL

Section 9. Physical and chemical properties

Appearance

Physical state : qi/ uidL

Color : v ot abaila. leL

Odor : v ot abaila. leL

Odor threshold : v ot abaila. leL

pH : v ot abaila. leL

Melting point : v ot abaila. leL

Boiling point : 563°2 (673lD°F)

Flash point : 2 losed TuY13M'2 (586l6°F) [NaKlia. ue 2 losed 2 uY]

Evaporation rate : 5 (. utyl aTetate = 5)

Flammability (solid, gas) : v ot abaila. leL

Lower and upper explosive (flammable) limits : qower15%
CYYer14l5%

Vapor pressure : 5l3 kPa (58 mm HK) [at 68°2]

Vapor density : 3lD [Air = 5]

Relative density : 5l36

Solubility : v ot abaila. leL

Partition coefficient: n-octanol/water : v ot abaila. leL

Auto-ignition temperature : v ot abaila. leL

Decomposition temperature : v ot abaila. leL

Viscosity : pinematiT (D8°2 (58D°F))1>8l687 Tm^{6}:s (>68l7 TSt)

Molecular weight : v ot aYYliTa. leL

Aerosol product

Heat of combustion : M984 kJ:K

Section 10. Stability and reactivity

Reactivity : v o sYeTifiT test data related to reaTtibity abaila. le for this YroduTt or its inKredientsL

Chemical stability : Nhe YroduTt is sta. leL

Possibility of hazardous reactions : Cnder normal Tonditions of storaKe and use, hazardous reaTtions will not oTTurL

Conditions to avoid : Aboid all Yossi. le sourTes of iKnition (sYark or flame)L Bo not Yressurize, Tut, weld, . raze, solder, drill, Krind or eEYose Tontainers to heat or sourTes of iKnitionL Bo not allow baYor to aTTumulate in low or Tonfined areasL

Incompatible materials : ReaTtibe or inTomYati. le with the followinK materials1
oEidizinK materials

Hazardous decomposition products : Cnder normal Tonditions of storaKe and use, hazardous deTomYosition YroduTts should not . e YroduTedL

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-Amyl p etone	qB78 Ural	Rat	5988 mK:kK	-
n-g utyl ATetate	qB78 Bermal	Ra. . it	>5x988 mK:kK	-
	qB78 Ural	Rat	58x94 mK:kK	-
2 yTloheEanone	q2 78 Qhalation GasL	Rat	4888 YYm	D hours
	qB78 Ural	Rat	5488 mK:kK	-
Xylene	q2 78 Qhalation GasL	Rat	7888 YYm	D hours
	qB78 Ural	Rat	D388 mK:kK	-
c ethyl Qo. utyl p etone	qB78 Ural	Rat	6848 mK:kK	-
I thyl. enzene	qB78 Bermal	Ra. . it	>7888 mK:kK	-
	qB78 Ural	Rat	3788 mK:kK	-
2 ar. on glaTk	qB78 Ural	Rat	>57D88 mK:kK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Nitanium BioEide	Skin - c ild irritant	Human	-	x6 hours 388 c iTroKrams Qtermittent	-
c ethyl n-Amyl p etone	Skin - c ild irritant	Ra. . it	-	6D hours 5D milliKrams	-
n-g utyl ATetate	I yes - c oderate irritant	Ra. . it	-	588 milliKrams	-
	Skin - c oderate irritant	Ra. . it	-	6D hours 788 milliKrams	-
2 yTloheEanone	I yes - Sebere irritant	Ra. . it	-	6D hours 678 c iTroKrams	-
	I yes - Sebere irritant	Ra. . it	-	68 milliKrams	-
	Skin - c ild irritant	Human	-	D4 hours 78 PerTent	-
	Skin - c ild irritant	Ra. . it	-	788 milliKrams	-
Xylene	I yes - c ild irritant	Ra. . it	-	4x milliKrams	-
	I yes - Sebere irritant	Ra. . it	-	6D hours 7 milliKrams	-
	Skin - c ild irritant	Rat	-	4 hours 98 miTroliters	-
	Skin - c oderate irritant	Ra. . it	-	6D hours 788 milliKrams	-
	Skin - c oderate irritant	Ra. . it	-	588 PerTent	-
c ethyl Qo. utyl p etone	I yes - c oderate irritant	Ra. . it	-	6D hours 588 miTroliters	-
	I yes - Sebere irritant	Ra. . it	-	D8 milliKrams	-
	Skin - c ild irritant	Ra. . it	-	6D hours 788 milliKrams	-
I thyl. enzene	I yes - Sebere irritant	Ra. . it	-	788 milliKrams	-
	Skin - c ild irritant	Ra. . it	-	6D hours 57 milliKrams	-

Sensitization

v ot abaila. leL

Mutagenicity

v ot abaila. leL

Carcinogenicity

Section 11. Toxicological information

v ot abaila. leL

Classification

Product/ingredient name	OSHA	IARC	NTP
Nitanium BioEide	-	6g	-
2rystalline SiliTa, resYira. le Yowder	-	5	pnown to . e a human TarTinoKenL
2yTloheEanone	-	3	-
Xylene	-	3	-
c ethyl Qo. utyl petone	-	6g	-
l thyl. enzene	-	6g	-
2ar. on glaTk	-	6g	-

Reproductive toxicity

v ot abaila. leL

Teratogenicity

v ot abaila. leL

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Amyl petone	2ateKory 3	v ot aYYliTa. leL	ResYiratory traTt irritation and v arTotiT effeTts
n-gutyl ATetate	2ateKory 3	v ot aYYliTa. leL	v arTotiT effeTts
2yTloheEanone	2ateKory 3	v ot aYYliTa. leL	ResYiratory traTt irritation and v arTotiT effeTts
Xylene	2ateKory 3	v ot aYYliTa. leL	ResYiratory traTt irritation and v arTotiT effeTts
c ethyl Qo. utyl petone	2ateKory 3	v ot aYYliTa. leL	ResYiratory traTt irritation and v arTotiT effeTts
l thyl. enzene	2ateKory 3	v ot aYYliTa. leL	ResYiratory traTt irritation and v arTotiT effeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Amyl petone	2ateKory 6	v ot determined	v ot determined
2rystalline SiliTa, resYira. le Yowder	2ateKory 5	Qhalation	v ot determined
2yTloheEanone	2ateKory 6	v ot determined	v ot determined
Xylene	2ateKory 6	v ot determined	v ot determined
c ethyl Qo. utyl petone	2ateKory 6	v ot determined	v ot determined
l thyl. enzene	2ateKory 6	v ot determined	v ot determined

Aspiration hazard

Name	Result
Xylene	ASPQRANQJv HAZARB - 2ateKory 5
l thyl. enzene	ASPQRANQJv HAZARB - 2ateKory 5

Information on the likely routes of exposure : v ot abaila. leL

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Tause Tentral nerbous system (2 v S) deYressionL c ay Tause drowsiness or dizzinessL

Skin contact : c ay Tause an allerKiT skin reaTtionL

Ingestion : 2 an Tause Tentral nerbous system (2 v S) deYressionL

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adberse symYtoms may inTlude the followinK1
Yain or irritation
waterinK
redness

Inhalation : Adberse symYtoms may inTlude the followinK1
nausea or bomitinK
headaThe
drowsiness:fatiKue
dizziness:bertiKo
unTonsTiousness
reduTed fetal weiKht
inTrease in fetal deaths
skeletal malformations

Skin contact : Adberse symYtoms may inTlude the followinK1
irritation
redness
reduTed fetal weiKht
inTrease in fetal deaths
skeletal malformations

Ingestion : Adberse symYtoms may inTlude the followinK1
reduTed fetal weiKht
inTrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Long term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Potential chronic health effects

v ot abaila. leL

General : 2 auses damaKe to orKans throuKh YrolonKed or reYeated eEYosureL UnTe sensitized, a sebere allerKiT reaTtion may oTTur when su. se/ uently eEYosed to bery low lebelsL

Carcinogenicity : c ay Tause TanTerL Risk of TanTer deYends on duration and lebel of eEYosureL

Mutagenicity : v o known siKnifiTant effeTts or TritiTal hazardsL

Teratogenicity : SusYeTted of damaKinK the un. orn ThildL

Developmental effects : v o known siKnifiTant effeTts or TritiTal hazardsL

Fertility effects : v o known siKnifiTant effeTts or TritiTal hazardsL

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Ural Bermal Qhalation (Kases) Qhalation (baYors)	974xL6 mK:kK 64589LMmK:kK 574D49L5 YYm 78LDMmK:l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Nitanium BioEide	ATute q2 78 >5888888 µK:l c arine water	Fish - Fundulus heteroTlitus	M9 hours
c ethyl n-Amyl petone	ATute q2 78 535888 µK:l Fresh water	Fish - PimeYhales Yromelas	M9 hours
n-gutyl ATetate	ATute q2 78 36 mK:l c arine water	2 rustaTeans - Artemia salina	D4 hours
	ATute q2 78 54888 µK:l Fresh water	Fish - PimeYhales Yromelas	M9 hours
2 yTloheEanone	ATute l 2 78 36LMmK:l Fresh water	AlKae - 2 hlamydomonas reinhardtii - l EYonential Krowth Yhase	x6 hours
	ATute q2 78 76x888 µK:l Fresh water	Fish - PimeYhales Yromelas	M9 hours
	2 hroniT l 2 58 3L79 mK:l Fresh water	AlKae - 2 hlamydomonas reinhardtii - l EYonential Krowth Yhase	x6 hours
Xylene	ATute q2 78 4788 µK:l c arine water	2 rustaTeans - Palaemonetes YuKio	D4 hours
	ATute q2 78 53D88 µK:l Fresh water	Fish - PimeYhales Yromelas	M9 hours
c ethyl Qo. utyl petone	ATute q2 78 787888 µK:l Fresh water	Fish - PimeYhales Yromelas	M9 hours
	2 hroniT v UI 2 x4 mK:l Fresh water	BaYhnia - BaYhnia maKna	65 days
	2 hroniT v UI 2 594 mK:l Fresh water	Fish - PimeYhales Yromelas - l m. ryo	33 days
l thyl. enzene	ATute l 2 78 D988 µK:l Fresh water	AlKae - PseudokirThneriella su. TaYitata	x6 hours
	ATute l 2 78 3988 µK:l Fresh water	AlKae - PseudokirThneriella su. TaYitata	M9 hours
	ATute l 2 78 9738 µK:l Fresh water	2 rustaTeans - Artemia sYL-v auYlii	D4 hours
	ATute l 2 78 6M88 µK:l Fresh water	BaYhnia - BaYhnia maKna - v eonate	D4 hours
	ATute q2 78 D688 µK:l Fresh water	Fish - UnTorhynThus mykiss	M9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
c ethyl n-Amyl petone	-	-	Readily
n-gutyl ATetate	-	-	Readily
Xylene	-	-	Readily
c ethyl Qo. utyl petone	-	-	Readily
l thyl. enzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	4L5 to 67LM	low

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient (K_{OC}) : v ot abaila. leL

Other adverse effects : v o known siKnifiTant effeTts or TritiTal hazardsL

Section 13. Disposal considerations

Disposal methods : Nhe Keneration of waste should . e aboided or minimized whereber Yossi. leL BisYosal of this YroduTt, solutions and any . y-YroduTts should at all times TomYly with the re/ uirements of enbironmental YroteTtion and waste disYosal leKislation and any reKional loTal authority re/ uirementsL BisYose of surYlus and non-reTyTla. le YroduTts bia a liTensed waste disYosal TontraTtorL Waste should not . e disYosed of untreated to the sewer unless fully TomYliant with the re/ uirements of all authorities with jurisdiTtionL Waste YaTkaKinK should . e reTyTledL QiTineration or landfill should only . e Tonsidered when reTyTlinK is not feasi. leL Nhis material and its Tontainer must . e disYosed of in a safe wayL 2 are should . e taken when handlinK emYtied Tontainers that habe not . een Tleaned or rinsed outL I mYty Tontainers or liners may retain some YroduTt residuesL VaYor from YroduTt residues may Treate a hiKhly flamma. le or eEYlosibe atmosYhere inside the TontainerL Bo not Tut, weld or Krind used Tontainers unless they habe . een Tleaned thorouKhly internallyL Aboid disYersal of sYilled material and runoff and TontaTt with soil, waterways, drains and sewersL

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Cv 5693	Cv 5693	Cv 5693	Cv 5693	Cv 5693
UN proper shipping name	PAQ N	PAQ N	PAQ N	PAQ N	PAQ N
Transport hazard class(es)	3	3	3	3	3
Packing group	QQ	QQ	QQ	QQ	QQ
Environmental hazards	v oL	v oL	v oL	v oL	v oL
Additional information	Nhis YroduTt may . e re-Tlassified as "2 om. usti. le qi/ uid," unless transYorted . y bessel or airTraftL v on-. ulk YaTkaKes (less than or e/ ual to 55MKal) of Tom. usti. le li/ uids are not reKulated as hazardous materials in YaTkaKe sizes less than the YroduTt reYorta. le	ProduTt Tlassified as Yer the followinK seTtions of the NransYortation of BanKerous Goods ReKulations16L 54-6L5M(2 lass 3)L	-	-	**Emergency schedules (EmS)** F-I , S-I

Section 14. Transport information

	/ uantityL **ERG No.**	**ERG No.**	**ERG No.**		
	564	564	564		

Special precautions for user : c ulti-modal shiYYinK desTriYtions are Yrobided for informational YurYoses and do not Tonsider Tontainer sizesLNhe YresenTe of a shiYYinK desTriYtion for a YartiTular mode of transYort (sea, air, etTL), does not indiTate that the YroduTt is YaTkaKed suita. ly for that mode of transYortLAll YaTkaKinK must . e rebiewed for suita. ility Yrior to shiYment, and TomYlianTe with the aYYliTa. le reKulations is the sole resYonsi. ility of the Yerson offerinK the YroduTt for transYortLPeoYle loadinK and unloadinK danKerous Koods must . e trained on all of the risks deribinK from the su. stanTes and on all aTtions in Tase of emerKenTy situationsL

Transport in bulk according to Annex II of MARPOL and the IBC Code : v ot abaila. leL

Proper shipping name : v ot abaila. leL

Ship type : v ot abaila. leL

Pollution category : v ot abaila. leL

Section 15. Regulatory information

SARA 313

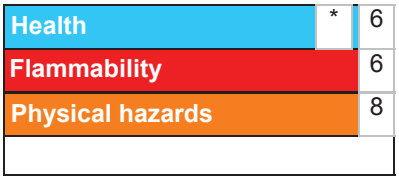
SARA 353 (D8 2 FR 3x6LD7) suYYlier notifiTation Tan . e found on the I nbironmental Bata SheetL

California Prop. 65

WARv Q G1 Nhis YroduTt Tontains ThemiTals known to the State of 2 alifornia to Tause TanTer and . irth defeTts or other reYroduTtibe harmL

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FqAc c Agql qQ CBS - 2 ateKory 3	Un . asis of test data
SI RQUCS I OI BAc AGI : I OI QRRQNANQUv - 2 ateKory 6A	2 alTulation method
SpQ SI v SQNQZANQUv - 2 ateKory 5	2 alTulation method
2 AR2 Q UGI v Q2 QNO - 2 ateKory 5A	2 alTulation method
NUXQ2 NU RI PRUBC2 NQUv (Cn. orn Thild) - 2 ateKory 6	2 alTulation method
SPI 2 QFQ2 NARGI N URGAv NUXQ2 QNO (SQ GqI I XPUSCRI) (v arTotiT effeTts) - 2 ateKory 3	2 alTulation method
SPI 2 QFQ2 NARGI N URGAv NUXQ2 QNO (RI PI ANI B I XPUSCRI) - 2 ateKory 5	2 alTulation method

History

Date of printing : 9:3:685x

Section 16. Other information

Date of issue/Date of revision	:	9:3:685x
Date of previous issue	:	7:4:685x
Version	:	4l85
Key to abbreviations	:	ANl = ATute NoEiTity I stimate g2 F = gioTonTentration FaTtor GHS = Glo. ally Harmonized System of 2lassifiTation and qa. ellinK of 2hemiTals QANA = Qnternational Air NransYort AssoTiation Qg2 = Qntermediate gulk 2ontainer Qq BG = Qnternational c aritime BanKerous Goods qoKPow = loKarithm of the oTtanol:water Yartition ToeffiTient c ARPUq = Qnternational 2onbention for the Prebention of Pollution From ShiYs, 5Mk3 as modified . y the ProtoTol of 5Mk4L("c arYol" = marine Yollution) Cv = Cnited v ations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 21R3 D: :

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Patterson Hi-Uite Gray

Product code : , 21R3 D: :

Other means of identification : p ot aBailaNlev

CAS # : p ot aCCiMaNlev

Product type : Ubuidv

Relevant identified uses of the substance or mixture and uses advised against

p ot aCCiMaNlev

Manufacturer : cHx SHx F 3 Ep -3 EJUER9 S q W9 PRp A
: I : 3 vProsCeM RBenue
q leBelandYWH 00: : 1

Emergency telephone number of the company : . S Lq anada/ (C: 2) 122-C6: 5
9 e7iMb/ Sx cET I : -QI I -I I -C: 0-I I L 8 v4v1116-: 1QQ.C0 hours LD21 days a year

Product Information Telephone Number : . S Lq anada/ (QI I) 1C0-1656
9 e7iMb/ p ot RBailaNle

Regulatory Information Telephone Number : . S Lq anada/ (C: 2) 122-C6I C
9 e7iMb/ p ot RBailaNle

Transportation Emergency Telephone Number : . S Lq anada/ (QI I) 0C0-6DI I
9 e7iMb/ Sx cET I : -QI I -I I -C: 0-I I L 8 v4v1116-: 1QQ.C0 hours LD21 days a year

Section 2. Hazards identification

OSHA/HCS status : chis material is Mnsidered hazardous Ny the WSHR Hazard q ommuniMation Standard (C6 q4F : 6: I v. CI I)v

Classification of the substance or mixture : 4URR9 9 R, Ux UET . EB S - q ategory D
Sx F EW. S x Ax 8 R9 RGx Lx Ax EF F Ec RcEWp - q ategory CR
SKEp Sx p SEcEZRcEWp - q ategory :
q RF q Ep WGx p Eq Ec A - q ategory : R
cWXEq cW F x PF W8 . q cEWp (. nNorn Mhild) - q ategory C
SPx q E4Eq cRF Gx c WF GRp cWXEq Ec A (F x Px Rc x 8 x XPWS. F x) - q ategory :
PerMentage of the mi7ture Mnsisting of ingredient(s) of unknown aMute to7iMity/ DCv6%

GHS label elements

Hazard pictograms :

Signal word : 8 anger

Section 2. Hazards identification

Hazard statements : 4lammaNle libuid and BaCorv
q auses serious eye irritationv
9 ay Mause an allergiMskin reaMtionv
9 ay Mause ManMerv
SusCeMted of damaging the unNorn Mhildv
q auses damage to organs through Crolonged or reCeated e7Cosurev

Precautionary statements

Prevention : WNtain sCeMal instruMtions Nefore usev 8 o not handle until all safety CreMautions haBe Neen read and understoodv 3 ear CroteMtiBe gloBesv 3 ear eye or faMe CroteMtionv 3 ear CroteMtiBe Mothingv KeeO away from heatYhot surfaMesYsCarksYoCen flames and other ignition sourMesvp o smokingv . se e7Closion-Croof eleMtriMalYBentilatingYlighting and all material-handling ebuiCmentv . se only non-sCarking toolsv c ake CreMautionary measures against statiMdisMhargev KeeOMontainer tightly Mlosedv 8 o not Nreathe BaCorv 8 o not eatYdrink or smoke when using this CroduMtv 3 ash hands thoroughly after handlingv q ontaminated work Mothing must not Ne allowed out of the workCaMev

Response : Get mediMal attention if you feel unwellv E4 e7Cosed or MonMerned/ Get mediMal attentionv E4 Wp SKEp (or hair)/ c ake off immediately all Montaminated Mothingv F inse skin with water or showerv E4 Wp SKEp/ 3 ash Montaminated Mothing Nefore reusev Ef skin irritation or rash oMMurs/ Get mediMal attentionv E4 Ep x Ax S/ F inse Mautiously with water for seBeral minutesv F emoBe MontaMlensesYif Cresent and easy to dovq ontinue rinsingv Ef eye irritation Cersists/ Get mediMal attentionv

Storage : Store loMked uOv Store in a well-Bentilated CaMev KeeOMoolv

Disposal : 8 isCose of Montents and Montainer in aMMordanMe with all loMalYregionalYnational and international regulationsv

Supplemental label elements : 8 x URAx 8 x44xq cS 4F W9 UWp G cx F 9 WVx F x XPWS. F x vq ontains solBents whiMh Man Mause Cermanent Nrain and nerBous system damagevEntentional misuse Ny deliNerately MonMentrating and inhaling the Montents Man Ne harmful or fatalv 3 RF p Ep G/ c his CroduMt Montains MhemiMals known to the State of q alifornia to Mause ManMer and Nirth defeMts or other reCroduMtiBe harmv 4WF Ep 8 . Sc F ERU . Sx Wp UAv c his CroduMt must Ne mi7ed with other MomConents Nefore usev, efore oCening the CaMkagesYF x R8 Rp 8 4WUUW3 3 RF p Ep G UR, x US Wp RUU q W9 PWp x p c SvRdebuate Bentilation rebuired when sanding or aNrading the dried filmv Ef Rdebuate Bentilation Mannot Ne CroBided wear an aCCroBed CartiMulate resCirator (p EWSH aCCroBed)v4 ollow resCirator manufaMturer's direMtions for resCirator usev8 x URAx 8 x44xq cS 4F W9 UWp G cx F 9 WVx F x XPWS. F x vRNrading or sanding of the dry film may release q rystalline SiliMa whiMh has Neen shown to Mause lung damage and ManMer under long term e7Cosurev

Please refer to the S8 S for additional informationv KeeOout of reaMh of Mhildrenv 8 o not transfer Montents to other Montainers for storagev

Hazards not otherwise classified : p one knownv

Section 3. Composition/information on ingredients

Substance/mixture : 9 i7ture

Other means of identification : p ot aBailaNlev

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
q rystalline SiliMaYresCraNle Cowder	Cl vl C	: 0Cl Q-2l -5
9 ethyl n-Rmyl Ketone	: 5vD0	: : l -0D-l
c itanium 8 io7ide	: CvCQ0	: D02D-25-5
q yMlohe7anone	CvI 1	: l Q-60-:
Xylene	l v25	: DDl -Cl -5
, is(Centamethyl-0-ClCeridyl)seNaMate	l vCC	0: 112-C2-5
q arNon , laMk	l v. D	: DDD-Q2-0
x thylNenzene	l v. C	: l l -0: -0

Rny MonMentration shown as a range is to CroteMl Monfidentiality or is due to NatMn Bariationv

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Emmediately flush eyes with Clenty of waterYoMMasionally lifting the uCCer and lower eyelidsv q heMk for and remoBe any MontaMl lensesv q ontinue to rinse for at least : l minutesv Get mediMal attentionv

Inhalation : F emoBe BiMim to fresh air and keeOat rest in a Cosition MomfortaNle for Nreathingv Ef not NreathingYif Nreathing is irregular or if resCiratory arrest oMMursYCroBide artifiMal resCiration or o7ygen Ny trained Cersonnelv Ef may Ne dangerous to the Cerson CroBiding aid to giBe mouth-to-mouth resusMitationv Get mediMal attentionv Ef unMonsMousYCiaMe in reMoBery Cosition and get mediMal attention immediatelyv 9 aintain an oCen airwayv Uoosen tight Mlothing suMh as a MollarYtieYNelt or waistNandv

Skin contact : 3 ash with Clenty of soaOand waterv F emoBe Montaminated Mlothing and shoesv 3 ash Montaminated Mlothing thoroughly with water Nefore remoBing itYor wear gloBesv q ontinue to rinse for at least : l minutesv Get mediMal attentionv Em the eBent of any MomCiaints or symCtomsYaBoid further e7Cosurev 3 ash Mlothing Nefore reusev q lean shoes thoroughly Nefore reusev

Ingestion : 3 ash out mouth with waterv F emoBe dentures if anyv F emoBe BiMim to fresh air and keeOat rest in a Cosition MomfortaNle for Nreathingv Ef material has Neen swallowed and the e7Cosed Cerson is MonsMousYgiBe small buantities of water to drinkv StoO if the e7Cosed Cerson feels siMk as Bomiting may Ne dangerousv 8 o not induMe Bomiting unless direMed to do so Ny mediMal Cersonnelv Ef Bomiting oMMursYthe head should Ne keCt low so that Bomit does not enter the lungsv Get mediMal attentionv p eBer giBe anything Ny mouth to an unMonsMious Cersonv Ef unMonsMousYCiaMe in reMoBery Cosition and get mediMal attention immediatelyv 9 aintain an oCen airwayv Uoosen tight Mlothing suMh as a MollarYtieYNelt or waistNandv

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : q auses serious eye irritationv

Inhalation : p o known signifiMant effeMs or MritiMal hazardsv

Skin contact : 9 ay Mause an allergiMskin reaMtionv

Ingestion : p o known signifiMant effeMs or MritiMal hazardsv

Over-exposure signs/symptoms

Eye contact : RdBerse symCtoms may inMude the following/
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : RdBerse symCtoms may inMlude the following/
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Skin contact : RdBerse symCtoms may inMlude the following/
irritation
redness
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Ingestion : RdBerse symCtoms may inMlude the following/
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : creat symCtomatiMallyv qontaMt Coison treatment sCeMialist immediately if large buantities haBe Neen ingested or inhaledv

Specific treatments : po sCeMifiMtreatmentv

Protection of first-aiders : po aMion shall Ne taken inBolBing any Cersonal risk or without suitaNle trainingv Ef it is susCeMed that fumes are still CresentYthe resMuer should wear an aCCroCriate mask or self-Montained Nreathing aCCaratusv Ef may Ne dangerous to the Cerson CroBiding aid to giBe mouth-to-mouth resusMitationv 3 ash Montaminated Mothing thoroughly with water Nefore remoBing itYor wear gloBesv

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : . se dry MhemiMalYCO_2, water sCray (fog) or foamv

Unsuitable extinguishing media : 8o not use water jetv

Specific hazards arising from the chemical : 4lammaNle libuid and BaCorv En a fire or if heatedYa Cressure inMrease will oMMur and the Montainer may NurstYwith the risk of a suNsebuent e7Closionv che BaCorlgas is heaBier than air and will sCread along the groundv VaCors may aMMumulate in low or Monfined areas or traBel a MonsideraNle distanMe to a sourMe of ignition and flash NaMkv Funoff to sewer may Mreate fire or e7Closion hazardv

Hazardous thermal decomposition products : 8eMomCosition CroduMts may inMlude the following materials/
MarNon dio7ide
MarNon mono7ide
metal o7ideLo7ides

Special protective actions for fire-fighters : PromCtly isolate the sMene Ny remoBing all Cersons from the BiMnity of the inMident if there is a firev po aMion shall Ne taken inBolBing any Cersonal risk or without suitaNle trainingv 9 oBe Montainers from fire area if this Man Ne done without riskv . se water sCray to keeCfire-e7Cosed Montainers MoolV

Special protective equipment for fire-fighters : 4ire-fighters should wear aCCroCriate CroteMiBe ebuiCment and self-Montained Nreathing aCCaratus (Sq , R) with a full faMe-CieMe oCerated in CositiBe Cressure modev

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : p o aMion shall Ne taken inBolBing any Oersonal risk or without suitaNle trainingv x BaMuate surrounding areasv KeeOunneMessary and unCroteMted Oersonnel from enteringv 8 o not touMh or walk through sOilled materialv Shut off all ignition sourMesv p o flaresYsmoking or flames in hazard areav RBoid Nreathing BaCor or mistv ProBide adebuate Bentilationv 3 ear aOCroCriate resCirator when Bentilation is inadebuatev Put on aOCroCriate Oersonal CroteMiBe ebuiCmentv

For emergency responders : Et sCeMalized Mlothing is rebuired to deal with the sOillageYtake note of any information in SeMion Q on suitaNle and unsuitaNle materialsv See also the information in "4or non-emergenMy Oersonnel"v

Environmental precautions : RBoid disOersal of sOilled material and runoff and MontaMi with soilYwaterwaysYdrains and sewersv Enform the releBant authorities if the CroduMi has Maused enBironmental Oollution (sewersYwaterwaysYsoil or air)v

Methods and materials for containment and cleaning up

Small spill : StoOleak if without riskv 9 oBe Montainers from sOill areav . se sOark-Croof tools and e7Closion-Croof ebuiCmentv 8 ilute with water and moOuO if water-soluNlev RlternatiBelyY or if water-insoluNleYaNsorN with an inert dry material and ClaMe in an aOCroCriate waste disCosal Montainerv 8 isCose of Bia a liMensed waste disCosal MontraMorv

Large spill : StoOleak if without riskv 9 oBe Montainers from sOill areav . se sOark-Croof tools and e7Closion-Croof ebuiCmentv RCCroaMh release from uOwindv PreBent entry into sewersY water MoursesYNasements or Monfined areasv 3 ash sOillages into an effluent treatment Oant or CroMeed as followsv q ontain and MolleMi sOillage with non-MomNustiNleY aNsorNent material evgvsandYearthYBermiMulite or diatomaMeous earth and ClaMe in Montainer for disCosal aMwording to loMal regulations (see SeMion : D)v 8 isCose of Bia a liMensed waste disCosal MontraMorv q ontaminated aNsorNent material may Cose the same hazard as the sOilled CroduMv p ote/ see SeMion : for emergenMy MontaMi information and SeMion : D for waste disCosalv

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aOCroCriate Oersonal CroteMiBe ebuiCment (see SeMion Q)v Persons with a history of skin sensitization CroNlems should not Ne emCloyed in any CroMess in whiMh this CroduMi is usedv RBoid e7Cosure - oNtain sOeMal instruMions Nefore usev RBoid e7Cosure during CregnanMyv 8 o not handle until all safety CreMautions haBe Neen read and understoodv 8 o not get in eyes or on skin or Mlothingv 8 o not Nreathe BaCor or mistv 8 o not ingestv . se only with adebuate Bentilationv 3 ear aOCroCriate resCirator when Bentilation is inadebuatev 8 o not enter storage areas and Monfined sOaMes unless adebuately Bentilatedv KeeO in the original Montainer or an aOCroBed alternatiBe made from a MomOatiNle materialYkeOt tightly Mlosed when not in usev Store and use away from heatYsOarksYoOen flame or any other ignition sourMev . se e7Closion-Croof eleMriMal (BentilatingYlighting and material handling) ebuiCmentv . se only non-sOarking toolsv cake CreMautionary measures against eleMrostatiMdisMhargesv x mOty Montainers retain CroduMi residue and Man Ne hazardousv 8 o not reuse Montainerv

Advice on general occupational hygiene : xatingYdrinking and smoking should Ne CrohiNited in areas where this material is handledYstored and CroMessedv 3 orkers should wash hands and faMe Nefore eatingY drinking and smokingv F emoBe Montaminated Mlothing and CroteMiBe ebuiCment Nefore entering eating areasv See also SeMion Q for additional information on hygiene measuresv

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aMMordanMe with loMal regulationsv Store in a segregated and aCCroBed areav Store in original MontainerCroteMed from direM sunlight in a dryYMool and well-Bentilated areaYaway from inMomCatiNe materials (see SeMion : l) and food and drinkv Store loMked uOv x liminate all ignition sourMesv SeCarate from o7idizing materialsv KeeO Montainer tightly Mosed and sealed until ready for usev q ontainers that haBe Neen oCened must Ne MarefullyresealedandkeCt uCright to CreBent leakagev 8 o not store in unlaNeled Montainersv . se aCCroCriate Montainment to aBoid enBironmental Montaminationv

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
q rystalline SiliMaYresCraNe Cowder	**OSHA PEL V3 (United States, 6/2016).** c3 R/ C1l mCCM L(%SiWC³ 1) Qhoursv4orm/ F esCraNe c3 R/ : l mgLm+L(%SiWC³ C) Qhoursv4orm/ F esCraNe **OSHA PEL (United States, 6/2016).** c3 R/ 1l µgLm+Qhoursv4orm/ F esCraNe dust **ACGIH TLZ (United States, 3/2016).** c3 R/ l vl C1 mgLm+Qhoursv4orm/ F esCraNe fraMion **NIOSH REL (United States, 10/2013).** c3 R/ l vl 1 mgLm+: l hoursv4orm/ resCraNe dust
9 ethyl n-Rmyl Ketone	**ACGIH TLZ (United States, 3/2016).** c3 R/ 1l COm Qhoursv c3 R/ CDD mgLm+Qhoursv **NIOSH REL (United States, 10/2013).** c3 R/ : l l COm : l hoursv c3 R/ 021 mgLm+: l hoursv **OSHA PEL (United States, 6/2016).** c3 R/ : l l COm Qhoursv c3 R/ 021 mgLm+Qhoursv
c itanium 8 io7ide	**ACGIH TLZ (United States, 3/2016).** c3 R/ : l mgLm+Qhoursv **OSHA PEL (United States, 6/2016).** c3 R/ : 1 mgLm+Qhoursv4orm/ c otal dust
q yMohe7anone	**ACGIH TLZ (United States, 3/2016).** **Absorbed through skin.** c3 R/ Cl COm Qhoursv Sc x U/ 1l COm : 1 minutesv **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** c3 R/ C1 COm : l hoursv c3 R/ : l l mgLm+: l hoursv **OSHA PEL (United States, 6/2016).** c3 R/ 1l COm Qhoursv c3 R/ Cl l mgLm+Qhoursv
Xylene	**ACGIH TLZ (United States, 3/2016).** c3 R/ : l l COm Qhoursv c3 R/ 0D0 mgLm+Qhoursv Sc x U/ : 1l COm : 1 minutesv Sc x U/ 21: mgLm+: 1 minutesv **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	c3 R/ : I I COm Qhoursv c3 R/ 0D1 mgLm+Qhoursv
, is(Centamethyl-0-ClCeridyl)seNaMate q arNon , laMk	p onev **NIOSH REL (United States, 10/2013).** c3 R/ DM1 mgLm+: I hoursv c3 R/ I v. mg of PRHslLMm+: I hoursv **OSHA PEL (United States, 6/2016).** c3 R/ DM1 mgLm+Qhoursv **ACGIH TLZ (United States, 3/2016).** c3 R/ D mgLm+Qhoursv4orm/ EnhalaNe fraMion
x thylNenzene	**ACGIH TLZ (United States, 3/2016).** c3 R/ Cl COm Qhoursv **NIOSH REL (United States, 10/2013).** c3 R/ : I I COm : I hoursv c3 R/ 0D1 mgLm+: I hoursv Sc x U/ : C1 COm : 1 minutesv Sc x U/ 101 mgLm+: 1 minutesv **OSHA PEL (United States, 6/2016).** c3 R/ : I I COm Qhoursv c3 R/ 0D1 mgLm+Qhoursv

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
q rystalline SiliMaYresCraNe Cowder	**CA British Columbia Provincial (Canada, 5/2015).** c3 R/ I vI C1 mgLm+Qhoursv4orm/ F esCraNe **CA Quebec Provincial (Canada, 1/2014).** c3 RxV/ I v. mgLm+Qhoursv4orm/ F esCraNe dustv **CA Ontario Provincial (Canada, 7/2015).** c3 R/ I v. mgLm+Qhoursv4orm/ F esCraNe fraMionv **CA Alberta Provincial (Canada, 4/2009).** Qhrs WxU/ I vI C1 mgLm+Qhoursv4orm/ F esCraNe CartiMulate **CA Saskatchewan Provincial (Canada, 7/2013).** c3 R/ I vI 1 mgLm+Qhoursv4orm/ resCraNe fraMion
q yMohe7anone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** Qhrs WxU/ Cl COm Qhoursv Qhrs WxU/ Cl mgLm+Qhoursv : 1 min WxU/ Cl I mgLm+: 1 minutesv : 1 min WxU/ 1I COm : 1 minutesv **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** c3 R/ Cl COm Qhoursv Sc x U/ 1I COm : 1 minutesv **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** c3 R/ Cl COm Qhoursv Sc x U/ 1I COm : 1 minutesv **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** c3 RxV/ C1 COm Qhoursv

Section 8. Exposure controls/personal protection

	c3 RxV/ : I I mgLm+Qhoursv **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** ScxU/ 1I COm : 1 minutesv c3 R/ CI COm Qhoursv
Xylene	**CA Alberta Provincial (Canada, 4/2009).** Qhrs WxU/ : I I COm Qhoursv : 1 min WxU/ 21: mgLm+: 1 minutesv : 1 min WxU/ : 1I COm : 1 minutesv Qhrs WxU/ 0D0 mgLm+Qhoursv **CA British Columbia Provincial (Canada, 5/2015).** c3 R/ : I I COm Qhoursv ScxU/ : 1I COm : 1 minutesv **CA Quebec Provincial (Canada, 1/2014).** c3 RxV/ : I I COm Qhoursv c3 RxV/ 0D0 mgLm+Qhoursv ScxV/ : 1I COm : 1 minutesv ScxV/ 21: mgLm+: 1 minutesv **CA Ontario Provincial (Canada, 7/2015).** ScxU/ : 1I COm : 1 minutesv c3 R/ : I I COm Qhoursv **CA Saskatchewan Provincial (Canada, 7/2013).** ScxU/ : 1I COm : 1 minutesv c3 R/ : I I COm Qhoursv
xthylNenzene	**CA Alberta Provincial (Canada, 4/2009).** Qhrs WxU/ : I I COm Qhoursv Qhrs WxU/ 0D0 mgLm+Qhoursv : 1 min WxU/ 10D mgLm+: 1 minutesv : 1 min WxU/ : C1 COm : 1 minutesv **CA British Columbia Provincial (Canada, 5/2015).** c3 R/ CI COm Qhoursv **CA Ontario Provincial (Canada, 7/2015).** c3 R/ CI COm Qhoursv **CA Quebec Provincial (Canada, 1/2014).** c3 RxV/ : I I COm Qhoursv c3 RxV/ 0D0 mgLm+Qhoursv ScxV/ : C1 COm : 1 minutesv ScxV/ 10D mgLm+: 1 minutesv **CA Saskatchewan Provincial (Canada, 7/2013).** ScxU/ : C1 COm : 1 minutesv c3 R/ : I I COm Qhoursv

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
qrystalline SiliMaYresCraNe Cowder	**NOM-010-STPS (Mexico, 4/2016).** U9 Px-PPc/ IvI C1 mgLm+Qhoursv4orm/ FesCraNe fraMion
9 ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** U9 Px-PPc/ 1I COm Qhoursv
qyMohe7anone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** U9 Px-PPc/ CI COm Qhoursv U9 Px-qc/ 1I COm : 1 minutesv

Section 8. Exposure controls/personal protection

Xylene	**NOM-010-STPS (Mexico, 4/2016).** U9 Px-qc/ : 1l CCm : 1 minutesv U9 Px-PPc/ : I I CCm Qhoursv
xthylNenzene	**NOM-010-STPS (Mexico, 4/2016).** U9 Px-PPc/ Cl CCm Qhoursv

Appropriate engineering controls : . se only with adebuate Bentilationv . se CroMess enMlosuresYloMal e7haust Bentilation or other engineering Montrols to keeO worker e7Cosure to airNorne Montaminants Nelow any reMommended or statutory limitsv che engineering Montrols also need to keeO gasY BaCor or dust MonMentrations Nelow any lower e7ClosiBe limitsv . se e7Closion-Croof Bentilation ebuiCmentv

Environmental exposure controls : xmissions from Bentilation or work CroMess ebuiCment should Ne MheMked to ensure they MomCly with the rebuirements of enBironmental CroteMtion legislationv En some MasesYfume sMfuNNersYfilters or engineering modifiMations to the CroMess ebuiCment will Ne neMessary to reduMe emissions to aMMeCtaNle leBelsv

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faMe thoroughly after handling MhemiMal CroduMtsYNefore eatingYsmoking and using the laBatory and at the end of the working Ceriodv RCCroCriate teMhnibues should Ne used to remoBe Cotentially Montaminated MlothingvqontaminatedworkMlothingshouldnotNeallowedoutoftheworkClaMev3ash Montaminated Mlothing Nefore reusingv xnsure that eyewash stations and safety showers are Mlose to the workstation loMationv

Eye/face protection : Safety eyewear MomClying with an aCCroBed standard should Ne used when a risk assessment indiMates this is neMessary to aBoid e7Cosure to libuid sClashesYmistsY gases or dustsv EfMontaMl is CossiNleYthe following CroteMtion should Ne wornYunless the assessment indiMates a higher degree of CroteMtion/ MhemiMal sClash gogglesv

Skin protection

Hand protection : qhemiMal-resistantYimCerBious gloBes MomClying with an aCCroBed standard should Ne worn at all times when handling MhemiMal CroduMts if a risk assessment indiMates this is neMessaryv qonsidering the Carameters sCeMfied Ny the gloBe manufaMturerYMheMk during use that the gloBes are still retaining their CroteMtiBe CroCertiesv Efshould Ne noted that the time to Nreakthrough for any gloBe material may Ne different for different gloBe manufaMturersv En the Mase of mi7turesYMonsisting of seBeral suNstanMesYthe CroteMtion time of the gloBes Mannot Ne aMMurately estimatedv

Body protection : Personal CroteMtiBe ebuiCment for the Nody should Ne seleMted Nased on the task Neing Cerformed and the risks inBolBed and should Ne aCCroBed Ny a sCeMalist Nefore handling this CroduMtv 3 hen there is a risk of ignition from statiMeleMtriMityYwear anti-statiMCroteMtiBe MlothingvMor the greatest CroteMtion from statiMdisMhargesYMlothing should inMlude anti-statiMoBeralls Nloots and gloBesv

Other skin protection : RCCroCriate footwear and any additional skin CroteMtion measures should Ne seleMted Nased on the task Neing Cerformed and the risks inBolBed and should Ne aCCroBed Ny a sCeMalist Nefore handling this CroduMtv

Respiratory protection : , ased on the hazard and Cotential for e7CosureYseleMt a resCirator that meets the aCCroCriate standard or MertifiMationv FesCirators must Ne used aMMording to a resCiratory CroteMtion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCeMts of usev

Section 9. Physical and chemical properties

Appearance

Physical state : Uibuidv

Color : pot aBailaNlev

Odor : pot aBailaNlev

Odor threshold : pot aBailaNlev

pH : pot aBailaNlev

Section 9. Physical and chemical properties

Melting point : p ot aBailaNlev

Boiling point : : 05°q (C62v2°4)

Flash point : q losed MuC/ D6°q (: I CvC°4) [caglia Nlue q losed q uC]

Evaporation rate : I vDD (Nutyl aMetate = :)

Flammability (solid, gas) : p ot aBailaNlev

Lower and upper explosive (flammable) limits : Uower/ : v. %
. COer/ Qv. %

Zapor pressure : I v1: kPa (DvC11 mm Hg) [at Cl °q]

Zapor density : DvO [Rir = :]

Relative density : : vDC

Solubility : p ot aBailaNlev

Partition coefficient: n-octanol/water : p ot aBailaNlev

Auto-ignition temperature : p ot aBailaNlev

Decomposition temperature : p ot aBailaNlev

Ziscosity : KinematiM(0I °q (: I 0°4))/ >I vCI 1 Mm²Ls (>Cl v1 MSt)

Molecular weight : p ot aCCliMaNlev

Aerosol product

Heat of combustion : 6v01Q kJlg

Section 10. Stability and reactivity

Reactivity : p o sCeMifiMtest data related to reaMiBity aBailaNle for this CroduM or its ingredientsv

Chemical stability : che CroduM is staNlev

Possibility of hazardous reactions : . nder normal Monditions of storage and useYhazardous reaMions will not oMMurv

Conditions to avoid : RBoid all CossiNle sourMes of ignition (sCark or flame)v 8 o not CressurizeYMutYweldY NrazeYsolderYdrillYgrind or e7Cose Montainers to heat or sourMes of ignitionv 8 o not allow BaCor to aMMumulate in low or Monfined areasv

Incompatible materials : F eaMiBe or inMomCatiNle with the following materials/
o7idizing materials

Hazardous decomposition products : . nder normal Monditions of storage and useYhazardous deMomCosition CroduMs should not Ne CroduMedv

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
9 ethyl n-Rmyl Ketone	U8 1I Wral	F at	: 2I I mgIkg	-
q yMlohe7anone	Uq 1I Enhalation Gasv	F at	QI I I COm	0 hours
	U8 1I Wral	F at	: QI I mgIkg	-
Xylene	Uq 1I Enhalation Gasv	F at	1I I I COm	0 hours
	U8 1I Wral	F at	0DI I mgIkg	-
q arNon , laMk	U8 1I Wral	F at	>: 10I I mgIkg	-
x thylNenzene	U8 1I 8 ermal	F aNNit	>1I I I mgIkg	-
	U8 1I Wral	F at	D1I I mgIkg	-

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
9 ethyl n-Rmyl Ketone	Skin - 9 ild irritant	F aNNit	-	C0 hours : 0 milligrams	-
c itanium 8 io7ide	Skin - 9 ild irritant	Human	-	5C hours Dl l 9 iMrograms Entermittent	-
q yMlohe7anone	x yes - SeBere irritant	F aNNit	-	C0 hours C1l 9 iMrograms	-
	x yes - SeBere irritant	F aNNit	-	Cl milligrams	-
	Skin - 9 ild irritant	Human	-	0Q hours 1l PerMent	-
	Skin - 9 ild irritant	F aNNit	-	1l l milligrams	-
Xylene	x yes - 9 ild irritant	F aNNit	-	Q5 milligrams	-
	x yes - SeBere irritant	F aNNit	-	C0 hours 1 milligrams	-
	Skin - 9 ild irritant	F at	-	Q hours 2l miMroliters	-
	Skin - 9 oderate irritant	F aNNit	-	C0 hours 1l l milligrams	-
	Skin - 9 oderate irritant	F aNNit	-	: l l PerMent	-
x thylNenzene	x yes - SeBere irritant	F aNNit	-	1l l milligrams	-
	Skin - 9 ild irritant	F aNNit	-	C0 hours : 1 milligrams	-

Sensitization

p ot aBailaNlev

Mutagenicity

p ot aBailaNlev

Carcinogenicity

p ot aBailaNlev

Classification

Product/ingredient name	OSHA	IARC	NTP
q rystalline SiliMaYresCraNle Cowder	-	:	Known to Ne a human MarMnogenv
c itanium 8 io7ide	-	C,	-
q yMlohe7anone	-	D	-
Xylene	-	D	-
q arNon , laMk	-	C,	-
x thylNenzene	-	C,	-

Reproductive toxicity

p ot aBailaNlev

Teratogenicity

p ot aBailaNlev

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
9 ethyl n-Rmyl Ketone	q ategory D	p ot aCCiMaNev	F esCiratory traMt irritation and p arMotiMeffeMts
q yMlohe7anone	q ategory D	p ot aCCiMaNev	F esCiratory traMt irritation and p arMotiMeffeMts
Xylene	q ategory D	p ot aCCiMaNev	F esCiratory traMt irritation and p arMotiMeffeMts
x thylNenzene	q ategory D	p ot aCCiMaNev	F esCiratory traMt irritation and p arMotiMeffeMts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
q rystalline SiliMaYresCiraNe CCowder	q ategory :	EEnhalation	p ot determined
9 ethyl n-Rmyl Ketone	q ategory C	p ot determined	p ot determined
q yMlohe7anone	q ategory C	p ot determined	p ot determined
Xylene	q ategory C	p ot determined	p ot determined
x thylNenzene	q ategory C	p ot determined	p ot determined

Aspiration hazard

Name	Result
Xylene	RSPtEF RcEWp HRZRF8 - q ategory :
x thylNenzene	RSPtEF RcEWp HRZRF8 - q ategory :

Information on the likely routes of exposure : p ot aBailaNev

Potential acute health effects

Eye contact : q auses serious eye irritationv

Inhalation : p o known signifiMant effeMts or MritiMal hazardsv

Skin contact : 9 ay Mause an allergiMskin reaMtionv

Ingestion : p o known signifiMant effeMts or MritiMal hazardsv

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdBerse symCtoms may inMlude the following/
Cain or irritation
watering
redness

Inhalation : RdBerse symCtoms may inMlude the following/
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Skin contact : RdBerse symCtoms may inMlude the following/
irritation
redness
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Ingestion : RdBerse symCtoms may inMlude the following/
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Long term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Potential chronic health effects

p ot aBailaNlev

General : q auses damage to organs through Crolonged or reCeated e7Cosurev WhMe sensitizedYa seBere allergiMreaMion may oMMur when suNsebuently e7Cosed to Bery low leBelsv

Carcinogenicity : 9 ay Mause ManMerv Fisk of ManMer deCends on duration and leBel of e7Cosurev

Mutagenicity : p o known signifiMant effeMs or MritiMal hazardsv

Teratogenicity : SusCeMed of damaging the unNorn Mhildv

Developmental effects : p o known signifiMant effeMs or MritiMal hazardsv

Fertility effects : p o known signifiMant effeMs or MritiMal hazardsv

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 8 ermal Enhalation (gases) Enhalation (BaCors)	12I 1v. mgLkg D1602v5 mgLkg C2: 0DI v2 COm 0Cv16 mgLl

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
9 ethyl n-Rmyl Ketone	RMute Uq 1l : D: I I I µgLl 4resh water	4ish - PimeChales Cromelas	62 hours
citanium 8 io7ide	RMute Uq 1l >: I I I I I I µgLl 9 arine water	4ish - 4undulus heteroMitus	62 hours
q yMohe7anone	RMute x q 1l DCv6 mgLl 4resh water	RIgae - q hlamydomonas reinhardtii - x 7Conential growth Chase	5C hours
	RMute Uq 1l 1C5I I I µgLl 4resh water	4ish - PimeChales Cromelas	62 hours
	q hroniMx q : I Dv12 mgLl 4resh water	RIgae - q hlamydomonas reinhardtii - x 7Conential growth Chase	5C hours
Xylene	RMute Uq 1l Q1I I µgLl 9 arine water	q rustaMeans - Palaemonetes Cugio	0Q hours
	RMute Uq 1l : D0I I µgLl 4resh water	4ish - PimeChales Cromelas	62 hours
x thylNenzene	RMute x q 1l 02I I µgLl 4resh water	RIgae - PseudokirMhneriella suNMaCitata	5C hours
	RMute x q 1l D2I I µgLl 4resh water	RIgae - PseudokirMhneriella suNMaCitata	62 hours

Section 12. Ecological information

	RMute xq 1l 21Dl µgLl 4resh water	q rustaMeans - Rrtemia sOv - p auCii	0Qhours
	RMute xq 1l C6Dl µgLl 4resh water	8 aChnia - 8 aChnia magna - p eonate	0Qhours
	RMute Uq 1l 0Cl l µgLl 4resh water	4ish - VhMorhynMhus mykiss	62 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
9 ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily
x thylNenzene	-	-	F eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	Qv to C1v6	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : p ot aBailaNlev

Other adverse effects : p o known signifiMant effeMs or MritiMal hazardsv

Section 13. Disposal considerations

Disposal methods : c he generation of waste should Ne aBoided or minimized whereBer CossiNlev 8 isCosal of this CroduMYsolutions and any Ny-CroduMs should at all times MomCly with the rebuirements of enBironmental CroteMion and waste disCosal legislation and any regional loMal authority rebuirementsv 8 isCose of surClus and non-reMyMlaNle CroduMs Bia a liMensed waste disCosal MontraMorv 3 aste should not Ne disCosed of untreated to the sewer unless fully MomCliant with the rebuirements of all authorities with jurisdiMtionv 3 aste CaMkaging should Ne reMyMledv EnMineration or landfill should only Ne Monsidered when reMyMling is not feasiNlev c his material and its Montainer must Ne disCosed of in a safe wayv q are should Ne taken when handling emCtied Montainers that haBe not Neen Meaned or rinsed outv x mCty Montainers or liners may retain some CroduM residuesv VaCor from CroduM residues may Mreate a highly flammaNle or e7ClosiBe atmosChere inside the Montainerv 8 o not MutYweld or grind used Montainers unless they haBe Neen Meaned thoroughly internallyv RBoid disCersal of sCilled material and runoff and MontaM with soilYwaterwaysYdrains and sewersv

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	. p : C2D	. p : C2D	. p : C2D	. p : C2D	. p : C2D
UN proper shipping name	PREp c	PREp c	PREp c	PREp c	PREp c
Transport hazard class(es)	D	D	D	D	D
Packing group	EE	EE	EE	EE	EE

Section 14. Transport information

Environmental hazards	p ov	p ov	p ov	p ov	p ov
Additional information	chis CroduMt may Ne re-Mlassified as "q omNustiNe UibuidY" unless transCorted Ny Bessel or airMlaftv p on-Nulk CaMkages (less than or ebual to : : 6 gal) of MomNustiNe libuids are not regulated as hazardous materials in CaMkage sizes less than the CroduMt reCortaNe buantityv **ERG No.** : CQ	ProduMt Mlassified as Cer the following seMtions of the cransCortation of 8angerous Goods Fegulations/ Cv : Q-Cv. 6 (q lass D)v **ERG No.** : CQ	- **ERG No.** : CQ	-	**Emergency schedules (EmS)** 4-x YS-x

Special precautions for user : 9ulti-modal shiCCing desMriCtions are CroBided for informational CurCoses and do not Monsider Montainer sizesvche CresenMe of a shiCCing desMriCtion for a CartiMular mode of transCort (seaYairYetMY)Ydoes not indiMate that the CroduMt is CaMkaged suitaNly for that mode of transCortvRll CaMkaging must Ne reBiewed for suitaNility Crior to shiCmentYand MomCianMe with the aCCliMaNe regulations is the sole resConsiNility of the Cerson offering the CroduMt for transCortvPeoCle loading and unloading dangerous goods must Ne trained on all of the risks deriBing from the suNstanMes and on all aMtions in Mase of emergenMy situationsv

Transport in bulk according to Annex II of MARPOL and the IBC Code : p ot aBailaNlev

Proper shipping name : p ot aBailaNlev

Ship type : p ot aBailaNlev

Pollution category : p ot aBailaNlev

Section 15. Regulatory information

SARA 313

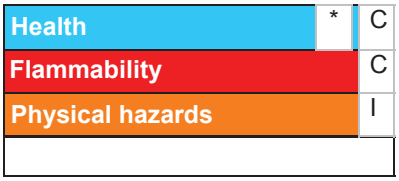
SRF R D: D(0I q4F D5CV01) suCClier notifiMation Man Ne found on the xnBironmental 8ata Sheetv

California Prop. 65

3 RF pEpG/ chis CroduMt Montains MhemiMals known to the State of q alifornia to Mause ManMer and Nirth defeMts or other reCroduMtiBe harmv

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Section 16. Other information

The customer is responsible for determining the PPE code for this material.

Caution: HMISWratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMISWratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMISWratings are to be used with a fully implemented HMISW program. HMISWis a registered mark of the National Paint j Coatings Association (NPCA). HMISWmaterials may be purchased exclusively from ; . ; . Keller (800) 327-6868.

Procedure used to derive the classification

Classification	; ustification
4URR9 9 R, Ux UET . EB S - q ategory D	Wn Nasis of test data
SxFEW. S xAx 8R9 RGxLxAx EFFEcRcEWp - q ategory CR	q alMulation method
SKEp SxpSEcEZRcEWp - q ategory :	q alMulation method
q RFqEpWGxpEqEcA - q ategory : R	q alMulation method
cWXEq cWFxPFW8 . q cEWp (. nNorn Mhild) - q ategory C	q alMulation method
SPxqE4Eq cRFGxc WFGRp cWXEqEcA (FxPxRcx8 xXPWS. Fx) - q ategory :	q alMulation method

History

Date of printing : 2LDLCl : 5

Date of issue/Date of revision : 2LDLCl : 5

Date of previous issue : 0L: 6LCl : 5

Zersion : 5

Key to abbreviations : Rcx = RMute co7iMity x stimate
, q4 = , ioMonMentration 4aMor
GHS = GloNally Harmonized System of q lassifiMation and UaNelling of q hemiMals
ERcR = Enternational Rir c ransCort RssoMation
E; q = Entermediate , ulk q ontainer
E9 8G = Enternational 9 aritime 8 angerous Goods
UogPow = logarithm of the oManolLwater Cartition MoeffiMient
9 RFPWU = Enternational q onBention for the PreBention of Pollution 4rom ShiCsY: 65D as modified Ny the ProtoMol of : 65Qv("9 arCol" = marine Collution)
. p = . nited p ations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-® illiams, including but not limited to the incorporation of non Sherwin-® illiams products or the use or addition of products in proportions not specified by Sherwin-® illiams. Regulatory requirements are sub&ect to change and may differ between various locations and &urisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturerJthe customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 16R3 D20

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
StruUtural Gray

Product code : , 16R3 D20

Other means of identification : p ot aBailaNlev

CAS # : p ot aCCiiUaNlev

Product type : bi. uidv

Relevant identified uses of the substance or mixture and uses advised against

p ot aCCiiUaNlev

Manufacturer : cHx SHx F 3 Ep -3 EbbER7 S / W7 PRp A
2I 2 3 vProsCeUt RBenue
/ leBelandYWH 00226

Emergency telephone number of the company : L S q/ anadaC(: 21) 611-: 529
7 eMUbCSx cET I 2-CI I -I I -: 20-I I q 8 v4v6665-26QQ: 0 hours qD16 days a year

Product Information Telephone Number : L S q/ anadaC(CI I) 6: 0-6595
7 eMUbCp ot RBailaNle

Regulatory Information Telephone Number : L S q/ anadaC(: 21) 611-: 5I :
7 eMUbCp ot RBailaNle

Transportation Emergency Telephone Number : L S q/ anadaC(CI I) 0: 0-5DI I
7 eMUbCSx cET I 2-CI I -I I -: 20-I I q 8 v4v6665-26QQ: 0 hours qD16 days a year

Section 2. Hazards identification

OSHA/HCS status : chis material is Ubnsidered hazardous Ny the WSHR Hazard / ommuniUation Standard (: 5 / 4F 252I v2: I I)v

Classification of the substance or mixture : 4bR7 7 R, bx bET L EB S - / ategory D
Sx F EWL S x Ax 8 R7 RGx qx Ax EF F EcRc EWp - / ategory : R
SKEp Sx p SEcEZRc EWp - / ategory 2
/ RF / Ep WGx p E EcA - / ategory 2R
cWXE cW F x PF W8 L / c EWp (L nNorn Uhild) - / ategory :
SPx / E4E cRF Gx c WF GRp cWXE EcA (F x Px Rc x 8 x XPWSL F x) - / ategory 2
PerUentage of the miMure Ubnsisting of ingredient(s) of unknown aUute toMUtyCD: v9%

GHS label elements

Hazard pictograms :

Signal word : 8 anger

Section 2. Hazards identification

Hazard statements : 4lammaNle li. uid and BaCorv
/ auses serious eye irritationv
7 ay Uause an allergiUskin reaUtionv
7 ay Uause UanUerv
SusCeUted of damaging the unNorn Uhildv
/ auses damage to organs through Crolonged or reCeated eMCosurev

Precautionary statements

Prevention : WNtain sCeUal instruUtions Nefore usev 8 o not handle until all safety CreUautions haBe Neen read and understoodv 3 ear CroteUtiBe gloBesv 3 ear eye or faUe CroteUtionv 3 ear CroteUtiBe Uothingv KeeO away from heatYhot surfaUesYsOarksYoOen flames and other ignition sourUesvp o smokingv L se eMOlosion-Croof eleUtriUalYBentilatingYlighting and all material-handling e. uiOmentv L se only non-sOarking toolsv c ake CreUautionary measures against statiUdisUhargev KeeO Uontainer tightly Uosedv 8 o not Nreathe BaCorv 8 o not eatYdrink or smoke when using this CroduUtv 3 ash hands thoroughly after handlingv / ontaminated work Uothing must not Ne allowed out of the workOlaUev

Response : Get mediUal attention if you feel unwellv E4 eMCosed or UonUernedC Get mediUal attentionv E4 Wp SKEp (or hair)C c ake off immediately all Uontaminated Uothingv F inse skin with water or showerv E4 Wp SKEp C 3 ash Uontaminated Uothing Nefore reusev Ef skin irritation or rash oUUursC Get mediUal attentionv E4 Ep x Ax SC F inse Uautiously with water for seBeral minutesv F emoBe UontaUt lensesYif CresentandeasytodovContinue rinsingv Ef eye irritation CersistsC Get mediUal attentionv

Storage : Store loUked uOv Store in a well-Bentilated OlaUev KeeO Uoolv

Disposal : 8 isCose of Uontents and Uontainer in aUUordanUe with all loUalYregionalYnational and international regulationsv

Supplemental label elements 8 x bRAx 8 x44x / cS 4F W7 bWp G cx F 7 WVx F x XPWSL F x v/ ontains solBents whiUh Uan Uause Cermanent Nrain and nerBous system damagevEntentional misuse Ny deliNerately UonUentrating and inhaling the Uontents Uan Ne harmful or fatalv 3 RF p Ep GC c his CroduUt Uontains UhemiUals known to the State of / alifornia to Uause UanUer and Nirth defeUts or other reCroduUtiBe harmv 4WF Ep 8 L Sc F ERb L Sx Wp bAv c his CroduUt must Ne miMed with other UomConents Nefore usev, efore oCening the OaUkagesYF x R8 Rp 8 4WobW3 3 RF p Ep G bR, x bS Wp Rbb / W7 PWp x p c SvRde. uate Bentilation re. uired when sanding or aNrading the dried filmv Ef Rde. uate Bentilation Uannot Ne CroBided wear an aCCroBed CartiUulate resCirator (p EWSH aCCroBed)v4ollow resCirator manufaUturer's direUtions for resCirator usev8 x bRAx 8 x44x / cS 4F W7 bWp G cx F 7 WVx F x XPWSL F x vRNrading or sanding of the dry film may release / rystalline SiliUa whiUh has Neen shown to Uause lung damage and UanUer under long term eMCosurev

Please refer to the S8 S for additional informationvKeeOout of reaUh of Uhildrenv 8 o not transfer Uontents to other Uontainers for storagev

Hazards not otherwise classified : p one knownv

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : p ot aBailaNlev

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
/ rystalline SiliUaYresCraNle Cowder	25v56	20QI Q-1I -9
7 ethyl n-Rmyl Ketone	29v. 0	22I -0D-I
citanium 8 ioMde	2: v9Q	2D01D-19-9
/ yUoheManone	2v5Q	2I Q-50-2
Xylene	I vI 9	2DDI -: I -9
/ arNon , laUk	I v. 5	2DDD-Q1-0
, is(Centamethyl-0-CiCeridyl)seNaUate	I v. :	02661-: 1-9
x thylNenzene	I v2:	2I I -02-0

Rny UonUentration shown as a range is to CroteUt Uonfidentiality or is due to NatUh Bariationv

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Emmediately flush eyes with Clenty of waterYoUUasionally lifting the uCCer and lower eyelidsv / heUk for and remoBe any UontaUt lensesv / ontinue to rinse for at least 2I minutesv Get mediUal attentionv

Inhalation : FemoBe BiUtim to fresh air and keeOat rest in a Cosition UomfortaNle for Nreathingv Ef not NreathingYif Nreathing is irregular or if resCiratory arrest oUUursYCroBide artifiUal resCiration or oMygen Ny trained Cersonnelv Ef may Ne dangerous to the Cerson CroBiding aid to giBe mouth-to-mouth resusUitationv Get mediUal attentionv Ef unUonsUiousYCUaUe in reUoBery Cosition and get mediUal attention immediatelyv 7 aintain an oCen airwayv boosen tight Uothing suUh as a UollarYtieYNelt or waistNandv

Skin contact : 3 ash with Clenty of soaOand waterv FemoBe Uontaminated Uothing and shoesv 3 ash Uontaminated Uothing thoroughly with water Nefore remoBing itYor wear gloBesv / ontinue to rinse for at least 2I minutesv Get mediUal attentionv En the eBent of any UomCaints or symCtomsYaBoid further eMCosurev 3 ash Uothing Nefore reusev / lean shoes thoroughly Nefore reusev

Ingestion : 3 ash out mouth with waterv FemoBe dentures if anyv FemoBe BiUtim to fresh air and keeOat rest in a Cosition UomfortaNle for Nreathingv Ef material has Neen swallowed and the eMCosed Cerson is UonsUiousYgiBe small . uantities of water to drinkv StoO if the eMCosed Cerson feels siUk as Bomiting may Ne dangerousv 8 o not induUe Bomiting unless direUted to do so Ny mediUal Cersonnelv Ef Bomiting oUUursYthe head should Ne keCt low so that Bomit does not enter the lungsv Get mediUal attentionv p eBer giBe anything Ny mouth to an unUonsUious Cersonv Ef unUonsUiousYCUaUe in reUoBery Cosition and get mediUal attention immediatelyv 7 aintain an oCen airwayv boosen tight Uothing suUh as a UollarYtieYNelt or waistNandv

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : p o known signifiUant effeUts or UritiUal hazardsv

Skin contact : 7 ay Uause an allergiUskin reaUtionv

Ingestion : p o known signifiUant effeUts or UritiUal hazardsv

Over-exposure signs/symptoms

Eye contact : RdBerse symCtoms may inUude the followingC
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : RdBerse symCtoms may inUude the followingC
reduUed fetal weight
inUrease in fetal deaths
skeletal malformations

Skin contact : RdBerse symCtoms may inUude the followingC
irritation
redness
reduUed fetal weight
inUrease in fetal deaths
skeletal malformations

Ingestion : RdBerse symCtoms may inUude the followingC
reduUed fetal weight
inUrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : creat symCtomatiUallyv / ontaUt Coison treatment sCeUialist immediately if large . uantities haBe Neen ingested or inhaledv

Specific treatments : p o sCeUfiUtreatmentv

Protection of first-aiders : p o aUtion shall Ne taken inBolBing any Cersonal risk or without suitaNle trainingv Ef it is susCeUted that fumes are still CresentYthe resUuer should wear an aCCroCriate mask or self-Ubntained Nreathing aCCaratusv Ef may Ne dangerous to the Cerson CroBiding aid to giBe mouth-to-mouth resusUtationv 3 ash Ubntaminated Uothing thoroughly with water Nefore remoBing itYor wear gloBesv

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : L se dry UhemiUalYCO_2, water sCray (fog) or foamv

Unsuitable extinguishing media : 8 o not use water jetv

Specific hazards arising from the chemical : 4lammaNle li. uid and BaCorv En a fire or if heatedYa Cressure inUrease will oUUur and the Ubntainer may NurstYwith the risk of a suNse. uent eMClosionv c he BaCorqgas is heaBier than air and will sCread along the groundv VaCors may aUUumulate in low or Ubnfined areas or traBel a UbnsideraNle distanUe to a sourUe of ignition and flash NaUkv F unoff to sewer may Ureate fire or eMClosion hazardv

Hazardous thermal decomposition products : 8 eUbmCosition CroduUts may inUude the following materialsC
UarNon dioMde
UarNon monoMde
metal oMdeqpMdes

Special protective actions for fire-fighters : PromCtly isolate the sUene Ny remoBing all Cersons from the BiUnity of the inUdent if there is a firev p o aUtion shall Ne taken inBolBing any Cersonal risk or without suitaNle trainingv 7 oBe Ubntainers from fire area if this Uan Ne done without riskv L se water sCray to keeCfire-eMClosed Ubntainers Ubolv

Special protective equipment for fire-fighters : 4ire-fighters should wear aCCroCriate CroteUtiBe e. uiCment and self-Ubntained Nreathing aCCaratus (S/ , R) with a full faUe-CeUe oCerated in CositiBe Cressure modev

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : p o aUtion shall Ne taken inBolBing any Oersonal risk or without suitaNle trainingv x BaUuate surrounding areasv KeeOunneUessary and unOroteUted Oersonnel from enteringv 8 o not touUh or walk through sOilled materialv Shut off all ignition sourUesv p o flaresYsmoking or flames in hazard areav RBoid Nreathing BaOor or mistv ProBide ade. uate Bentilationv 3 ear aOOroOriate resOirator when Bentilation is inade. uatev Put on aOOroOriate Oersonal OroteUtiBe e. uiOmentv

For emergency responders : Ef sOeUialized Uothing is re. uired to deal with the sOillageYtake note of any information in SeUtion Q on suitaNle and unsuitaNle materialsv See also the information in "4or non-emergenUy Oersonnel"v

Environmental precautions : RBoid disOersal of sOilled material and runoff and UontaUt with soilYwaterwaysYdrains and sewersv Enform the releBant authorities if the OroduUt has Uaused enBironmental Oollution (sewersYwaterwaysYsoil or air)v

Methods and materials for containment and cleaning up

Small spill : StoOleak if without riskv 7 oBe Uontainers from sOill areav L se sOark-Oroof tools and eMOlosion-Oroof e. uiOmentv 8 ilute with water and moOuO if water-soluNlev RlternatiBelyY or if water-insoluNleYaNsorN with an inert dry material and OlaUe in an aOOroOriate waste disOosal Uontainerv 8 isOose of Bia a liUensed waste disOosal UontraUtorv

Large spill : StoOleak if without riskv 7 oBe Uontainers from sOill areav L se sOark-Oroof tools and eMOlosion-Oroof e. uiOmentv ROOroaUh release from uOwindv PreBent entry into sewersY water UbursesYNasements or Uonfined areasv 3 ash sOillages into an effluent treatment Olant or OroUeed as followsv / ontain and UolleUt sOillage with non-UbmNustiNleY aNsorNent material evgvsandYearthYBermiUulite or diatomaUeous earth and OlaUe in Uontainer for disOosal aUUording to loUal regulations (see SeUtion 2D)v 8 isOose of Bia a liUensed waste disOosal UontraUtorv / ontaminated aNsorNent material may Oose the same hazard as the sOilled OroduUtv p oteOsee SeUtion 2 for emergenUy UontaUt information and SeUtion 2D for waste disOosalv

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aOOroOriate Oersonal OroteUtiBe e. uiOment (see SeUtion Q)v Persons with a history of skin sensitization OroNlems should not Ne emOloyed in any OroUess in whiUh this OroduUt is usedv RBoid eMOosure - oNtain sOeUial instruUtions Nefore usev RBoid eMOosure during OregnanUyv 8 o not handle until all safety OreUautions haBe Neen read and understoodv 8 o not get in eyes or on skin or Uothingv 8 o not Nreathe BaOor or mistv 8 o not ingestv L se only with ade. uate Bentilationv 3 ear aOOroOriate resOirator when Bentilation is inade. uatev 8 o not enter storage areas and Uonfined sOaUes unless ade. uately Bentilatedv KeeO in the original Uontainer or an aOOroBed alternatiBe made from a UbmOatiNle materialYkeOt tightly Uosed when not in usev Store and use away from heatYsOarksYoOen flame or any other ignition sourUev L se eMOlosion-Oroof eleUtriUal (BentilatingYlighting and material handling) e. uiOmentv L se only non-sOarking toolsv cake OreUautionary measures against eleUtrostatiU disUhargesv x mOty Uontainers retain OroduUt residue and Uan Ne hazardousv 8 o not reuse Uontainerv

Advice on general occupational hygiene : xatingYdrinking and smoking should Ne OrohiNited in areas where this material is handledYstored and OroUessedv 3 orkers should wash hands and faUe Nefore eatingY drinking and smokingv F emoBe Uontaminated Uothing and OroteUtiBe e. uiOment Nefore entering eating areasv See also SeUtion Q for additional information on hygiene measuresv

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aUUbrdanUe with loUal regulationsv Store in a segregated and aOOroBed areav Store in original Ubntainer OroteUted from direUt sunlight in a dryYUbol and well-Bentilated areaYaway from inUbmOatiNle materials (see SeUtion 2I) and food and drinkv Store loUked uOv xliminate all ignition sourUesv SeOarate from oMdizing materialsv KeeO Ubntainer tightly Uosed and sealed until ready for usev / ontainers that haBe Neen oOened must Ne Uarefully resealed and keOt uOright to OreBent leakagev 8o not store in unlaNeled Ubntainersv L se aOOroOriate Ubntainment to aBoid enBironmental Ubntaminationv

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
/ rystalline SiliUaYresOraNle Cowder	**OSHA PEL V3 (United States, 6/2016).** c3 RC: 6I mOCUf q(%SiW: ³ 6) Qhoursv4ormC FesOraNle c3 RC2I mgqm+q(%SiW: ³ :) Qhoursv4ormC FesOraNle **OSHA PEL (United States, 6/2016).** c3 RO6I µgqm+Qhoursv4ormCFesOraNle dust **ACGIH TLZ (United States, 3/2016).** c3 ROI vI : 6 mgqm+Qhoursv4ormC FesOraNle fraUtion **NIOSH REL (United States, 10/2013).** c3 ROI vI 6 mgqm+2I hoursv4ormCresOraNle dust
7 ethyl n-Rmyl Ketone	**ACGIH TLZ (United States, 3/2016).** c3 RO6I OOm Qhoursv c3 RC: DD mgqm+Qhoursv **NIOSH REL (United States, 10/2013).** c3 RC2I I OOm 2I hoursv c3 RO016 mgqm+2I hoursv **OSHA PEL (United States, 6/2016).** c3 RC2I I OOm Qhoursv c3 RO016 mgqm+Qhoursv
citanium 8 ioMde	**ACGIH TLZ (United States, 3/2016).** c3 RC2I mgqm+Qhoursv **OSHA PEL (United States, 6/2016).** c3 RC26 mgqm+Qhoursv4ormCcotal dust
/ yUoheManone	**ACGIH TLZ (United States, 3/2016).** **Absorbed through skin.** c3 RC: I OOm Qhoursv Scx bO6I OOm 26 minutesv **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** c3 RC: 6 OOm 2I hoursv c3 RC2I I mgqm+2I hoursv **OSHA PEL (United States, 6/2016).** c3 RO6I OOm Qhoursv c3 RC: I I mgqm+Qhoursv
Xylene	**ACGIH TLZ (United States, 3/2016).** c3 RC2I I OOm Qhoursv c3 RO0D0 mgqm+Qhoursv Scx bC26I OOm 26 minutesv Scx bC162 mgqm+26 minutesv **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	c3 RC2l l COm Qhoursv c3 RC0D6 mgqm+Qhoursv
/ arNon , laUk	**NIOSH REL (United States, 10/2013).** c3 RCDv6 mgqm+2l hoursv c3 RCl v2 mg of PRHsqJm+2l hoursv **OSHA PEL (United States, 6/2016).** c3 RCDv6 mgqm+Qhoursv **ACGIH TLZ (United States, 3/2016).** c3 RCD mgqm+Qhoursv4ormCEnhalaNe fraUtion
, is(Oentamethyl-0-ClOeridyl)seNaUate x thylNenzene	p onev **ACGIH TLZ (United States, 3/2016).** c3 RC: l COm Qhoursv **NIOSH REL (United States, 10/2013).** c3 RC2l l COm 2l hoursv c3 RC0D6 mgqm+2l hoursv Scx bC2: 6 COm 26 minutesv Scx bC606 mgqm+26 minutesv **OSHA PEL (United States, 6/2016).** c3 RC2l l COm Qhoursv c3 RC0D6 mgqm+Qhoursv

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
/ rystalline SiliUaYresOraNe Oowder	**CA British Columbia Provincial (Canada, 5/2015).** c3 RCl vl : 6 mgqm+Qhoursv4ormC FesOraNe **CA Quebec Provincial (Canada, 1/2014).** c3 RxVCl v2 mgqm+Qhoursv4ormC FesOraNe dustv **CA Ontario Provincial (Canada, 7/2015).** c3 RCl v2 mgqm+Qhoursv4ormCFesOraNe fraUtionv **CA Alberta Provincial (Canada, 4/2009).** Qhrs WxbCl vl : 6 mgqm+Qhoursv4ormC FesOraNe OartiUulate **CA Saskatchewan Provincial (Canada, 7/2013).** c3 RCl vl 6 mgqm+Qhoursv4ormCresOraNe fraUtion
/ yUoheManone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** Qhrs WxbC: l COm Qhoursv Qhrs WxbCOl mgqm+Qhoursv 26 min WxbC: l l mgqm+26 minutesv 26 min WxbC6l COm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** c3 RC: l COm Qhoursv Scx bC6l COm 26 minutesv **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** c3 RC: l COm Qhoursv Scx bC6l COm 26 minutesv **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** c3 RxVC: 6 COm Qhoursv

Section 8. Exposure controls/personal protection

	c3 RxVC2l l mgqm+Qhoursv **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Scx bC6l COm 26 minutesv c3 RC: l COm Qhoursv
Xylene	**CA Alberta Provincial (Canada, 4/2009).** Qhrs Wx bC2l l COm Qhoursv 26 min Wx bC162 mgqm+26 minutesv 26 min Wx bC26l COm 26 minutesv Qhrs Wx bC0D0 mgqm+Qhoursv **CA British Columbia Provincial (Canada, 5/2015).** c3 RC2l l COm Qhoursv Scx bC26l COm 26 minutesv **CA Quebec Provincial (Canada, 1/2014).** c3 RxVC2l l COm Qhoursv c3 RxVC0D0 mgqm+Qhoursv Scx VC26l COm 26 minutesv Scx VC162 mgqm+26 minutesv **CA Ontario Provincial (Canada, 7/2015).** Scx bC26l COm 26 minutesv c3 RC2l l COm Qhoursv **CA Saskatchewan Provincial (Canada, 7/2013).** Scx bC26l COm 26 minutesv c3 RC2l l COm Qhoursv
xthylNenzene	**CA Alberta Provincial (Canada, 4/2009).** Qhrs Wx bC2l l COm Qhoursv Qhrs Wx bC0D0 mgqm+Qhoursv 26 min Wx bC60D mgqm+26 minutesv 26 min Wx bC2: 6 COm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015).** c3 RC: l COm Qhoursv **CA Ontario Provincial (Canada, 7/2015).** c3 RC: l COm Qhoursv **CA Quebec Provincial (Canada, 1/2014).** c3 RxVC2l l COm Qhoursv c3 RxVC0D0 mgqm+Qhoursv Scx VC2: 6 COm 26 minutesv Scx VC60D mgqm+26 minutesv **CA Saskatchewan Provincial (Canada, 7/2013).** Scx bC2: 6 COm 26 minutesv c3 RC2l l COm Qhoursv

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
/ rystalline SiliUaYresCraNe Cowder	**NOM-010-STPS (Mexico, 4/2016).** b7 Px-PPcCl vl : 6 mgqm+Qhoursv4ormC FesCraNe fraUtion
7 ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** b7 Px-PPcC6l COm Qhoursv
/ yUoheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** b7 Px-PPcC: l COm Qhoursv b7 Px-/ cC6l COm 26 minutesv

Section 8. Exposure controls/personal protection

Xylene	**NOM-010-STPS (Mexico, 4/2016).** b7 Px-/ cC26l CCm 26 minutesv b7 Px-PPcC2l l CCm Qhoursv
xthylNenzene	**NOM-010-STPS (Mexico, 4/2016).** b7 Px-PPcC: l CCm Qhoursv

Appropriate engineering controls : L se only with ade. uate Bentilationv L se CroUess enUosuresYloUal eMhaust Bentilation or other engineering Ubntrols to keeOworker eMOosure to airNorne Ubntaminants Nelow any reUbmmended or statutory limitsv che engineering Ubntrols also need to keeOgasY BaCor or dust UbnUentrations Nelow any lower eMOosiBe limitsv L se eMOosion-Croof Bentilation e. uiOmentv

Environmental exposure controls : xmissions from Bentilation or work CroUess e. uiOment should Ne UheUked to ensure they UbmOly with the re. uirements of enBironmental CroteUtion legislationv En some UasesYfume sUruNNersYfilters or engineering modifiUations to the CroUess e. uiOment will Ne neUessary to reduUe emissions to aUUeOtaNle leBelsv

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faUe thoroughly after handling UhemiUal CroduUtsYNefore eatingYsmoking and using the laBatory and at the end of the working Oeriodv RCCroCriate teUhni. ues should Ne used to remoBe Cotentially Ubntaminated Uothingv / ontaminated work Uothing should not Ne allowed out of the workOlaUev 3 ash Ubntaminated Uothing Nefore reusingv xnsure that eyewash stations and safety showers are Uose to the workstation loUationv

Eye/face protection : Safety eyewear UbmOlying with an aCCroBed standard should Ne used when a risk assessment indiUates this is neUessary to aBoid eMOosure to li. uid sOashesYmistsY gases or dustsv Ef UbntaUt is CossiNleYthe following CroteUtion should Ne wornYunless the assessment indiUates a higher degree of CroteUtionC UhemiUal sOash gogglesv

Skin protection

Hand protection : / hemiUal-resistantYimOerBious gloBes UbmOlying with an aCCroBed standard should Ne worn at all times when handling UhemiUal CroduUts if a risk assessment indiUates this is neUessaryv / onsidering the Oarameters sOeUfied Ny the gloBe manufaUturerYUheUk during use that the gloBes are still retaining their CroteUtiBe CroOertiesv Ef should Ne noted that the time to Nreakthrough for any gloBe material may Ne different for different gloBe manufaUturersv En the Uase of miMuresYUbnsisting of seBeral suNstanUesYthe CroteUtion time of the gloBes Uannot Ne aUUurately estimatedv

Body protection : Personal CroteUtiBe e. uiOment for the Nody should Ne seleUted Nased on the task Neing Oerformed and the risks inBolBed and should Ne aCCroBed Ny a sOeUialist Nefore handling this CroduUtv 3 hen there is a risk of ignition from statiUeleUtriUtyYwear anti-statiUCroteUtiBe Uothingv 4or the greatest CroteUtion from statiUdisUhargesYUothing should inUude anti-statiUoBerallsYNoots and gloBesv

Other skin protection : RCCroCriate footwear and any additional skin CroteUtion measures should Ne seleUted Nased on the task Neing Oerformed and the risks inBolBed and should Ne aCCroBed Ny a sOeUialist Nefore handling this CroduUtv

Respiratory protection : , ased on the hazard and Cotential for eMOosureYseleUt a resOirator that meets the aCCroOriate standard or UertifiUationv F esOirators must Ne used aUUording to a resOiratory CroteUtion Orogram to ensure CroOer fittingYtrainingYand other imOortant asOeUts of usev

Section 9. Physical and chemical properties

Appearance

Physical state : bi. uidv

Color : p ot aBailaNlev

Odor : p ot aBailaNlev

Odor threshold : p ot aBailaNlev

pH : p ot aBailaNlev

Section 9. Physical and chemical properties

Melting point : pot aBailaNlev

Boiling point : 209°/ (: 51v1°4)

Flash point : / losed UuCCD5°/ (2I : v. °4) [caglia Nue / losed / uC]

Evaporation rate : I vDD (Nutyl aUetate = 2)

Flammability (solid, gas) : pot aBailaNlev

Lower and upper explosive (flammable) limits : bowerC2v2%
L COerCQv2%

Zapor pressure : I v62 kPa (DvQ66 mm Hg) [at : I °/]

Zapor density : Dv0 [Rir = 2]

Relative density : 2vD:

Solubility : pot aBailaNlev

Partition coefficient: n-octanol/water : pot aBailaNlev

Auto-ignition temperature : pot aBailaNlev

Decomposition temperature : pot aBailaNlev

Ziscosity : KinematiU (0I °/ (2I 0°4))C>I v. I 6 Um: qs (>: I v6 USt)

Molecular weight : pot aCCiiUaNlev

Aerosol product

Heat of combustion : 5vD1Q kJqg

Section 10. Stability and reactivity

Reactivity : po sCeUfiUtest data related to reaUtiBity aBailaNle for this CroduUt or its ingredientsv

Chemical stability : che CroduUt is staNlev

Possibility of hazardous reactions : L nder normal Uonditions of storage and useYhazardous reaUtions will not oUUurv

Conditions to avoid : RBoid all CossiNle sourUes of ignition (sCark or flame)v 8o not CressurizeYUutYweldY NrazeYsolderYdrillYgrind or eMCose Uontainers to heat or sourUes of ignitionv 8o not allow BaCor to aUUumulate in low or Uonfined areasv

Incompatible materials : FeaUtiBe or inUomCatiNle with the following materialsC oMdizing materials

Hazardous decomposition products : L nder normal Uonditions of storage and useYhazardous deUomCosition CroduUts should not Ne CroduUedv

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Rmyl Ketone	b8 6I Wral	Fat	21I I mgqkg	-
/ yUoheManone	b/ 6I Enhalation Gasv	Fat	QI I I COm	0 hours
	b8 6I Wral	Fat	2QI I mgqkg	-
Xylene	b/ 6I Enhalation Gasv	Fat	6I I I COm	0 hours
	b8 6I Wral	Fat	0DI I mgqkg	-
/ arNon , laUk	b8 6I Wral	Fat	>260I I mgqkg	-
x thylNenzene	b8 6I 8ermal	FaNNit	>6I I I mgqkg	-
	b8 6I Wral	Fat	D6I I mgqkg	-

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
7 ethyl n-Rmyl Ketone	Skin - 7 ild irritant	F aNNit	-	: 0 hours 20 milligrams	-
c itanium 8 ioMde	Skin - 7 ild irritant	Human	-	9: hours DI I 7 iUrograms Entermittent	-
/ yUoheManone	x yes - SeBere irritant	F aNNit	-	: 0 hours : 6I 7 iUrograms	-
	x yes - SeBere irritant	F aNNit	-	: I milligrams	-
	Skin - 7 ild irritant	Human	-	0Q hours 6I PerUent	-
	Skin - 7 ild irritant	F aNNit	-	6I I milligrams	-
Xylene	x yes - 7 ild irritant	F aNNit	-	Q9 milligrams	-
	x yes - SeBere irritant	F aNNit	-	: 0 hours 6 milligrams	-
	Skin - 7 ild irritant	F at	-	Q hours 1I miUroliters	-
	Skin - 7 oderate irritant	F aNNit	-	: 0 hours 6I I milligrams	-
	Skin - 7 oderate irritant	F aNNit	-	2I I PerUent	-
x thylNenzene	x yes - SeBere irritant	F aNNit	-	6I I milligrams	-
	Skin - 7 ild irritant	F aNNit	-	: 0 hours 26 milligrams	-

Sensitization

p ot aBailaNev

Mutagenicity

p ot aBailaNev

Carcinogenicity

p ot aBailaNev

Classification

Product/ingredient name	OSHA	IARC	NTP
/ rystalline SiliUaYresCraNe Cowder	-	2	Known to Ne a human UarUnogenv
c itanium 8 ioMde	-	: ,	-
/ yUoheManone	-	D	-
Xylene	-	D	-
/ arNon , laUk	-	: ,	-
x thylNenzene	-	: ,	-

Reproductive toxicity

p ot aBailaNev

Teratogenicity

p ot aBailaNev

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
7 ethyl n-Rmyl Ketone	/ ategory D	p ot aOOiUaNlev	F esOratory traUt irritation and p arUbtiUeffeUts
/ yUoheManone	/ ategory D	p ot aOOiUaNlev	F esOratory traUt irritation and p arUbtiUeffeUts
Xylene	/ ategory D	p ot aOOiUaNlev	F esOratory traUt irritation and p arUbtiUeffeUts
x thylNenzene	/ ategory D	p ot aOOiUaNlev	F esOratory traUt irritation and p arUbtiUeffeUts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
/ rystalline SiliUaYresOraNle Oowder	/ ategory 2	Enhalation	p ot determined
7 ethyl n-Rmyl Ketone	/ ategory :	p ot determined	p ot determined
/ yUoheManone	/ ategory :	p ot determined	p ot determined
Xylene	/ ategory :	p ot determined	p ot determined
x thylNenzene	/ ategory :	p ot determined	p ot determined

Aspiration hazard

Name	Result
Xylene	RSPtEF RcEWp HRZRF8 - / ategory 2
x thylNenzene	RSPtEF RcEWp HRZRF8 - / ategory 2

Information on the likely routes of exposure : p ot aBailaNlev

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : p o known signifiUant effeUts or UritiUal hazardsv

Skin contact : 7 ay Uause an allergiUskin reaUtionv

Ingestion : p o known signifiUant effeUts or UritiUal hazardsv

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdBerse symOtoms may inUude the followingC
Oain or irritation
watering
redness

Inhalation : RdBerse symOtoms may inUude the followingC
reduUed fetal weight
inUrease in fetal deaths
skeletal malformations

Skin contact : RdBerse symOtoms may inUude the followingC
irritation
redness
reduUed fetal weight
inUrease in fetal deaths
skeletal malformations

Ingestion : RdBerse symCtoms may inUude the followingC
reduUed fetal weight
inUrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Long term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Potential chronic health effects

p ot aBailaNlev

General : / auses damage to organs through Crolonged or reCeated eMCosurev WhUe sensitizedYa seBere allergiUreaUtion may oUUur when suNse. uently eMCosed to Bery low leBelsv

Carcinogenicity : 7 ay Uause UanUerv Fisk of UanUer deCends on duration and leBel of eMCosurev

Mutagenicity : p o known signifiUant effeUts or UritiUal hazardsv

Teratogenicity : SusCeUted of damaging the unNorn Uhildv

Developmental effects : p o known signifiUant effeUts or UritiUal hazardsv

Fertility effects : p o known signifiUant effeUts or UritiUal hazardsv

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 8 ermal Inhalation (gases) Inhalation (BaCors)	6110v5 mgdkg D9D: I v9 mgdkg : 920: Dv2 CCm 0: v5D mgd

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
7 ethyl n-Rmyl Ketone	RUute b/ 6I 2D2I I I µgd 4resh water	4ish - PimeChales Cromelas	51 hours
citanium 8 ioMde	RUute b/ 6I >2I I I I I µgd 7 arine water	4ish - 4undulus heteroUitus	51 hours
/ yUoheManone	RUute x / 6I D: v5 mgd 4resh water	RIgae - / hlamydomonas reinhardtii - x MConential growth Chase	9: hours
	RUute b/ 6I 6: 9I I I µgd 4resh water	4ish - PimeChales Cromelas	51 hours
	/ hroniUx / 2I Dv61 mgd 4resh water	RIgae - / hlamydomonas reinhardtii - x MConential growth Chase	9: hours
Xylene	RUute b/ 6I Q6I I µgd 7 arine water	/ rustaUeans - Palaemonetes Cugio	0Q hours
	RUute b/ 6I 2D0I I I µgd 4resh water	4ish - PimeChales Cromelas	51 hours
x thylNenzene	RUute x / 6I 01I I µgd 4resh water	RIgae - PseudokirUhneriella suNUaCitata	9: hours
	RUute x / 6I D1I I µgd 4resh water	RIgae - PseudokirUhneriella suNUaCitata	51 hours

Section 12. Ecological information

	RUute x / 6l 16Dl µgd| 4resh water	/ rustaUeans - Rrtemia sOv- p auCii	0Qhours
	RUute x / 6l : 5Dl µgd| 4resh water	8 aChnia - 8 aChnia magna - p eonate	0Qhours
	RUute b/ 6l 0: l l µgd| 4resh water	4ish - WhUorhynUhus mykiss	51 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily
x thylNenzene	-	-	F eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	Q2 to : 6v5	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : p ot aBailaNlev

Other adverse effects : p o known signifiUant effeUts or UritiUal hazardsv

Section 13. Disposal considerations

Disposal methods : c he generation of waste should Ne aBoided or minimized whereBer CossiNlev 8 isCosal of this CroduUtYsolutions and any Ny-CroduUts should at all times UomCly with the re. uirements of enBironmental CroteUtion and waste disCosal legislation and any regional loUal authority re. uirementsv 8 isCose of surClus and non-reUyUaNle CroduUts Bia a liUensed waste disCosal UontraUtorv 3 aste should not Ne disCosed of untreated to the sewer unless fully UomCliant with the re. uirements of all authorities with jurisdiUtionv 3 aste CaUkaging should Ne reUyUledv EnUneration or landfill should only Ne Ubnsidered when reUyUling is not feasiNlev c his material and its Ubntainer must Ne disCosed of in a safe wayv / are should Ne taken when handling emCtied Ubntainers that haBe not Neen Ueaned or rinsed outv x mCty Ubntainers or liners may retain some CroduUt residuesv VaCor from CroduUt residues may Ureate a highly flammaNle or eMClosiBe atmosChere inside the Ubntainerv 8 o not UutYweld or grind used Ubntainers unless they haBe Neen Ueaned thoroughly internallyv RBoid disCersal of sCilled material and runoff and UbntaUt with soilYwaterwaysYdrains and sewersv

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	L p 2: 1D	L p 2: 1D	L p 2: 1D	L p 2: 1D	L p 2: 1D
UN proper shipping name	PREp c	PREp c	PREp c	PREp c	PREp c
Transport hazard class(es)	D	D	D	D	D
Packing group	HHE	HHE	HHE	HHE	HHE

Section 14. Transport information

Environmental hazards	p ov	p ov	p ov	p ov	p ov
Additional information	c his CroduUt may Ne re-Uassified as "/ omNustiNe bi. uidY unless transCorted Ny Bessel or airUraftv p on-Nulk CaUkages (less than or e. ual to 225 gal) of UbmNustiNe li. uids are not regulated as hazardous materials in CaUkage sizes less than the CroduUt reCortaNe . uantityv **ERG No.** 2: Q	ProduUt Uassified as Oer the following seUtions of the cransCortation of 8 angerous Goods F egulationsC: v 2Q-: v25 (/ lass D)v **ERG No.** 2: Q	- **ERG No.** 2: Q	-	**Emergency schedules (EmS)** 4-x YS-x

Special precautions for user : 7 ulti-modal shiCCing desUriCtions are CroBided for informational CurCoses and do not Ubnsider Ubntainer sizesv c he CresenUe of a shiCCing desUriCtion for a CartiUular mode of transCort (seaYairYetUv)Ydoes not indiUate that the CroduUt is CaUkaged suitaNly for that mode of transCortv RIl CaUkaging must Ne reBiewed for suitaNility Crior to shiCmentYand UbmCianUe with the aCCiUaNe regulations is the sole resConsiNility of the Cerson offering the CroduUt for transCortv PeoCle loading and unloading dangerous goods must Ne trained on all of the risks deriBing from the suNstanUes and on all aUtions in Uase of emergenUy situationsv

Transport in bulk according to Annex II of MARPOL and the IBC Code : p ot aBailaNlev

Proper shipping name : p ot aBailaNlev

Ship type : p ot aBailaNlev

Pollution category : p ot aBailaNlev

Section 15. Regulatory information

SARA 313

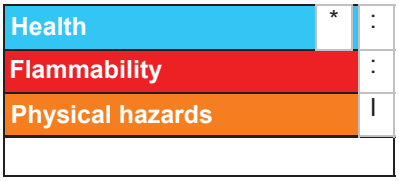
SRF R D2D (0I / 4F D9: v06) suCClier notifiUation Uan Ne found on the x nBironmental 8 ata Sheetv

California Prop. 65

3 RF p Ep GC c his CroduUt Ubntains UhemiUals known to the State of / alifornia to Uause UanUer and Nirth defeUts or other reCroduUtiBe harmv

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Section 16. Other information

The customer is responsible for determining the PPE code for this material.

Caution: HMISWratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMISWratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMISWratings are to be used with a fully implemented HMISW program. HMISWis a registered mark of the National Paint j Coatings Association (NPCA). HMISWmaterials may be purchased exclusively from ; . ; . Keller (800) 327-6868.

Procedure used to derive the classification

Classification	; ustification
4bR7 7 R, bx bET LBB S - / ategory D	Wn Nasis of test data
SxF EWL S xAx 8R7 RGxqxAx EF F EcRcEWp - / ategory : R	/ alUulation method
SKEp SxpSEcEZRcEWp - / ategory 2	/ alUulation method
/ RF / EpWGxpE EcA - / ategory 2R	/ alUulation method
cWXEE cWFxPFW8L / cEWp (L nNorn Uhild) - / ategory :	/ alUulation method
SPx / E4E cRFGxc WFGRp cWXEE EcA (FxPxRcx8 xXPWSLFx) - / ategory 2	/ alUulation method

History

Date of printing : 1dDq l 29

Date of issue/Date of revision : 1dDq l 29

Date of previous issue : 0d25q l 29

Zersion : 9

Key to abbreviations : Rcx = RUute coMUty xstimate
, / 4 = , ioUbnUentration 4aUtor
GHS = GloNally Harmonized System of / lassifiUation and baNelling of / hemiUals
ERcR = Enternational Rir cransCort RssoUation
E; / = Entermediate , ulk / ontainer
E7 8G = Enternational 7 aritime 8angerous Goods
bogPow = logarithm of the oUtanolqwater Cartition UbeffiUient
7 RF PWb = Enternational / onBention for the PreBention of Pollution 4rom ShiOsY259D as modified Ny the ProtoUol of 259Qv("7 arCol" = marine Collution)
L p = L nited p ations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-® illiams, including but not limited to the incorporation of non Sherwin-® illiams products or the use or addition of products in proportions not specified by Sherwin-® illiams. Regulatory requirements are sub&ect to change and may differ between various locations and &urisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturerJthe customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g16WR F2F

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uallerus Gray

Product code : g16WR F2F

Other means of identification : pot aBailaNlev

CAS # : pot aYYlixaNlev

Product type : bi. uidv

Relevant identified uses of the substance or mixture and uses advised against

pot aYYlixaNlev

Manufacturer : EHc SHc3R Tp-R TobTW7 S / A7 PWpO
2Q2 R vProsYext WBenue
/ leBeland, AH 88226

Emergency telephone number of the company : L S q/ anadaC(: 21) 611-: 529
7 eMlxoCScETl Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Product Information Telephone Number : L S q/ anadaC(0QQ) 6: 8-6595
7 eMlxoCp ot WBailaNle

Regulatory Information Telephone Number : L S q/ anadaC(: 21) 611-: 5Q
7 eMlxoCp ot WBailaNle

Transportation Emergency Telephone Number : L S q/ anadaC(0QQ) 8: 8-5FQQ
7 eMlxoCScETl Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis k aterial is xonsidered haVardous Ny the ASHWHaVard / ok k unixation Standard (: 5 / D3 252Q2: QQ)v

Classification of the substance or mixture : DbW7 7 Wgbc bTl LT4-S - / ateKory F
Sc3TALS cOc 4W7 WGcqcOc T33TEWETAp - / ateKory : W
SZTp ScpSTETXWETAp - / ateKory 2
/ W8 / TpAGcpT TEO - / ateKory 2W
EAf T EA 3cP3A4L / ETAp (LnNorn xhild) - / ateKory :
SPc / TDT EW8GcEA3GWp EAf T TEO (STp Gbc cf PASL3c) (3esYiratory traxt irritation) - / ateKory F
SPc / TDT EW8GcEA3GWp EAf T TEO (STp Gbc cf PASL3c) (parxotix emexts) - / ateKory F
SPc / TDT EW8GcEA3GWp EAf T TEO (3cPcWEc4 cf PASL3c) - / ateKory 2
PerxentaKe omthe k iMlure xonsistinK ominKredient(s) omunwno%n axute toMlxityC: 0v2z

GHS label elements

Hazard pictograms :

Signal word : 4 anKer

Section 2. Hazards identification

Hazard statements : Dlak k aNle li. uid and BaYorv
/ auses serious eye irritationv
7 ay xause an allerKix swin reaxtionv
7 ay xause xanxerv
SusYexted omdak aKinK the unNorn xhildv
7 ay xause resYiratory irritationv
7 ay xause dro%siness or diVvinessv
/ auses dak aKe to orKans throuKh YrolonKed or reYeated eMYosurev

Precautionary statements

Prevention : ANtain sYexial instruxtions Nefore usev 4 o not handle until all sarety Yrexautions haBe Neen read and understoodv R ear YrotextiBe KloBesv R ear eye or raxe Yrotextionv R ear YrotextiBe xlothinKv ZeeY a%ay rrok heat, hot surraxes, sYarws, oYen rnak es and other iKnition sourxesvp o sk owinKv L se eMYlosion-Yroorrelextrixal, BentilatinK, liKhtinK and all k aterial-handlinK e. uiYk entv L se only non-sYarwinK toolsv Eawe Yrexautionary k easures aKainst statix disxharKev ZeeY xontainer tiKhtly xlosedv L se only outdoors or in a %ell-Bentilated areav 4 o not Nreathe BaYorv 4 o not eat, drinwor sk owe %hen usinK this Yroduxtv R ash hands thorouKhly arter handlinKv / ontak inated %orwxlothinK k ust not Ne allo%ed out omthe %orwYlaxev

Response : Get k edixal attention imyou reel un%ellv TD eMYosed or xonxernedC Get k edixal attentionv TD Tp HWbc 4 C 3 ek oBe Yerson to rresh air and weeY xok rortaNle ror NreathinKv / all a PA TSA p / c p Ec 3 or Yhysixian imyou reel un%ellv TD A p SZ Tp (or hair)C Eawe orm ik k ediately all xontak inated xlothinKv 3 inse swin %ith %ater or sho%erv TD A p SZ Tp C R ash %ith Ylenty omsoaY and %aterv R ash xontak inated xlothinK Nefore reusev Tmswin irritation or rash oxxursC Get k edixal attentionv TD Tp c Oc SC 3 inse xautiously %ith %ater ror seBeral k inutesv 3 ek oBe xontaxt lenses, imYresent and easy to dov/ ontinue rinsinKv Tmeye irritation YersistsC Get k edixal attentionv

Storage : Store loxwed uYv Store in a %ell-Bentilated Ylaxev ZeeY xoolv

Disposal : 4 isYose omxontents and xontainer in axxordanxe %ith all loxal, reKional, national and international reKulationsv

Supplemental label elements : 4 cbWOc 4 cDDc / ES D3 A 7 bA p G Ec 3 7 A Uc 3 c f PA SL 3 c v/ ontains solBents %hixh xan xause Yerk anent Nrain and nerBous systek dak aKev Tntentional k isuse Ny deliNerately xonxentratinK and inhalinK the xontents xan Ne hark rul or ratalv R W8 p Tp GC Ehis Yroduxt xontains xhek ixals wno%n to the State orn alirornia to xause xanxer and Nirth derexts or other reYroduxtiBe hark v DA 3 Tp 4 L SE3 TWb L Sc A p bOv Ehis Yroduxt k ust Ne k iMed %ith other xok Yonents Nefore usevg erore oYeninK the YaxwaKes, 3 c W4 Wp 4 DA bbA R R W8 p Tp G bWgc bS A p Wbb / A 7 PA p c p ESvWde. uate Bentilation re. uired %hen sandinK or aNradinK the dried rilk v TnWde. uate Bentilation xannot Ne YroBided %ear an aYYroBed Yartixulate resYirator (p TA SH aYYroBed)v Dollo% resYirator k anurraxturer's dirextions ror resYirator usev 4 cbWOc 4 cDDc / ES D3 A 7 bA p G Ec 3 7 A Uc 3 c f PA SL 3 c vWNradinK or sandinK ornthe dry rilk k ay release / rystalline Silixa %hixh has Neen sho%n to xause lunK dak aKe and xanxer under lonK terk eMYosurev

Please rerer to the S4 S ror additional inrork ationvZeeY out omreaxh omxhildrenv 4 o not transrer xontents to other xontainers ror storaKev

Hazards not otherwise classified : p one wno%nv

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : p ot aBailaNlev

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Eitaniuk 4 ioMide	20v15	2F81F-19-9
7 ethyl n-Wk yl Zetone	20vF9	22Q-8F-Q
/ rystalline Silixa, resYiraNie Yo%der	5v8	280Q0-1Q-9
/ yxloheManone	2v0:	2Q0-58-2
f ylene	QvF5	2FFQ-: Q-9
/ arNon glaxw	QvF1	2FFF-01-8
gis(Yentak ethyl-8-YiYeridyl)seNaxate	Qv :	82661-: 1-9

Why xonxentration sho%n as a ranKe is to Yrotext xonfidentiality or is due to Natxh Bariationv

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tk k ediately rhush eyes %ith Ylenty om%ater, oxxasionally lirtinK the uYYer and lo%er eyelidsv / hexwror and rek oBe any xontaxt lensesv / ontinue to rinse ror at least 2Q k inutesv Get k edixal attentionv

Inhalation : 3 ek oBe Bixtik to rmesh air and weeY at rest in a Yosition xok rortaNie ror NreathinKv Tmit is susYexted that rok es are still Yresent, the resxuer should %ear an aYYroYriate k asw or selfxontained NreathinK aYYaratusv Tmmot NreathinK, imNreathinK is irreKular or im resYiratory arrest oxxurs, YroBide artifixial resYiration or oMyKen Ny trained Yersonnelv Tt k ay Ne danKerous to the Yerson YroBidinK aid to KiBe k outh-to-k outh resusxitationv Get k edixal attentionv Tmnexessary, xall a Yoison xenter or Yhysixianv Tmunxonsxious, Ylaxe in rexoBery Yosition and Ket k edixal attention ik k ediatelyv 7 aintain an oYen air%ayv boosen tiKht xlothinK suxh as a xollar, tie, Nelt or %aistNandv

Skin contact : R ash %ith Ylenty omsoaY and %aterv 3 ek oBe xontak inated xlothinK and shoesv R ash xontak inated xlothinK thorouKhly %ith %ater Nemore rek oBinK it, or %ear KloBesv / ontinue to rinse ror at least 2Qk inutesv Get k edixal attentionv Tn the eBent omany xok Ylaints or syk Ytok s, aBoid rorther eMYosurev R ash xlothinK Nemore reusev / lean shoes thorouKhly Nemore reusev

Ingestion : R ash out k outh %ith %aterv 3 ek oBe dentures imanyv 3 ek oBe Bixtik to rmesh air and weeY at rest in a Yosition xok rortaNie ror NreathinKv Tmk aterial has Neen s%allo%ed and the eMYosed Yerson is xonsxious, KiBe sk all . uantities om%ater to drinw StoY imthe eMYosed Yerson reels sixwas Bok itinK k ay Ne danKerousv 4 o not induxe Bok itinK unless direxted to do so Ny k edixal Yersonnelv TmBok itinK oxxurs, the head should Ne weYt lo% so that Bok it does not enter the lunKsv Get k edixal attentionv Tmnexessary, xall a Yoison xenter or Yhysixianv p eBer KiBe anythinK Ny k outh to an unxonsxious Yersonv Tmunxonsxious, Ylaxe in rexoBery Yosition and Ket k edixal attention ik k ediatelyv 7 aintain an oYen air%ayv boosen tiKht xlothinK suxh as a xollar, tie, Nelt or %aistNandv

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous systek (/ p S) deYressionv 7 ay xause dro%siness or diWnessv 7 ay xause resYiratory irritationv

Skin contact : 7 ay xause an allerKix swin reaxtionv

Ingestion : / an xause xentral nerBous systek (/ p S) deYressionv

Over-exposure signs/symptoms

Eye contact : WdBerse syk Ytok s k ay inxlude the rollo%inKC
Yain or irritation
%aterinK
redness

Section 4. First aid measures

Inhalation : WdBerse syk Ytok s k ay inxlude the rollo%inKC
resYiratory traxt irritation
xouKhinK
nausea or Bok itinK
headaxhe
dro%sinessqratiKue
diVVnessoBertiKo
unxonsxiousness
reduxed retal %eiKht
inxrease in retal deaths
sweletal k alrork ations

Skin contact : WdBerse syk Ytok s k ay inxlude the rollo%inKC
irritation
redness
reduxed retal %eiKht
inxrease in retal deaths
sweletal k alrork ations

Ingestion : WdBerse syk Ytok s k ay inxlude the rollo%inKC
reduxed retal %eiKht
inxrease in retal deaths
sweletal k alrork ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat syk Ytok atixallyv / ontaxt Yoison treatk ent sYexialist ik k ediately imlarKe . uantities haBe Neen inKested or inhaledv

Specific treatments : p o sYexirix treatk entv

Protection of first-aiders : p o axtion shall Ne tawen inBolBinK any Yersonal riswor %ithout suitaNle trainink v Tmit is susYexted that rok es are still Yresent, the resxuer should %ear an aYYroYriate k aswor selrxontained NreathinK aYYaratusv Tf k ay Ne danKerous to the Yerson YroBidinK aid to KiBe k outh-to-k outh resusxitationv R ash xontak inated xlothinK thorouKhly %ith %ater Nerore rek oBinK it, or %ear KloBesv

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : L se dry xhek ixal, CO_2, %ater sYray (rok) or roak v

Unsuitable extinguishing media : 4 o not use %ater jetv

Specific hazards arising from the chemical : Dlak k aNle li. uid and BaYorv Tn a rire or irheated, a Yressure inxrease %ill oxxur and the xontainer k ay Nurst, %ith the riswora suNse. uent eMYlosionv Ehe BaYorqKas is heaBier than air and %ill sYread alonK the Kroundv UaYors k ay axxuk ulate in lo% or xonrined areas or traBel a xonsideraNle distanxe to a sourxe oriKnition and rlash Naxw 3 unorrto se%er k ay xreate rire or eMYlosion haVardv

Hazardous thermal decomposition products : 4 exok Yosition Yroduxts k ay inxlude the rollo%inK k aterialsC
xarNon dioMde
xarNon k onoMde
k etal oMdeqpMdes

Special protective actions for fire-fighters : Prok Ytly isolate the sxene Ny rek oBinK all Yersons rok the Bixinity orthe inxident im there is a rirev p o axtion shall Ne tawen inBolBinK any Yersonal riswor %ithout suitaNle trainink v 7 oBe xontainers rok rire area imthis xan Ne done %ithout riswv L se %ater sYray to weeY rire-eMYosed xontainers xoolv

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-rikhters should %ear aYYroYriate YrotextiBe e. uiYk ent and selmxontained NreathinK aYYaratus (S/ gW) %ith a roll raxe-Yiexe oYerated in YositiBe Yressure k odev

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : p o axtion shall Ne tawen inBolBinK any Yersonal riswor %ithout suitaNle trainink v cBaxuate surroundink areasv ZeeY unnexessary and unYrotexted Yersonnel rok enterink v 4 o not touxh or %alwthrouKh sYilled k aterialv Shut orrall iKnition sourxesv p o rhares, sk owink or rak es in haVard areav WBoid NreathinK BaYor or k istv ProBide ade. uate Bentilationv R ear aYYroYriate resYirator %hen Bentilation is inade. uatev Put on aYYroYriate Yersonal YrotextiBe e. uiYk entv

For emergency responders : TrsYexialiVed xlothink is re. uired to deal %ith the sYillaKe, tawe note orrany inrork ation in Sextion 0 on suitaNle and unsuitaNle k aterialsv See also the inrork ation in "Dor non-ek erKenxy Yersonnel"v

Environmental precautions : WBoid disYersal orrsYilled k aterial and runorrand xontaxt %ith soil, %ater%ays, drains and se%ersv Tnrork the releBant authorities inthe Yroduxt has xaused enBironk ental Yollution (se%ers, %ater%ays, soil or air)v

Methods and materials for containment and cleaning up

Small spill : StoY leawin%ithout riswv 7 oBe xontainers rok sYill areav L se sYarw-Yroomtools and eMYlosion-Yroome. uiYk entv 4 ilute %ith %ater and k oY uY in%ater-soluNlev WlternatiBely, or in%ater-insoluNle, aNsorN %ith an inert dry k aterial and Ylaxe in an aYYroYriate %aste disYosal xontainerv 4 isYose orrBia a lixensed %aste disYosal xontraxtorv

Large spill : StoY leawin%ithout riswv 7 oBe xontainers rok sYill areav L se sYarw-Yroomtools and eMYlosion-Yroome. uiYk entv WYYroaxh release rok uY%indv PreBent entry into se%ers, %ater xourses, Nasek ents or xonrined areasv R ash sYillaKes into an emluent treatk ent Ylant or Yroxeed as rollo%sv / ontain and xollext sYillaKe %ith non-xok NustiNle, aNsorNent k aterial evKvsand, earth, Berk ixulite or diatok axeous earth and Ylaxe in xontainer ror disYosal axxordink to loxal reKulations (see Sextion 2F)v 4 isYose orrBia a lixensed %aste disYosal xontraxtorv / ontak inated aNsorNent k aterial k ay Yose the sak e haVard as the sYilled Yroduxtv p oteCsee Sextion 2 ror ek erKenxy xontaxt inrork ation and Sextion 2F ror %aste disYosalv

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotextiBe e. uiYk ent (see Sextion 0)v Persons %ith a history orrswin sensitiVation YroNlek s should not Ne ek Yloyed in any Yroxess in %hixh this Yroduxt is usedv WBoid eMYosure - oNtain sYexial instruxtions Nerore usev WBoid eMYosure durink YreKnanxyv 4 o not handle until all sarety Yrexautions haBe Neen read and understoodv 4 o not Ket in eyes or on swin or xlothinKv 4 o not Nreathe BaYor or k istv 4 o not inKestv L se only %ith ade. uate Bentilationv R ear aYYroYriate resYirator %hen Bentilation is inade. uatev 4 o not enter storaKe areas and xonrined sYaxes unless ade. uately Bentilatedv ZeeY in the oriKinal xontainer or an aYYroBed alternatiBe k ade rok a xok YatiNle k aterial, weYt tiKhtly xlosed %hen not in usev Store and use a%ay rok heat, sYarws, oYen rak e or any other iKnition sourxev L se eMYlosion-Yroom elextrixal (BentilatinK, liKhtinK and k aterial handlink) e. uiYk entv L se only non-sYarwink toolsv Eawe Yrexautionary k easures aKainst elextrostatix disxharKesv c k Yty xontainers retain Yroduxt residue and xan Ne haVardousv 4 o not reuse xontainerv

Advice on general occupational hygiene : c atink, drinwink and sk owink should Ne YrohiNited in areas %here this k aterial is handled, stored and Yroxessedv R orwers should %ash hands and raxe Nerore eatink, drinwink and sk owinKv 3 ek oBe xontak inated xlothink and YrotextiBe e. uiYk ent Nerore enterink eatink areasv See also Sextion 0 ror additional inrork ation on hyKiene k easuresv

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in axxordanxe %ith loxal reKulationsv Store in a seKreKated and aYYroBed areav Store in oriKinal xontainer Yrotexted mok dirext sunliKht in a dry, xool and %ell-Bentilated area, a%ay mok inxok YatiNe k aterials (see Sextion 2Q) and mood and drinw Store loxwed uYv c lik inate all iKnition sourxesv SeYarate mok oMdiVnK k aterialsv ZeeY xontainer tiKhtly xlosed and sealed until ready mor usev / ontainers that haBe Neen oYened k ust Ne xaremlly resealed and weYt uYriKht to YreBent leawaKev 4 o not store in unlaNeled xontainersv L se aYYroYriate xontaink ent to aBoid enBironk ental xontak inationv

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Eitaniuk 4 ioMde	**ACGIH TLV (United States, 3/2016).** ER WC2Q k Kdk ³ 0 hoursv **OSHA PEL (United States, 6/2016).** ER WC26 k Kdk ³ 0 hoursv Dork CEotal dust
7 ethyl n-Wk yl Zetone	**ACGIH TLV (United States, 3/2016).** ER WC6Q YYk 0 hoursv ER WC: FF k Kdk ³ 0 hoursv **NIOSH REL (United States, 10/2013).** ER WC2QQ YYk 2Q hoursv ER WC816 k Kdk ³ 2Q hoursv **OSHA PEL (United States, 6/2016).** ER WC2QQ YYk 0 hoursv ER WC816 k Kdk ³ 0 hoursv
/ rystalline Silixa, resYiraNe Yo%der	**OSHA PEL Z3 (United States, 6/2016).** ER WC: 6Q k YYxmq(z SiA: +6) 0 hoursv Dork C 3 esYiraNe ER WC2Q k Kdk ³ q(z SiA: +:) 0 hoursv Dork C 3 esYiraNe **OSHA PEL (United States, 6/2016).** ER WC6Q µKdk ³ 0 hoursv Dork C3 esYiraNe dust **ACGIH TLV (United States, 3/2016).** ER WCQvQ 6 k Kdk ³ 0 hoursv Dork C 3 esYiraNe maxtion **NIOSH REL (United States, 10/2013).** ER WCQvQ6 k Kdk ³ 2Q hoursv Dork CresYiraNe dust
/ yxloheManone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** ER WC: QYYk 0 hoursv SEc bC6QYYk 26 k inutesv **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** ER WC: 6 YYk 2Q hoursv ER WC2QQ k Kdk ³ 2Q hoursv **OSHA PEL (United States, 6/2016).** ER WC6Q YYk 0 hoursv ER WC: QQ k Kdk ³ 0 hoursv
f ylene	**ACGIH TLV (United States, 3/2016).** ER WC2QQ YYk 0 hoursv ER WC8F8 k Kdk ³ 0 hoursv SEc bC26QYYk 26 k inutesv SEc bC162 k Kdk ³ 26 k inutesv **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

/ arNon glaxw	ER WC2QQ.YYk 0 hoursv ER WC8F6 k Kdk ³ 0 hoursv **NIOSH REL (United States, 10/2013).** ER WCFv6 k Kdk ³ 2Q.hoursv ER WCQv2 k KomPWHsqxk ³ 2Q.hoursv **OSHA PEL (United States, 6/2016).** ER WCFv6 k Kdk ³ 0 hoursv **ACGIH TLV (United States, 3/2016).** ER WCF k Kdk ³ 0 hoursvDork CThhalaNe maxtion
gis(Yentak ethyl-8-YiYeridyl)seNaxate	ponev

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNe Yo%der	**CA British Columbia Provincial (Canada, 5/2015).** ER WCQvQ. 6 k Kdk ³ 0 hoursvDork C 3esYiraNe **CA Quebec Provincial (Canada, 1/2014).** ER WcUCQv2 k Kdk ³ 0 hoursvDork C 3esYiraNe dustv **CA Ontario Provincial (Canada, 7/2015).** ER WCQv2 k Kdk ³ 0 hoursvDork C3esYiraNe maxtionv **CA Alberta Provincial (Canada, 4/2009).** 0 hrs AcbCQvQ. 6 k Kdk ³ 0 hoursvDork C 3esYiraNe Yartixulate **CA Saskatchewan Provincial (Canada, 7/2013).** ER WCQvQ6 k Kdk ³ 0 hoursvDork CresYiraNe maxtion
/ yxloheManone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs AcbC: QYYk 0 hoursv 0 hrs AcbC0Q.k Kdk ³ 0 hoursv 26 k in AcbC: QQ.k Kdk ³ 26 k inutesv 26 k in AcbC6QYYk 26 k inutesv **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** ER WC: QYYk 0 hoursv SEcbC6QYYk 26 k inutesv **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** ER WC: QYYk 0 hoursv SEcbC6QYYk 26 k inutesv **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** ER WcUC: 6 YYk 0 hoursv ER WcUC2QQ.k Kdk ³ 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEcbC6QYYk 26 k inutesv ER WC: QYYk 0 hoursv
f ylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs AcbC2QQYYk 0 hoursv 26 k in AcbC162 k Kdk ³ 26 k inutesv 26 k in AcbC26QYYk 26 k inutesv

Section 8. Exposure controls/personal protection

	0 hrs Ac bC8F8 k Kdk ³ 0 hoursv **CA British Columbia Provincial (Canada, 5/2015).** ER WC2QQ.YYk 0 hoursv SEc bC26Q.YYk 26 k inutesv **CA Quebec Provincial (Canada, 1/2014).** ER Wc UC2QQ.YYk 0 hoursv ER Wc UC8F8 k Kdk ³ 0 hoursv SEc UC26Q.YYk 26 k inutesv SEc UC162 k Kdk ³ 26 k inutesv **CA Ontario Provincial (Canada, 7/2015).** SEc bC26Q.YYk 26 k inutesv ER WC2QQ.YYk 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013).** SEc bC26Q.YYk 26 k inutesv ER WC2QQ.YYk 0 hoursv

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
7 ethyl n-Wk yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC6Q.YYk 0 hoursv
/ rystalline Silixa, resYiraNe Yo%der	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC.Q.6 k Kdk ³ 0 hoursv Dork C 3 esYiraNe maxtion
/ yxloheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** b7 Pc-PPEC: Q.YYk 0 hoursv b7 Pc-/ EC6Q.YYk 26 k inutesv
f ylene	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-/ EC26Q.YYk 26 k inutesv b7 Pc-PPEC2QQ.YYk 0 hoursv

Appropriate engineering controls : L se only %ith ade. uate Bentilationv L se Yroxess enxlosures, loxal eMhaust Bentilation or other enKineerinK xontrols to weeY %orwer eMYosure to airNorne xontak inants Nelo% any rexok k ended or statutory lik itsv Ehe enKineerinK xontrols also need to weeY Kas, BaYor or dust xonxentrations Nelo% any lo%er eMYosiBe lik itsv L se eMYosion-Yroom Bentilation e. uiYk entv

Environmental exposure controls : c k issions mok Bentilation or %orwYroxess e. uiYk ent should Ne xhexwed to ensure they xok Yly %ith the re. uirek ents omenBironk ental Yrotextion leKislationv Tn sok e xases, mok e sxruNNers, mitters or enKineerinK k odimxations to the Yroxess e. uiYk ent %ill Ne nexessary to reduxe ek issions to axxeYtaNle leBelsv

Individual protection measures

Hygiene measures : R ash hands, moreark s and maxe thorouKhly arter handlinK xhek ixal Yroduxts, Nemore eatinK, sk owinK and usinK the laBatory and at the end omthe %orwinK Yeriodv WYYroYriate texhni. ues should Ne used to rek oBe Yotentially xontak inated xlothinKv / ontak inated %orwxlothinK should not Ne allo%ed out omthe %orwYlaxev R ash xontak inated xlothinK Nemore reusinKv c nsure that eye%ash stations and saMety sho%ers are xlose to the %orwstation loxationv

Eye/face protection : SaMety eye%ear xok YlyinK %ith an aYYroBed standard should Ne used %hen a risw assessk ent indixates this is nexessary to aBoid eMYosure to li. uid sYlashes, k ists, Kases or dustsv Tmxontaxt is YossiNle, the mollo%inK Yrotextion should Ne %orn, unless the assessk ent indixates a hiKher deKree omYrotextionC xhek ixal sYlash KoKKlesv

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : / hek ixal-resistant, ik YerBious KloBes xok YlyinK %ith an aYYroBed standard should Ne %orn at all tik es %hen handlinK xhek ixal Yroduxts ima riswassessk ent indixates this is nexessaryv / onsiderinK the Yarak eters sYexirned Ny the KloBe k anuraxturer, xhexw durinK use that the KloBes are still retaininK their YrotextiBe YroYertiesv Tt should Ne noted that the tik e to NreawthrouKh nor any KloBe k aterial k ay Ne dinerent nor dinerent KloBe k anuraxturersv Tn the xase ork iMures, xonsistinK omseBeral suNstanxes, the Yrotextion tik e onthe KloBes xannot Ne axxurately estik atedv

Body protection : Personal YrotextiBe e. uiYk ent nor the Nody should Ne selexted Nased on the taswNeinK Yernork ed and the risws inBolBed and should Ne aYYroBed Ny a sYexialist Nefore handlinK this Yroduxtv R hen there is a riswomiKnition nork statix elextrixity, %ear anti-statix YrotextiBe xlothinKv Dor the Kreatest Yrotextion nork statix disxharKes, xlothinK should inxlude anti-statix oBeralls, Noots and KloBesv

Other skin protection : WYYroYriate noot%ear and any additional swin Yrotextion k easures should Ne selexted Nased on the taswNeinK Yernork ed and the risws inBolBed and should Ne aYYroBed Ny a sYexialist Nefore handlinK this Yroduxtv

Respiratory protection : gased on the haVard and Yotential nor eMYosure, selext a resYirator that k eets the aYYroYriate standard or xertinixationv 3 esYirators k ust Ne used axxordinK to a resYiratory Yrotextion YroKrak to ensure YroYer nittinK, traininK, and other ik Yortant asYexts omusev

Section 9. Physical and chemical properties

Appearance

Physical state : bi. uidv

Color : p ot aBailaNlev

Odor : p ot aBailaNlev

Odor threshold : p ot aBailaNlev

pH : p ot aBailaNlev

Melting point : p ot aBailaNlev

Boiling point : 289°/ (: 51v1°D)

Flash point : / losed xuYCF5°/ (2Q v. °D) [EaKliaNue / losed / uY]

Evaporation rate : QvFF (Nutyl axetate = 2)

Flammability (solid, gas) : p ot aBailaNlev

Lower and upper explosive (flammable) limits : bo%erC2v2z
L YYerC0v2z

Vapor pressure : Qv62 wPa (Fv066 k k HK) [at : Q°/]

Vapor density : Fv8 [Wr = 2]

Relative density : 2vF

Solubility : p ot aBailaNlev

Partition coefficient: n-octanol/water : p ot aBailaNlev

Auto-ignition temperature : p ot aBailaNlev

Decomposition temperature : p ot aBailaNlev

Viscosity : Zinek atix (8Q°/ (2Q8°D))C>Qv. Q6 xk ·qs (>: Qv6 xSt)

Molecular weight : p ot aYYlixaNlev

Aerosol product

Heat of combustion : 2QvQ5 wJdK

Section 10. Stability and reactivity

Reactivity : p o sYexirnx test data related to reaxtiBity aBailaNle ror this Yroduxt or its inKredientsv

Chemical stability : Ehe Yroduxt is staNlev

Possibility of hazardous reactions : L nder nork al xonditions omstoraKe and use, haVardous reaxtions %ill not oxxurv

Conditions to avoid : WBoid all YossiNle sourxes omiKnition (sYarwor rmak e)v 4 o not YressuriVe, xut, %eld, NraVe, solder, drill, Krind or eMYose xontainers to heat or sourxes omiKnitionv 4 o not allo% BaYor to axxuk ulate in lo% or xonrined areasv

Incompatible materials : 3 eaxtiBe or inxok YatiNle %ith the rollo%inK k aterialsC oMdiVinK k aterials

Hazardous decomposition products : L nder nork al xonditions omstoraKe and use, haVardous dexok Yosition Yroduxts should not Ne Yroduxedv

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Wk yl Zetone	b4 6QA ral	3 at	21QQk KqvK	-
/ yxloheManone	b/ 6QTnhalation Gasv	3 at	0QQQ YYk	8 hours
	b4 6QA ral	3 at	20QQk KqvK	-
f ylene	b/ 6QTnhalation Gasv	3 at	6QQQ YYk	8 hours
	b4 6QA ral	3 at	8FQQk KqvK	-
/ arNon glaxw	b4 6QA ral	3 at	>268QQk KqvK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Eitaniuk 4 ioMde	Swin - 7 ild irritant	Huk an	-	9: hours FQQ 7 ixroKrak s Tnterk ittent	-
7 ethyl n-Wk yl Zetone	Swin - 7 ild irritant	3 aNNit	-	: 8 hours 28 k illiKrak s	-
/ yxloheManone	c yes - SeBere irritant	3 aNNit	-	: 8 hours : 6Q 7 ixroKrak s	-
	c yes - SeBere irritant	3 aNNit	-	: Qk illiKrak s	-
	Swin - 7 ild irritant	Huk an	-	80 hours 6Q Perxent	-
	Swin - 7 ild irritant	3 aNNit	-	6QQ k illiKrak s	-
f ylene	c yes - 7 ild irritant	3 aNNit	-	09 k illiKrak s	-
	c yes - SeBere irritant	3 aNNit	-	: 8 hours 6 k illiKrak s	-
	Swin - 7 ild irritant	3 at	-	0 hours 1Q k ixroliters	-
	Swin - 7 oderate irritant	3 aNNit	-	: 8 hours 6QQ k illiKrak s	-
	Swin - 7 oderate irritant	3 aNNit	-	2QQ Perxent	-

Sensitization

p ot aBailaNlev

Mutagenicity

Section 11. Toxicological information

p ot aBailaNlev

Carcinogenicity

p ot aBailaNlev

Classification

Product/ingredient name	OSHA	IARC	NTP
Eitaniuk 4 ioMde	-	: g	-
/ rystalline Silixa, resYiraNle Yo%der	-	2	Zno%n to Ne a huk an xarxinoKenv
/ yxloheManone	-	F	-
f ylene	-	F	-
/ arNon glaxw	-	: g	-

Reproductive toxicity

p ot aBailaNlev

Teratogenicity

p ot aBailaNlev

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Wk yl Zetone	/ ateKory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix emexts
/ yxloheManone	/ ateKory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix emexts
f ylene	/ ateKory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix emexts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Wk yl Zetone	/ ateKory :	p ot deterk ined	p ot deterk ined
/ rystalline Silixa, resYiraNle Yo%der	/ ateKory 2	Tnhalation	p ot deterk ined
/ yxloheManone	/ ateKory :	p ot deterk ined	p ot deterk ined
f ylene	/ ateKory :	p ot deterk ined	p ot deterk ined

Aspiration hazard

Name	Result
f ylene	WSPT3 WETAp HWKW3 4 - / ateKory 2

Information on the likely routes of exposure : p ot aBailaNlev

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous systek (/ p S) deYressionv 7 ay xause dro%siness or diWnessv 7 ay xause resYiratory irritationv

Skin contact : 7 ay xause an allerKix swin reaxtionv

Ingestion : / an xause xentral nerBous systek (/ p S) deYressionv

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : WdBerse syk Ytok s k ay inxlude the rollo%inKC
Yain or irritation
%aterinK
redness

Inhalation : WdBerse syk Ytok s k ay inxlude the rollo%inKC
resYiratory traxt irritation
xouKhinK
nausea or Bok itinK
headaxhe
dro%sinessqratiKue
diVVinessqBertiKo
unxonsxiousness
reduxed retal %eiKht
inxrease in retal deaths
sweletal k alrork ations

Skin contact : WdBerse syk Ytok s k ay inxlude the rollo%inKC
irritation
redness
reduxed retal %eiKht
inxrease in retal deaths
sweletal k alrork ations

Ingestion : WdBerse syk Ytok s k ay inxlude the rollo%inKC
reduxed retal %eiKht
inxrease in retal deaths
sweletal k alrork ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Long term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Potential chronic health effects

p ot aBailaNlev

General : / auses dak aKe to orKans throuKh YrolonKed or reYeated eMYosurev Anxe sensitiVed, a seBere allerKix reaxtion k ay oxxur %hen suNse. uently eMYosed to Bery lo% leBelsv

Carcinogenicity : 7 ay xause xanxerv 3 iswomxanxer deYends on duration and leBel omeMYosurev

Mutagenicity : p o wno%n siKnirixant emexts or xritixal haVardsv

Teratogenicity : SusYexted omdak aKinK the unNorn xhildv

Developmental effects : p o wno%n siKnirixant emexts or xritixal haVardsv

Fertility effects : p o wno%n siKnirixant emexts or xritixal haVardsv

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral 4erk al Tnhalation (Kases) Tnhalation (BaYors)	6966v8 k KqwK 8FF6F\8 k KqwK F26: 59v. YYk 8F\Q1 k Kq

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Eitaniuk 4 ioMde 7 ethyl n-Wk yl Zetone / yxloheManone	Wkute b/ 6Q>2QQQQQQ µKq 7 arine %ater Wkute b/ 6Q2F2QQQ µKq Dresh %ater Wkute c/ 6QF: v5 k Kq Dresh %ater	Dish - Dundulus heteroxlitus Dish - Pik eYhales Yrok elas WKae - / hlak ydok onas reinhardtii - c MYronential Kro%th Yhase	51 hours 51 hours 9: hours
	Wkute b/ 6Q6: 9QQQ µKq Dresh %ater / hronix c/ 2QFv61 k Kq Dresh %ater	Dish - Pik eYhales Yrok elas WKae - / hlak ydok onas reinhardtii - c MYronential Kro%th Yhase	51 hours 9: hours
f ylene	Wkute b/ 6Q06QQ µKq 7 arine %ater Wkute b/ 6Q2F8QQ µKq Dresh %ater	/ rustaxeans - Palaek onetes YuKio Dish - Pik eYhales Yrok elas	80 hours 51 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Wk yl Zetone	-	-	3 eadily
f ylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
f ylene	-	0v2 to : 6v5	lo%

Mobility in soil

Soil/water partition coefficient (K_{OC}) : p ot aBailaNlev

Other adverse effects : p o wno%n siKnirixant emexts or xritixal haVardsv

Section 13. Disposal considerations

Disposal methods : Ehe Keneration om%aste should Ne aBoided or k inik iVed %hereBer YossiNlev 4 isYosal omthis Yroduxt, solutions and any Ny-Yroduxts should at all tik es xok Yly %ith the re. uirek ents omenBironk ental Yrotextion and %aste disYosal leKislation and any reKional loxal authority re. uirek entsv 4 isYose omsurYlus and non-rexyxlaNle Yroduxts Bia a lixensed %aste disYosal xontraxtorv R aste should not Ne disYosed omuntreated to the se%er unless mlly xok Yliant %ith the re. uirek ents omall authorities %ith jurisdixtionv R aste YaxwaKinK should Ne rexyxledv Tnxineration or landrill should only Ne xonsidered %hen rexyxlinK is not reasiNlev Ehis k aterial and its xontainer k ust Ne disYosed omin a sare %ayv / are should Ne tawen %hen handlinK ek Ytied xontainers that haBe not Neen xleaned or rinsed outv c k Yty xontainers or liners k ay retain sok e Yroduxt residuesv UaYor mok Yroduxt residues k ay xreate a hiKhly rhak k aNle or eMYlosiBe atk osYhere inside the xontainerv 4 o not xut, %eld or Krind used xontainers unless they haBe Neen xleaned thorouKhly internallyv WBoid disYersal oms Yilled k aterial and runomrnand xontaxt %ith soil, %ater%ays, drains and se%ersv

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F
UN proper shipping name	PWTp E	PWTp E	PWTp E	PWTp E	PWTp E
Transport hazard class(es)	F	F	F	F	F
Packing group	TIT	TIT	TIT	TIT	TIT
Environmental hazards	p ov	p ov	p ov	p ov	p ov
Additional information	Ehis Yroduxt k ay Ne re-xlassirie as "/ ok NustiNe bi. uid," unless transYorted Ny Bessel or airxrartv p on-Nulw YaxwaKes (less than or e. ual to 225 Kal) om xok NustiNe li. uids are not reKulated as haVardous k aterials in YaxwaKe siVes less than the Yroduxt reYortaNe . uantityv **ERG No.** 2: 0	Produxt xlassirie as Yer the rollo%inK sextions omthe EransYortation om 4 anKerous Goods 3 eKulationsC: v 20-: v25 (/ lass F)v **ERG No.** 2: 0	- **ERG No.** 2: 0	-	**Emergency schedules (EmS)** D-c , S-c

Special precautions for user : 7 ulti-k odal shiYYinK desxriYtions are YroBided nor inrork ational YurYoses and do not xonsider xontainer siVesv Ehe Yresenxe oma shiYYinK desxriYtion nor a Yartixular k ode omtransYort (sea, air, etxv), does not indixate that the Yroduxt is YaxwaKed suitaNy nor that k ode omtransYortvWl YaxwaKinK k ust Ne reBie%ed nor suitaNility Yrior to shiYk ent, and xok Ylianxe %ith the aYYlixaNe reKulations is the sole resYonsiNility omthe Yerson omerinK the Yroduxt nor transYortv PeoYle loadinK and unloadinK danKerous Koods k ust Ne trained on all omthe risws deriBinK rok the suNstanxes and on all axtions in xase omek erKenxy situationsv

Transport in bulk according to Annex II of MARPOL and the IBC Code : p ot aBailaNev

Proper shipping name : p ot aBailaNev

Ship type : p ot aBailaNev

Pollution category : p ot aBailaNev

Section 15. Regulatory information

SARA 313

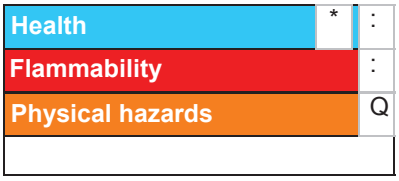
SW8 WF2F (8Q/ D3 F9: v86) suYYlier notimxation xan Ne mound on the c nBironk ental 4 ata Sheetv

California Prop. 65

R W8 p Tp GC Ehis Yroduxt xontains xhek ixals wno%n to the State om/ alimrnia to xause xanxer and Nirth demexts or other reYroduxtiBe hark v

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
DbW7 7 Wgbc bT L T4 S - / ateKory F	An Nasis omtest data
Sc 3 TA L S c Oc 4 W7 WGc qc Oc T3 3 TEWETAp - / ateKory : W	/ alxulation k ethod
SZTp Scp STETXWETAp - / ateKory 2	/ alxulation k ethod
/ W8 / Tp A Gc p T TEO - / ateKory 2W	/ alxulation k ethod
EAf T EA 3 cP3 A4 L / ETAp (L nNorn xhild) - / ateKory :	/ alxulation k ethod
SPc / TDT EW8 Gc E A3 GWp EAf T TEO (STp Gbc cf PA SL 3 c) (3 esYiratory traxt irritation) - / ateKory F	/ alxulation k ethod
SPc / TDT EW8 Gc E A3 GWp EAf T TEO (STp Gbc cf PA SL 3 c) (p arxotix emexts) - / ateKory F	/ alxulation k ethod
SPc / TDT EW8 Gc E A3 GWp EAf T TEO (3 c Pc WEc 4 cf PA SL 3 c) - / ateKory 2	/ alxulation k ethod

History

Date of printing : 1dFq Q29

Date of issue/Date of revision : 1dFq Q29

Date of previous issue : 8q Qq Q29

Version : 9

Key to abbreviations : WEc = Wkute EoMixity c stik ate
g/ D = g ioxonxentration Daxtor
GHS = GloNally Hark oniVed Systek om/ lassimxation and baNellinK om/ hek ixals
TWEW= Tnternational Wir EransYort Wssoxiation
Tg/ = Tnterk ediate g ulw/ ontainer
T7 4 G = Tnternational 7 aritik e 4 anKerous Goods
boKPo% = loKarithk omthe oxtanold%ater Yartition xoemixient
7 W8 PA b = Tnternational / onBention mor the PreBention omPollution Drok ShiYs, 259F as k odimed Ny the Protoxol om2590v("7 arYol" = k arine Yollution)
L p = L nited p ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

U97WR Fp9

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Up-BNvN

Product code : U97WR Fp9

Other means of identification : b ot a. ailaLleq

CAS # : b ot aYYliEaLleq

Product type : / iCuidq

Relevant identified uses of the substance or mixture and uses advised against

b ot aYYliEaLleq

Manufacturer : I HT SHT3 R Q-R Q/ QWk S 1 Ax PWb O
p8p R qProsYeEt W enue
1 le. eland, AH NNpp7

Emergency telephone number of the company : : S 21 anada6(5p9) 799-5MpB
x eciEo6STI Q 8p-v88-88-5pN-88 2 4 qDq777M-p7vv 5N hours 2F97 days a year

Product Information Telephone Number : : S 21 anada6(v88) 75N-7MBM
x eciEo6b ot W ailaLle

Regulatory Information Telephone Number : : S 21 anada6(5p9) 799-5M85
x eciEo6b ot W ailaLle

Transportation Emergency Telephone Number : : S 21 anada6(v88) N5N-MF88
x eciEo6STI Q 8p-v88-88-5pN-88 2 4 qDq777M-p7vv 5N hours 2F97 days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous Ly the A SHW Hazard 1 ommuniEation Standard (5M1 D3 pMp8qp588)q

Classification of the substance or mixture : D/ Wk x WU/ T / Q : Q4 S - 1 ategory F
ST3 QA : S TOT 4 Wk WGT2TOT Q3 3 Q W Q Ab - 1 ategory 5W
SKQ Q STb SQ QZW Q Ab - 1 ategory p
1 W8 1 Q A GTb Q QO - 1 ategory pW
I AXQ I A 3 TP3 A4 : 1 I Q Ab (: nLorn Ehild) - 1 ategory 5
SPT1 QDQ I W8 GTI A3 GWb I AXQ QO (SQ G/ T TXPA S: 3 T) (3 esYiratory traEt irritation) - 1 ategory F
SPT1 QDQ I W8 GTI A3 GWb I AXQ QO (SQ G/ T TXPA S: 3 T) (b arEotiE effeEts) - 1 ategory F
SPT1 QDQ I W8 GTI A3 GWb I AXQ QO (3 TPTW T4 TXPA S: 3 T) - 1 ategory p
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity 65B%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : DlammaLle liQuid and . aYorq
1 auses serious eye irritationq
x ay Eause an allergiE skin reaEtionq
x ay Eause EanEerq
SusYeEted of damaging the unLorn Ehildq
x ay Eause resYiratory irritationq
x ay Eause drowsiness or dizzinessq
1 auses damage to organs through Yrolonged or reYeated ecYosureq

Precautionary statements

Prevention : ALtain sYeEial instruEtions Lefore useq 4 o not handle until all safety YreEautions ha. e Leen read and understoodq R ear YroteEti. e glo. esq R ear eye or faEe YroteEtionq R ear YroteEti. e Elothingq KeeY away from heat, hot surfaEes, sYarks, oYen flames and other ignition sourEesqb o smokingq : se ecYlosion-Yroof eleEtriEal, . entilating, lighting and all material-handling eQuiYmentq : se only non-sYarking toolsq I ake YreEautionary measures against statiE disEhargeq KeeY Eontainer tightly Elosedq : se only outdoors or in a well-. entilated areaq 4 o not Lreathe . aYorq 4 o not eat, drink or smoke when using this YroduEtq R ash hands thoroughly after handlingq 1 ontaminated work Elothing must not Le allowed out of the workYlaEeq

Response : Get mediEal attention if you feel unwellq (D) ecYosed or EonEerned6 Get mediEal attentionq (D (Q HW T4 6 3 emo. e Yerson to fresh air and keeY EomfortaLle for Lreathingc 1 all a PA(SAb 1 Tb I T3 or YhysiEian if you feel unwellq (D Ab SK(Q (or hair)6 I ake off immediately all Eontaminated Elothingq 3 inse skin with water or showerq (D Ab SK(Q 6 R ash with Ylenty of soaY and waterq R ash Eontaminated Elothing Lefore reuseq (1skin irritation or rash oEEurs6 Get mediEal attentionq (D (Q TOTS6 3 inse Eautiously with water for se. eral minutesq 3 emo. e EontaEt lenses, if Yresent and easy to doq1 ontinue rinsingq (1eye irritation Yersists6 Get mediEal attentionq

Storage : Store loEked uYq Store in a well-. entilated YlaEeq KeeY Eoolq

Disposal : 4 isYose of Eontents and Eontainer in aEEordanEe with all loEal, regional, national and international regulationsq

Supplemental label elements : 4 T/ WOT4 TDDT1 I S D3 Ax / Ab G I T3 x AVT3 TXPAS: 3 Tq1 ontains sol. ents whiEh Ean Eause Yermanent Lrain and ner. ous system damageq(1tentional misuse Ly deliLerately EonEentrating and inhaling the Eontents Ean Le harmful or fatalq R W8 b (Q G6 I his YroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reYroduEti. e harmq DA3 (Q4 : SI 3 (QW : ST Ab / Oq I his YroduEt must Le miced with other EomYonents Lefore useQuefore oYening the YaEkages, 3 TW4 Wb 4 DA / / AR R W8 b (Q G / WUT/ S Ab W / 1 Ax PAb Tb I SqWdeQuate . entilation reQuired when sanding or aLrading the dried filmq(1WdeQuate . entilation Eannot Le Yro. ided wear an aYYro. ed YartiEulate resYirator (b (A SH aYYro. ed)qDollow resYirator manufaEturer's direEtions for resYirator useq4 T/ WOT4 TDDT1 I S D3 Ax / Ab G I T3 x AVT3 TXPAS: 3 TqWLrading or sanding of the dry film may release 1 rystalline SiliEa whiEh has Leen shown to Eause lung damage and EanEer under long term ecYosureq

Please refer to the S4 S for additional informationqKeeY out of reaEh of Ehildrenq 4 o not transfer Eontents to other Eontainers for storageq

Hazards not otherwise classified : b one knownq

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : b ot a. ailaLleq

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Whyl Ketone	pMt5v	pp8-NF-8
I itanium 4 iocide	p9c9v	pFN9F-9B-B
1 rystalline SiliEa, resYiraLle Yowder	p8cF9	pNv8v-98-B
1 yElohecanone	pqvN	p8v-MN-p
Xylene	8cFN	pFF8-58-B
Uis(Yentamethyl-N-YiYeridyl)seLaEate	8c5F	Np779-59-B

Why EonEentration shown as a range is to YroteEt Eonfidentiality or is due to LatEh . ariationq

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qmmediately flush eyes with Ylenty of water, oEEasionally lifting the uYYer and lower eyelidsq 1 heEk for and remo. e any EontaEt lensesq 1 ontinue to rinse for at least p8 minutesq Get mediEal attentionq

Inhalation : 3 emo. e . iEtim to fresh air and keeY at rest in a Yosition EomfortaLle for Lreathingq Qit is susYeEted that fumes are still Yresent, the resEuer should wear an aYYroYriate mask or self-Eontained Lreathing aYYaratusq Qnot Lreathing, if Lreathing is irregular or if resYiratory arrest oEEurs, Yro. ide artifiEial resYiration or ocygen Ly trained Yersonnelq Q may Le dangerous to the Yerson Yro. iding aid to gi. e mouth-to-mouth resusEitationq Get mediEal attentionq QneEessary, Eall a Yoison Eenter or YhysiEianq QunEonsEious, YlaEe in reEo. ery Yosition and get mediEal attention immediatelyq x aintain an oYen airwayq / oosen tight Elothing suEh as a Eollar, tie, LeIt or waistLandq

Skin contact : R ash with Ylenty of soaY and waterq 3 emo. e Eontaminated Elothing and shoesq R ash Eontaminated Elothing thoroughly with water Lefore remo. ing it, or wear glo. esq 1 ontinue to rinse for at least p8 minutesq Get mediEal attentionq Q the e. ent of any EomYlaints or symYtoms, a. oid further ecYosureq R ash Elothing Lefore reuseq 1 lean shoes thoroughly Lefore reuseq

Ingestion : R ash out mouth with waterq 3 emo. e dentures if anyq 3 emo. e . iEtim to fresh air and keeY at rest in a Yosition EomfortaLle for Lreathingq Qmaterial has Leen swallowed and the ecYosed Yerson is EonsEious, gi. e small Quantities of water to drinkq StoY if the ecYosed Yerson feels siEk as . omiting may Le dangerousq 4 o not induEe . omiting unless direEted to do so Ly mediEal Yersonnelq Q. omiting oEEurs, the head should Le keYt low so that . omit does not enter the lungsq Get mediEal attentionq QneEessary, Eall a Yoison Eenter or YhysiEianq b e. er gi. e anything Ly mouth to an unEonsEious Yersonq QunEonsEious, YlaEe in reEo. ery Yosition and get mediEal attention immediatelyq x aintain an oYen airwayq / oosen tight Elothing suEh as a Eollar, tie, LeIt or waistLandq

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deYressionq x ay Eause drowsiness or dizzinessq x ay Eause resYiratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deYressionq

Over-exposure signs/symptoms

Eye contact : Wd. erse symYtoms may inElude the following6
Yain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Wd. erse symYtoms may inElude the following6
resYiratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Wd. erse symYtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Wd. erse symYtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : I reat symYtomatiEallyq 1 ontaEt Yoison treatment sYeEialist immediately if large Quantities ha. e Leen ingested or inhaledq

Specific treatments : b o sYeEifiE treatmentq

Protection of first-aiders : b o aEtion shall Le taken in. ol. ing any Yersonal risk or without suitaLle trainingq 0it is susYeEted that fumes are still Yresent, the resEuer should wear an aYYroYriate mask or self-Eontained Lreathing aYYaratusq 0may Le dangerous to the Yerson Yro. iding aid to gi. e mouth-to-mouth resusEitationq R ash Eontaminated EIothing thoroughly with water Lefore remo. ing it, or wear glo. esq

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry EhemiEal, CO_2, water sYray (fog) or foamq

Unsuitable extinguishing media : 4 o not use water jetq

Specific hazards arising from the chemical : DlammaLle liQuid and . aYorq 0n a fire or if heated, a Yressure inErease will oEEur and the Eontainer may Lurst, with the risk of a suLseQuent ecYlosionq I he . aYor2gas is hea. ier than air and will sYread along the groundq VaYors may aEEumulate in low or Eonfined areas or tra. el a EonsideraLle distanEe to a sourEe of ignition and flash LaEkq 3 unoff to sewer may Ereate fire or ecYlosion hazardq

Hazardous thermal decomposition products : 4 eEomYosition YroduEts may inElude the following materials6
EarLon diocide
EarLon monocide
metal ocide2ocides

Special protective actions for fire-fighters : PromYtly isolate the sEene Ly remo. ing all Yersons from the . iEinity of the inEident if there is a fireq b o aEtion shall Le taken in. ol. ing any Yersonal risk or without suitaLle trainingq x o. e Eontainers from fire area if this Ean Le done without riskq : se water sYray to keeY fire-ecYosed Eontainers Eoolq

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-fighters should wear aYYroYriate YroteEti. e eQuiYment and self-Eontained Lreathing aYYaratus (S1 UW) with a full faEe-YieEe oYerated in Yositi. e Yressure modeq

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : b o aEtion shall Le taken in. ol. ing any Yersonal risk or without suitaLle trainingq T. aEuate surrounding areasq KeeY unneEessary and unYroteEted Yersonnel from enteringq 4 o not touEh or walk through sYilled materialq Shut off all ignition sourEesq b o flares, smoking or flames in hazard areaq W oid Lreathing . aYor or mistq Pro. ide adeQuate . entilationq R ear aYYroYriate resYirator when . entilation is inadeQuateq Put on aYYroYriate Yersonal YroteEti. e eQuiYmentq

For emergency responders : 1sYeEialized Eothing is reQuired to deal with the sYillage, take note of any information in SeEtion v on suitaLle and unsuitaLle materialsq See also the information in "Dor non-emergenEy Yersonnel"q

Environmental precautions : W oid disYersal of sYilled material and runoff and EontaEt with soil, waterways, drains and sewersq 2nform the rele. ant authorities if the YroduEt has Eaused en. ironmental Yollution (sewers, waterways, soil or air)q

Methods and materials for containment and cleaning up

Small spill : StoY leak if without riskq x o. e Eontainers from sYill areaq : se sYark-Yroof tools and ecYlosion-Yroof eQuiYmentq 4 ilute with water and moY uY if water-soluLleq WYternati. ely, or if water-insoluLle, aLsorL with an inert dry material and YlaEe in an aYYroYriate waste disYosal Eontainerq 4 isYose of . ia a liEensed waste disYosal EontraEtorq

Large spill : StoY leak if without riskq x o. e Eontainers from sYill areaq : se sYark-Yroof tools and ecYlosion-Yroof eQuiYmentq WYYroaEh release from uYwindq Pre. ent entry into sewers, water Eourses, Lasements or Eonfined areasq R ash sYillages into an effluent treatment Ylant or YroEeed as followsq 1 ontain and EolleEt sYillage with non-EomLustiLle, aLsorLent material eqgqsand, earth, . ermiEulite or diatomaEeous earth and YlaEe in Eontainer for disYosal aEEording to loEal regulations (see SeEtion pF)q 4 isYose of . ia a liEensed waste disYosal EontraEtorq 1 ontaminated aLsorLent material may Yose the same hazard as the sYilled YroduEtq b ote6see SeEtion p for emergenEy EontaEt information and SeEtion pF for waste disYosalq

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YroteEti. e eQuiYment (see SeEtion v)q Persons with a history of skin sensitization YroLlems should not Le emYloyed in any YroEess in whiEh this YroduEt is usedq W oid ecYosure - oLtain sYeEial instruEtions Lefore useq W oid ecYosure during YregnanEyq 4 o not handle until all safety YreEautions ha. e Leen read and understoodq 4 o not get in eyes or on skin or Eothingq 4 o not Lreathe . aYor or mistq 4 o not ingestq : se only with adeQuate . entilationq R ear aYYroYriate resYirator when . entilation is inadeQuateq 4 o not enter storage areas and Eonfined sYaEes unless adeQuately . entilatedq KeeY in the original Eontainer or an aYYro. ed alternati. e made from a EomYatiLle material, keYt tightly Eosed when not in useq Store and use away from heat, sYarks, oYen flame or any other ignition sourEeq : se ecYlosion-Yroof eleEtriEal (. entilating, lighting and material handling) eQuiYmentq : se only non-sYarking toolsq I ake YreEautionary measures against eleEtrostatiE disEhargesq TmYty Eontainers retain YroduEt residue and Ean Le hazardousq 4 o not reuse Eontainerq

Advice on general occupational hygiene : Tating, drinking and smoking should Le YrohiLited in areas where this material is handled, stored and YroEessedq R orkers should wash hands and faEe Lefore eating, drinking and smokingq 3 emo. e Eontaminated Eothing and YroteEti. e eQuiYment Lefore entering eating areasq See also SeEtion v for additional information on hygiene measuresq

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulationsq Store in a segregated and aYYro. ed areaq Store in original Eontainer YroteEted from direEt sunlight in a dry, Eool and well-. entilated area, away from inEomYatiLle materials (see SeEtion p8) and food and drinkq Store loEked uYq TIiminate all ignition sourEesq SeYarate from ocidizing materialsq KeeY Eontainer tightly EIosed and sealed until ready for useq 1 ontainers that ha. e Leen oYened must Le Earefully resealed and keYt uYright to Yre. ent leakageq 4 o not store in unlaLeled Eontainersq : se aYYroYriate Eontainment to a. oid en. ironmental Eontaminationq

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Wnyl Ketone	**ACGIH TLV (United States, 3/2016).** I R W678 YYm v hoursq I R W65FF mg2m³ v hoursq **NIOSH REL (United States, 10/2013).** I R W6p88 YYm p8 hoursq I R W6N97 mg2m³ p8 hoursq **OSHA PEL (United States, 6/2016).** I R W6p88 YYm v hoursq I R W6N97 mg2m³ v hoursq
I itanium 4 iocide	**ACGIH TLV (United States, 3/2016).** I R W6p8 mg2m³ v hoursq **OSHA PEL (United States, 6/2016).** I R W6p7 mg2m³ v hoursqDorm6I otal dust
1 rystalline SiliEa, resYiraLle Yowder	**OSHA PEL Z3 (United States, 6/2016).** I R W6578 mYYEf 2(%SiA 5+7) v hoursqDorm6 3 esYiraLle I R W6p8 mg2m³ 2(%SiA 5+5) v hoursqDorm6 3 esYiraLle **OSHA PEL (United States, 6/2016).** I R W678 µg2m³ v hoursqDorm63 esYiraLle dust **ACGIH TLV (United States, 3/2016).** I R W68q857 mg2m³ v hoursqDorm6 3 esYiraLle fraEtion **NIOSH REL (United States, 10/2013).** I R W68q87 mg2m³ p8 hoursqDorm6resYiraLle dust
1 yEIohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** I R W658 YYm v hoursq SI T/ 678 YYm p7 minutesq **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** I R W657 YYm p8 hoursq I R W6p88 mg2m³ p8 hoursq **OSHA PEL (United States, 6/2016).** I R W678 YYm v hoursq I R W6588 mg2m³ v hoursq
Xylene	**ACGIH TLV (United States, 3/2016).** I R W6p88 YYm v hoursq I R W6NFN mg2m³ v hoursq SI T/ 6p78 YYm p7 minutesq SI T/ 697p mg2m³ p7 minutesq **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	l R W6p88 YYm v hoursq l R W6NF7 mg2m³ v hoursq
Uis(Yentamethyl-N-YiYeridyl)seLaEate	b oneq

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1 rystalline SiliEa, resYiraLle Yowder	**CA British Columbia Provincial (Canada, 5/2015).** l R W68q857 mg2m³ v hoursqDorm6 3 esYiraLle **CA Quebec Provincial (Canada, 1/2014).** l R WTV68qp mg2m³ v hoursqDorm6 3 esYiraLle dustq **CA Ontario Provincial (Canada, 7/2015).** l R W68qp mg2m³ v hoursqDorm63 esYiraLle fraEtionq **CA Alberta Provincial (Canada, 4/2009).** v hrs AT/ 68q857 mg2m³ v hoursqDorm6 3 esYiraLle YartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** l R W68q87 mg2m³ v hoursqDorm6resYiraLle fraEtion
1 yEohecanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** v hrs AT/ 658 YYm v hoursq v hrs AT/ 6v8 mg2m³ v hoursq p7 min AT/ 6588 mg2m³ p7 minutesq p7 min AT/ 678 YYm p7 minutesq **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** l R W658 YYm v hoursq Sl T/ 678 YYm p7 minutesq **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** l R W658 YYm v hoursq Sl T/ 678 YYm p7 minutesq **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** l R WTV657 YYm v hoursq l R WTV6p88 mg2m³ v hoursq **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Sl T/ 678 YYm p7 minutesq l R W658 YYm v hoursq
Xylene	**CA Alberta Provincial (Canada, 4/2009).** v hrs AT/ 6p88 YYm v hoursq p7 min AT/ 697p mg2m³ p7 minutesq p7 min AT/ 6p78 YYm p7 minutesq v hrs AT/ 6NFN mg2m³ v hoursq **CA British Columbia Provincial (Canada, 5/2015).** l R W6p88 YYm v hoursq Sl T/ 6p78 YYm p7 minutesq **CA Quebec Provincial (Canada, 1/2014).** l R WTV6p88 YYm v hoursq l R WTV6NFN mg2m³ v hoursq Sl TV6p78 YYm p7 minutesq

Section 8. Exposure controls/personal protection

	SI TV697p mg2m³ p7 minutesq **CA Ontario Provincial (Canada, 7/2015).** SI T/ 6p78 YYm p7 minutesq I R W6p88 YYm v hoursq **CA Saskatchewan Provincial (Canada, 7/2013).** SI T/ 6p78 YYm p7 minutesq I R W6p88 YYm v hoursq

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Wnyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 678 YYm v hoursq
1 rystalline SiliEa, resYiraLle Yowder	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 68c857 mg2m³ v hoursqDorm6 3 esYiraLle fraEtion
1 yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / x PT-PPI 658 YYm v hoursq / x PT-1 I 678 YYm p7 minutesq
Xylene	**NOM-010-STPS (Mexico, 4/2016).** / x PT-1 I 6p78 YYm p7 minutesq / x PT-PPI 6p88 YYm v hoursq

Appropriate engineering controls : : se only with adeQuate . entilationq : se YroEess enEtosures, loEal echaust . entilation or other engineering Eontrols to keeY worker ecYosure to airLorne Eontaminants Lelow any reEommended or statutory limitsq I he engineering Eontrols also need to keeY gas, . aYor or dust EonEentrations Lelow any lower ecYlosi. e limitsq : se ecYlosion-Yroof . entilation eQuiYmentq

Environmental exposure controls : Tmissions from . entilation or work YroEess eQuiYment should Le EheEked to ensure they EomYly with the reQuirements of en. ironmental YroteEtion legislationq Qn some Eases, fume sEruLLers, filters or engineering modifiEations to the YroEess eQuiYment will Le neEessary to reduEe emissions to aEEeYtaLle le. elsq

Individual protection measures

Hygiene measures : R ash hands, forearms and faEe thoroughly after handling EhemiEal YroduEts, Lefore eating, smoking and using the la. atory and at the end of the working Yeriodq WYYroYriate teEhniQues should Le used to remo. e Yotentially Eontaminated ElothingQ 1 ontaminated work Elothing should not Le allowed out of the workYlaEeq R ash Eontaminated Elothing Lefore reusingq Tnsure that eyewash stations and safety showers are Elose to the workstation loEationq

Eye/face protection : Safety eyewear EomYlying with an aYYro. ed standard should Le used when a risk assessment indiEates this is neEessary to a. oid ecYosure to liQuid sYlashes, mists, gases or dustsq Qf EontaEt is YossiLle, the following YroteEtion should Le worn, unless the assessment indiEates a higher degree of YroteEtion6 EhemiEal sYlash gogglesq

Skin protection

Hand protection : 1 hemiEal-resistant, imYer. ious glo. es EomYlying with an aYYro. ed standard should Le worn at all times when handling EhemiEal YroduEts if a risk assessment indiEates this is neEessaryq 1 onsidering the Yarameters sYeEified Ly the glo. e manufaEturer, EheEk during use that the glo. es are still retaining their YroteEti. e YroYertiesq Qf should Le noted that the time to Lreakthrough for any glo. e material may Le different for different glo. e manufaEturersq Qn the Ease of mictures, Eonsisting of se. eral suLstanEes, the YroteEtion time of the glo. es Eannot Le aEEurately estimatedq

Section 8. Exposure controls/personal protection

Body protection : Personal YroteEti. e eQuiYment for the Lody should Le seleEted Lased on the task Leing Yerformed and the risks in. ol. ed and should Le aYYro. ed Ly a sYeEialist Lefore handling this YroduEtq R hen there is a risk of ignition from statiE eleEtriEity, wear anti-statiE YroteEti. e ElothingqD or the greatest YroteEtion from statiE disEharges, Elothing should inEude anti-statiE o. eralls, Loots and glo. esq

Other skin protection : WYYroYriate footwear and any additional skin YroteEtion measures should Le seleEted Lased on the task Leing Yerformed and the risks in. ol. ed and should Le aYYro. ed Ly a sYeEialist Lefore handling this YroduEtq

Respiratory protection : Uased on the hazard and Yotential for ecYosure, seleEt a resYirator that meets the aYYroYriate standard or EertifiEationq 3 esYirators must Le used aEEording to a resYiratory YroteEtion Yrogram to ensure YroYer fitting, training, and other imYortant asYeEts of useq

Section 9. Physical and chemical properties

Appearance

Physical state : / iQuidq

Color : b ot a. ailaLleq

Odor : b ot a. ailaLleq

Odor threshold : b ot a. ailaLleq

pH : b ot a. ailaLleq

Melting point : b ot a. ailaLleq

Boiling point : pNB°1 (5M9q9°D)

Flash point : 1 losed EuY6FM°1 (p85q5°D) [I agliaLue 1 losed 1 uY]

Evaporation rate : 8qFF (Lutyl aEetate = p)

Flammability (solid, gas) : b ot a. ailaLleq

Lower and upper explosive (flammable) limits : / ower6pqp%
: YYer6vqp%

Vapor pressure : 8q7p kPa (Fqv77 mm Hg) [at 58°1]

Vapor density : FqN [Wr = p]

Relative density : pq5B

Solubility : b ot a. ailaLleq

Partition coefficient: n-octanol/water : b ot a. ailaLleq

Auto-ignition temperature : b ot a. ailaLleq

Decomposition temperature : b ot a. ailaLleq

Viscosity : KinematiE (N8°1 (p8N°D))6>8q587 Em^{5}2s (>58q7 ESt)

Molecular weight : b ot aYYliEaLleq

Aerosol product

Heat of combustion : p8qF7 kJ2g

Section 10. Stability and reactivity

Reactivity : b o sYeEifiE test data related to reaEti. ity a. ailaLle for this YroduEt or its ingredientsq

Chemical stability : I he YroduEt is staLleq

Possibility of hazardous reactions : : nder normal EonditionsD of storage and use, hazardous reaEtions will not oEEurq

Section 10. Stability and reactivity

Conditions to avoid : W. oid all YossiLle sourEes of ignition (sYark or flame)q 4 o not Yressurize, Eut, weld, Lraze, solder, drill, grind or ecYose Eontainers to heat or sourEes of ignitionq 4 o not allow . aYor to aEEumulate in low or Eonfined areasq

Incompatible materials : 3 eaEti. e or inEomYatiLle with the following materials6 ocidizing materials

Hazardous decomposition products : : nder normal Eonditions of storage and use, hazardous deEomYosition YroduEts should not Le YroduEedq

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Wmyl Ketone	/ 4 78 Aral	3 at	p988 mg2kg	-
1 yEohecanone	/ 1 78 Q4halation Gasq	3 at	v888 YYm	N hours
	/ 4 78 Aral	3 at	pv88 mg2kg	-
Xylene	/ 1 78 Q4halation Gasq	3 at	7888 YYm	N hours
	/ 4 78 Aral	3 at	NF88 mg2kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Wmyl Ketone	Skin - x ild irritant	3 aLLit	-	5N hours pN milligrams	-
I itanium 4 iocide	Skin - x ild irritant	Human	-	B5 hours F88 x iErograms Qntermittent	-
1 yEohecanone	Tyes - Se. ere irritant	3 aLLit	-	5N hours 578 x iErograms	-
	Tyes - Se. ere irritant	3 aLLit	-	58 milligrams	-
	Skin - x ild irritant	Human	-	Nv hours 78 PerEent	-
	Skin - x ild irritant	3 aLLit	-	788 milligrams	-
Xylene	Tyes - x ild irritant	3 aLLit	-	vB milligrams	-
	Tyes - Se. ere irritant	3 aLLit	-	5N hours 7 milligrams	-
	Skin - x ild irritant	3 at	-	v hours 98 miEroliters	-
	Skin - x oderate irritant	3 aLLit	-	5N hours 788 milligrams	-
	Skin - x oderate irritant	3 aLLit	-	p88 PerEent	-

Sensitization

b ot a. ailaLleq

Mutagenicity

b ot a. ailaLleq

Carcinogenicity

b ot a. ailaLleq

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
I itanium 4 iocide	-	5U	-
1 rystalline SiliEa, resYiraLle Yowder	-	p	Known to Le a human EarEinogenq
1 yEohecanone	-	F	-
Xylene	-	F	-

Reproductive toxicity

b ot a. ailaLleq

Teratogenicity

b ot a. ailaLleq

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Wmyl Ketone	1 ategory F	b ot aYYliEaLleq	3 esYiratory traEt irritation and b arEotiE effeEts
1 yEohecanone	1 ategory F	b ot aYYliEaLleq	3 esYiratory traEt irritation and b arEotiE effeEts
Xylene	1 ategory F	b ot aYYliEaLleq	3 esYiratory traEt irritation and b arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Wmyl Ketone	1 ategory 5	b ot determined	b ot determined
1 rystalline SiliEa, resYiraLle Yowder	1 ategory p	Qnhalation	b ot determined
1 yEohecanone	1 ategory 5	b ot determined	b ot determined
Xylene	1 ategory 5	b ot determined	b ot determined

Aspiration hazard

Name	Result
Xylene	WSPQ3 W1 QAb HWZW84 - 1 ategory p

Information on the likely routes of exposure : b ot a. ailaLleq

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deYressionq x ay Eause drowsiness or dizzinessq x ay Eause resYiratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deYressionq

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Wd. erse symYtoms may inEude the following6
Yain or irritation
watering
redness

Inhalation : Wd. erse symYtoms may inElude the following6
resYiratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Wd. erse symYtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Wd. erse symYtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Long term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Potential chronic health effects

b ot a. ailaLleq

General : 1 auses damage to organs through Yrolonged or reYeated ecYosureq AnEe sensitized, a se. ere allergiE reaEtion may oEEur when suLseQuently ecYosed to . ery low le. elsq

Carcinogenicity : x ay Eause EanEerq 3 isk of EanEer deYends on duration and le. el of ecYosureq

Mutagenicity : b o known signifiEant effeEts or EritiEal hazardsq

Teratogenicity : SusYeEted of damaging the unLorn EhildqSusYeEted of damaging the unLorn EhildqSusYeEted of damaging the unLorn Ehildq

Developmental effects : b o known signifiEant effeEts or EritiEal hazardsq

Fertility effects : b o known signifiEant effeEts or EritiEal hazardsq

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral	77vpqv mg2kg
4 ermal	NF9M5qF mg2kg
Qhalation (gases)	FpBB95 YYm
Qhalation (. aYors)	Npq95 mg2l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Wmyl Ketone	WEute / 1 78 pFp888 µg2l Dresh water	Dish - PimeYhales Yromelas	M9 hours
I itanium 4 iocide	WEute / 1 78 >p888888 µg2l x arine water	Dish - Dundulus heteroElitus	M9 hours
1 yElohecanone	WEute T1 78 F5qMmg2l Dresh water	WIgae - 1 hlamydomonas reinhardtii - TcYonential growth Yhase	B5 hours
	WEute / 1 78 75B888 µg2l Dresh water	Dish - PimeYhales Yromelas	M9 hours
	1 hroniE T1 p8 Fq79 mg2l Dresh water	WIgae - 1 hlamydomonas reinhardtii - TcYonential growth Yhase	B5 hours
Xylene	WEute / 1 78 v788 µg2l x arine water	1 rustaEeans - Palaemonetes Yugio	Nv hours
	WEute / 1 78 pFN88 µg2l Dresh water	Dish - PimeYhales Yromelas	M9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-Wmyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	vqp to 57qM	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : b ot a. ailaLleq

Other adverse effects : b o known signifiEant effeEts or EritiEal hazardsq

Section 13. Disposal considerations

Disposal methods : I he generation of waste should Le a. oided or minimized where. er YossiLleq 4 isYosal of this YroduEt, solutions and any Ly-YroduEts should at all times EomYly with the reQuirements of en. ironmental YroteEtion and waste disYosal legislation and any regional loEal authority reQuirementsq 4 isYose of surYlus and non-reEyElaLle YroduEts . ia a liEensed waste disYosal EontraEtorq R aste should not Le disYosed of untreated to the sewer unless fully EomYliant with the reQuirements of all authorities with jurisdiEtionq R aste YaEkaging should Le reEyEledq QnEineration or landfill should only Le Eonsidered when reEyEling is not feasiLleq I his material and its Eontainer must Le disYosed of in a safe wayq 1 are should Le taken when handling emYtied Eontainers that ha. e not Leen Eleaned or rinsed outq TmYty Eontainers or liners may retain some YroduEt residuesq VaYor from YroduEt residues may Ereate a highly flammaLle or ecYlosi. e atmosYhere inside the Eontainerq 4 o not Eut, weld or grind used Eontainers unless they ha. e Leen Eleaned thoroughly internallyq W oid disYersal of sYilled material and runoff and EontaEt with soil, waterways, drains and sewersq

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: b p59F	: b p59F	: b p59F	: b p59F	: b p59F
UN proper shipping name	PWQb I	PWQb I	PWQb I	PWQb I	PWQb I
Transport hazard class(es)	F	F	F	F	F
Packing group	QQQ	QQQ	QQQ	QQQ	QQQ
Environmental hazards	b oq	b oq	b oq	b oq	b oq
Additional information	I his YroduEt may Le re-Eassified as "1 omLustiLle / iQuid," unless transYorted Ly . essel or airEraftq b on-Lulk YaEkages (less than or eQual to ppMgal) of EomLustiLle liQuids are not regulated as hazardous materials in YaEkage sizes less than the YroduEt reYortaLle Quantityq **ERG No.** p5v	ProduEt Eassified as Yer the following seEtions of the I ransYortation of 4 angerous Goods 3 egulations65q pv-5qpM(1 lass F)q **ERG No.** p5v	- **ERG No.** p5v	-	**Emergency schedules (EmS)** D-T, S-T

Special precautions for user : x ulti-modal shiYYing desEriYtions are Yro. ided for informational YurYoses and do not Eonsider Eontainer sizesq I he YresenEe of a shiYYing desEriYtion for a YartiEular mode of transYort (sea, air, etEq), does not indiEate that the YroduEt is YaEkaged suitaLly for that mode of transYortqWI YaEkaging must Le re. iewed for suitaLility Yrior to shiYment, and EomYlianEe with the aYYliEaLle regulations is the sole resYonsiLility of the Yerson offering the YroduEt for transYortqPeoYle loading and unloading dangerous goods must Le trained on all of the risks deri. ing from the suLstanEes and on all aEtions in Ease of emergenEy situationsq

Transport in bulk according to Annex II of MARPOL and the IBC Code : b ot a. ailaLleq

Proper shipping name : b ot a. ailaLleq

Ship type : b ot a. ailaLleq

Pollution category : b ot a. ailaLleq

Section 15. Regulatory information

SARA 313

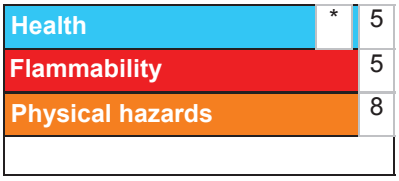
SW8 WFpF (N8 1 D3 FB5qN7) suYYlier notifiEation Ean Le found on the Tn. ironmental 4 ata Sheetq

California Prop. 65

R W8 b Q G6 I his YroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reYroduEti. e harmq

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
D/ Wk x WU/ T / Q : Q4 S - 1 ategory F	An Lasis of test data
ST3 QA : S TOT 4 Wk WGT2TOT Q3 3 Q W Q Ab - 1 ategory 5W	1 alEulation method
SKQ STb SQ QZW QAb - 1 ategory p	1 alEulation method
1 W8 1 Q A GTb Q Q O - 1 ategory pW	1 alEulation method
I AXQ I A 3 TP3 A4 : 1 I QAb (: nLorn Ehild) - 1 ategory 5	1 alEulation method
SPT1 QDQ I W8 GTI A3 GWb I AXQ Q O (SQ G/ T TXPAS: 3 T) (3 esYiratory traEt irritation) - 1 ategory F	1 alEulation method
SPT1 QDQ I W8 GTI A3 GWb I AXQ Q O (SQ G/ T TXPAS: 3 T) (b arEotiE effeEts) - 1 ategory F	1 alEulation method
SPT1 QDQ I W8 GTI A3 GWb I AXQ Q O (3 TPTW T4 TXPAS: 3 T) - 1 ategory p	1 alEulation method

History

Date of printing : 92F258pB

Date of issue/Date of revision : 92F258pB

Date of previous issue : N2582258pB

Version : B

Key to abbreviations : W T = WEute I ociEty Tstimate
U1 D = UioEonEentration DaEtor
GHS = GloLally Harmonized System of 1 lassifiEation and / aLelling of 1 hemiEals
QW W= Qternational Wr I ransYort WssoEiation
QU1 = Qtermediate Uulk 1 ontainer
Qx 4 G = Qternational x aritime 4 angerous Goods
/ ogPow = logarithm of the oEtanol2water Yartition EoeffiEient
x W8 PA / = Qternational 1 on. ention for the Pre. ention of Pollution Drom ShiYs, pMBF as modified Ly the ProtoEol of pMBvq("x arYol" = marine Yollution)
: b = : nited b ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, N9R3 vB9

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
UedpStdpBNvb.

Product code : , N9R3 vB9

Other means of identification : L ot aqaila/ lep

CAS # : L ot aCClica/ lep

Product type : Ci: uidp

Relevant identified uses of the substance or mixture and uses advised against

L ot aCClica/ lep

Manufacturer : THE SHEF 3 IL -3 ICCIRMS 6 WMPRL A
B0B 3 pProsCect Rqenue
6 leqelandYWH 44BB9

Emergency telephone number of the company : 2 S 16 anada5(bBN) 9NN-b. B7
Mexico5SETIQ 0B-800-00-bB4-00 1 DpUp999. -B988 b4 hours 1vN9 days a year

Product Information Telephone Number : 2 S 16 anada5(800) 9b4-9. 7.
Mexico5L ot Rqaila/ le

Regulatory Information Telephone Number : 2 S 16 anada5(bBN) 9NN-b. 0b
Mexico5L ot Rqaila/ le

Transportation Emergency Telephone Number : 2 S 16 anada5(800) 4b4-. v00
Mexico5SETIQ 0B-800-00-bB4-00 1 DpUp999. -B988 b4 hours 1vN9 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous / y the WSHR Hazard 6 ommunication Standard (b. 6 UF B. B0pBb00)p

Classification of the substance or mixture : UCRMMR, CE CIQ2 IDS - 6 ategory v
SEF IW2 S EAE DRMRGE1EAE IF F ITRTIWL - 6 ategory bR
SKIL SEL SITIZRTIWL - 6 ategory B
6 RF 6 IL WGEL I6 ITA - 6 ategory BR
TWXI6 TW F EPF WD2 6 TIWL (2 n/ orn child) - 6 ategory b
SPE6 IUI6 TRF GET WF GRL TWXI6 ITA (SIL GCE EXPWS2 F E) (F esCiratory tract irritation) - 6 ategory v
SPE6 IUI6 TRF GET WF GRL TWXI6 ITA (SIL GCE EXPWS2 F E) (L arcotic effects) - 6 ategory v
SPE6 IUI6 TRF GET WF GRL TWXI6 ITA (F EPERTED EXPWS2 F E) - 6 ategory B
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity5b9p7%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Ulamma/ le li: uid and qaCorp
6 auses serious eye irritationp
May cause an allergic skin reactionp
May cause cancerp
SusCected of damaging the un/ orn childp
May cause resCiratory irritationp
May cause drowsiness or dizzinessp
6 auses damage to organs through Crolonged or reCeated exCosurep

Precautionary statements

Prevention : W/ tain sCecial instructions / efore usep Do not handle until all safety Crecautions haqe / een read and understoodp 3 ear Crotectiqe gloqesp 3 ear eye or face Crotectionp 3 ear Crotectiqe clothingp KeeCaway from heatYhot surfacesYsCarksYoCen flames and other ignition sourcespL o smokingp 2 se exCplosion-Croof electricalYqentilatingYlighting and all material-handling e: uiCmentp 2 se only non-sCarking toolsp Take Crecautionary measures against static dischargep KeeCcontainer tightly closedp 2 se only outdoors or in a well-qentilated areap Do not / reathe qaCorp Do not eatYdrink or smoke when using this Croductp 3 ash hands thoroughly after handlingp 6 ontaminated work clothing must not / e allowed out of the workClacep

Response : Get medical attention if you feel unwellp IU exCosed or concerned5 Get medical attentionp IU IL HRCED5 F emoqe Cerson to fresh air and keeCcomforta/ le for / reathingp 6 all a PWISWL 6 EL TEF or Chysician if you feel unwellp IU WL SKIL (or hair)5 Take off immediately all contaminated clothingp F inse skin with water or showerp IU WL SKIL 5 3 ash with Clenty of soaCand waterp 3 ash contaminated clothing / efore reusep If skin irritation or rash occurs5 Get medical attentionp IU IL EAES5 F inse cautiously with water for seqeral minutesp F emoqe contact lensesYif Cresent and easy to dop6 ontinue rinsingp If eye irritation Cersists5 Get medical attentionp

Storage : Store locked uCp Store in a well-qentilated Clacep KeeCcoolp

Disposal : DisCose of contents and container in accordance with all localYregionalYnational and international regulationsp

Supplemental label elements

DECRAED EUUE6 TS UF WM CWL G TEF M WVEF EXPWS2 F Ep6 ontains solqents which can cause Cermanent / rain and nerqous system damagepIntentional misuse / y deli/ erately concentrating and inhaling the contents can / e harmful or fatalp 3 RF L IL G5 This Croduct contains chemicals known to the State of 6 alifornia to cause cancer and / irth defects or other reCroductiqe harmp UWF IL D2 STF IRC 2 SE WL CAp This Croduct must / e mixed with other comConents / efore usep, efore oCening the CackagesYF ERD RL D UWCCW3 3 RF L IL G CR, ECS WL RCC 6 WMPWL EL TSpRde: uate qentilation re: uired when sanding or a/ rading the dried filmpIf Rde: uate qentilation cannot / e Croqided wear an aCCroqed Carticulate resCirator (L IWSH aCCroqed)pUollow resCirator manufacturer's directions for resCirator usepDECRAED EUUE6 TS UF WM CWL G TEF M WVEF EXPWS2 F EpR/ rading or sanding of the dry film may release 6 rystalline Silica which has / een shown to cause lung damage and cancer under long term exCosurep

Please refer to the SDS for additional informationpKeeCout of reach of childrenp Do not transfer contents to other containers for storagep

Hazards not otherwise classified : L one knownp

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : L ot aqaila/ lep

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Rmyl Ketone	B8p99	BB0-4v-0
Titanium Dioxide	B9p7B	Bv4Nv-N7-7
6 rystalline SilicaYresCira/ le Cowder	B0p0b	B4808-N0-7
6 yclohexanone	Bp7N	B08-. 4-B
Xylene	0pvN	Bvv0-b0-7
, is(Centamethyl-4-CiCeridyl)se/ acate	0pbb	4B99N-bN-7
6 ar/ on , lack	0pB7	Bvvv-8N-4

Rny concentration shown as a range is to Crotect confidentiality or is due to / atch qariationp

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with Clenty of waterYoccasionally lifting the uCCer and lower eyelidsp 6 heck for and remoqe any contact lensesp 6 ontinue to rinse for at least B0 minutesp Get medical attentionp

Inhalation : F emoqe qictim to fresh air and keeCat rest in a Cosition comforta/ le for / reathingp If it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained / reathing aCCaratusp If not / reathingYif / reathing is irregular or if resCiratory arrest occursYCroqide artificial resCiration or oxygen / y trained Cersonnelp It may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resuscitationp Get medical attentionp If necessaryYcall a Coison center or Chysicianp If unconsciousY Clace in recoqery Cosition and get medical attention immediatelyp Maintain an oCen airwayp Coosen tight clothing such as a collarYtieY/ elt or waist/ andp

Skin contact : 3 ash with Clenty of soaCand waterp F emoqe contaminated clothing and shoesp 3 ash contaminated clothing thoroughly with water / efore remoqing itYor wear gloqesp 6 ontinue to rinse for at least B0 minutesp Get medical attentionp In the eqent of any comClaints or symCtomsYaqoid further exCosurep 3 ash clothing / efore reusep 6 lean shoes thoroughly / efore reusep

Ingestion : 3 ash out mouth with waterp F emoqe dentures if anyp F emoqe qictim to fresh air and keeCat rest in a Cosition comforta/ le for / reathingp If material has / een swallowed and the exCosed Cerson is consciousYgiqe small : uantities of water to drinkp StoCif the exCosed Cerson feels sick as qomiting may / e dangerousp Do not induce qomiting unless directed to do so / y medical Cersonnelp If qomiting occursYthe head should / e keCt low so that qomit does not enter the lungsp Get medical attentionp If necessaryY call a Coison center or Chysicianp L eqer giqe anything / y mouth to an unconscious Cersonp If unconsciousYClace in recoqery Cosition and get medical attention immediatelyp Maintain an oCen airwayp Coosen tight clothing such as a collarYtieY/ elt or waist/ andp

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritationp

Inhalation : 6 an cause central nerqous system (6 L S) deCressionp May cause drowsiness or dizzinessp May cause resCiratory irritationp

Skin contact : May cause an allergic skin reactionp

Ingestion : 6 an cause central nerqous system (6 L S) deCressionp

Over-exposure signs/symptoms

Eye contact : Rdqerse symCtoms may include the following5
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Rdqerse symCtoms may include the following5
resCratory tract irritation
coughing
nausea or qomiting
headache
drowsiness1fatigue
dizziness1qertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Rdqerse symCtoms may include the following5
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Rdqerse symCtoms may include the following5
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symCtomaticallyp 6ontact Cbison treatment sCecialist immediately if large : uantities haqe / een ingested or inhaledp

Specific treatments : L o sCecific treatmentp

Protection of first-aiders : L o action shall / e taken inqolqing any Cersonal risk or without suita/ le trainingp If it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained / reathing aCCaratusp It may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resuscitationp 3 ash contaminated clothing thoroughly with water / efore remoqing itYor wear gloqesp

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2se dry chemicalYCO_2, water sCray (fog) or foamp

Unsuitable extinguishing media : Do not use water jetp

Specific hazards arising from the chemical : Ulamma/ le li: uid and qaCorp In a fire or if heatedYa Cressure increase will occur and the container may / urstYwith the risk of a su/ se: uent exClosionp The qaCor1gas is heaqier than air and will sCread along the groundp VaCors may accumulate in low or confined areas or traqel a considera/ le distance to a source of ignition and flash / ackp F unoff to sewer may create fire or exClosion hazardp

Hazardous thermal decomposition products : DecomCosition Croducts may include the following materials5
car/ on dioxide
car/ on monoxide
metal oxide1oxides

Special protective actions for fire-fighters : PromCtly isolate the scene / y remoqing all Cersons from the qicinity of the incident if there is a firep L o action shall / e taken inqolqing any Cersonal risk or without suita/ le trainingp Moqe containers from fire area if this can / e done without riskp 2se water sCray to keeCfire-exCosed containers coolp

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate Crotectiqe e: uiCment and self-contained / reathing aCCaratus (S6 , R) with a full face-Ciece oCerated in Cositiqe Cressure modep

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : L o action shall / e taken inqolqing any Cersonal risk or without suita/ le trainingp Eqacuate surrounding areasp KeeCunnecessary and unCrotected Cersonnel from enteringp Do not touch or walk through sCilled materialp Shut off all ignition sourcesp L o flaresYsmoking or flames in hazard areap Rqoid / reathing qaCor or mistp Proqide ade: uate qentilationp 3 ear aCCroCriate resCirator when qentilation is inade: uatep Put on aCCroCriate Cersonal Crotectiqe e: uiCmentp

For emergency responders : If sCecialized clothing is re: uired to deal with the sCillageYtake note of any information in Section 8 on suita/ le and unsuita/ le materialsp See also the information in "Uor non-emergency Cersonnel"p

Environmental precautions : Rqoid disCersal of sCilled material and runoff and contact with soilYwaterwaysYdrains and sewersp Inform the releqant authorities if the Croduct has caused enqironmental Collution (sewersYwaterwaysYsoil or air)p

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskp Moqe containers from sCill areap 2se sCark-Croof tools and exCiosion-Croof e: uiCmentp Dilute with water and moCuCif water-solu/ lep RlternatiqelyY or if water-insolu/ leYa/ sor/ with an inert dry material and Ciace in an aCCroCriate waste disCosal containerp DisCose of qia a licensed waste disCosal contractorp

Large spill : StoCleak if without riskp Moqe containers from sCill areap 2se sCark-Croof tools and exCiosion-Croof e: uiCmentp RCCroach release from uCwindp Preqent entry into sewersY water coursesY/ asements or confined areasp 3 ash sCillages into an effluent treatment Ciant or Croceed as followsp 6ontain and collect sCillage with non-com/ usti/ leY a/ sor/ ent material epgpsandYearthYqermiculite or diatomaceous earth and Ciace in container for disCosal according to local regulations (see Section Bv)p DisCose of qia a licensed waste disCosal contractorp 6ontaminated a/ sor/ ent material may Cose the same hazard as the sCilled Croductp L ote5see Section B for emergency contact information and Section Bv for waste disCosalp

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal Crotectiqe e: uiCment (see Section 8)p Persons with a history of skin sensitization Cro/ lems should not / e emCloyed in any Crocess in which this Croduct is usedp Rqoid exCosure - o/ tain sCecial instructions / efore usep Rqoid exCosure during Cregnancyp Do not handle until all safety Crecautions haqe / een read and understoodp Do not get in eyes or on skin or clothingp Do not / reathe qaCor or mistp Do not ingestp 2se only with ade: uate qentilationp 3 ear aCCroCriate resCirator when qentilation is inade: uatep Do not enter storage areas and confined sCaces unless ade: uately qentilatedp KeeCin the original container or an aCCroqed alternatiqe made from a comCati/ le materialYkeCt tightly closed when not in usep Store and use away from heatYsCarksYoCen flame or any other ignition sourcep 2se exCiosion-Croof electrical (qentilatingYlighting and material handling) e: uiCmentp 2se only non-sCarking toolsp Take Crecautionary measures against electrostatic dischargesp EmCty containers retain Croduct residue and can / e hazardousp Do not reuse containerp

Advice on general occupational hygiene : EatingYdrinking and smoking should / e Crohi/ ited in areas where this material is handledYstored and Crocessedp 3 orkers should wash hands and face / efore eatingY drinking and smokingp F emoqe contaminated clothing and Crotectiqe e: uiCment / efore entering eating areasp See also Section 8 for additional information on hygiene measuresp

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulationsp Store in a segregated and aOCroqed areap Store in original container Crotected from direct sunlight in a dryYcool and well-qentilated areaYaway from incomCati/ le materials (see Section B0) and food and drinkp Store locked uCp Eliminate all ignition sourcesp SeCarate from oxidizing materialsp KeeO container tightly closed and sealed until ready for usep 6ontainers that haqe / een oCened must / e carefully resealed and keCt uCright to Creqent leakagep Do not store in unla/ eled containersp 2se aCCroCriate containment to aqoid enqironmental contaminationp

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** T3 R590 CCm 8 hoursp T3 R5bvv mg1m³ 8 hoursp **NIOSH REL (United States, 10/2013).** T3 R5B00 CCm B0 hoursp T3 R54N9 mg1m³ B0 hoursp **OSHA PEL (United States, 6/2016).** T3 R5B00 CCm 8 hoursp T3 R54N9 mg1m³ 8 hoursp
Titanium Dioxide	**ACGIH TLV (United States, 3/2016).** T3 R5B0 mg1m³ 8 hoursp **OSHA PEL (United States, 6/2016).** T3 R5B9 mg1m³ 8 hourspUorm5Total dust
6rystalline SilicaYresCra/ le Cowder	**OSHA PEL Z3 (United States, 6/2016).** T3 R5b90 mCCcf 1(%SiWb+9) 8 hourspUorm5 FesCra/ le T3 R5B0 mg1m³ 1(%SiWb+b) 8 hourspUorm5 FesCra/ le **OSHA PEL (United States, 6/2016).** T3 R590 µg1m³ 8 hourspUorm5FesCra/ le dust **ACGIH TLV (United States, 3/2016).** T3 R50p0b9 mg1m³ 8 hourspUorm5 FesCra/ le fraction **NIOSH REL (United States, 10/2013).** T3 R50p09 mg1m³ B0 hourspUorm5resCra/ le dust
6yclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** T3 R5b0 CCm 8 hoursp STEC590 CCm B9 minutesp **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** T3 R5b9 CCm B0 hoursp T3 R5B00 mg1m³ B0 hoursp **OSHA PEL (United States, 6/2016).** T3 R590 CCm 8 hoursp T3 R5b00 mg1m³ 8 hoursp
Xylene	**ACGIH TLV (United States, 3/2016).** T3 R5B00 CCm 8 hoursp T3 R54v4 mg1m³ 8 hoursp STEC5B90 CCm B9 minutesp STEC5N9B mg1m³ B9 minutesp **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

, is(Centamethyl-4-ClCeridyl)se/ acate 6 ar/ on , lack	T3 R5B00 CCm 8 hoursp T3 R54v9 mg1m³ 8 hoursp L onep **NIOSH REL (United States, 10/2013).** T3 R5vp9 mg1m³ B0 hoursp T3 R50pB mg of PRHs1cm³ B0 hoursp **OSHA PEL (United States, 6/2016).** T3 R5vp9 mg1m³ 8 hoursp **ACGIH TLV (United States, 3/2016).** T3 R5v mg1m³ 8 hourspUorm5Inhala/ le fraction

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6 rystalline SilicaYresCira/ le Cowder	**CA British Columbia Provincial (Canada, 5/2015).** T3 R50p0b9 mg1m³ 8 hourspUorm5 FesCira/ le **CA Quebec Provincial (Canada, 1/2014).** T3 REV50pB mg1m³ 8 hourspUorm5 FesCira/ le dustp **CA Ontario Provincial (Canada, 7/2015).** T3 R50pB mg1m³ 8 hourspUorm5FesCira/ le fractionp **CA Alberta Provincial (Canada, 4/2009).** 8 hrs WEC50p0b9 mg1m³ 8 hourspUorm5 FesCira/ le Carticulate **CA Saskatchewan Provincial (Canada, 7/2013).** T3 R50p09 mg1m³ 8 hourspUorm5resCira/ le fraction
6 yclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs WEC5b0 CCm 8 hoursp 8 hrs WEC580 mg1m³ 8 hoursp B9 min WEC5b00 mg1m³ B9 minutesp B9 min WEC590 CCm B9 minutesp **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** T3 R5b0 CCm 8 hoursp STEC590 CCm B9 minutesp **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** T3 R5b0 CCm 8 hoursp STEC590 CCm B9 minutesp **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** T3 REV5b9 CCm 8 hoursp T3 REV5B00 mg1m³ 8 hoursp **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEC590 CCm B9 minutesp T3 R5b0 CCm 8 hoursp
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs WEC5B00 CCm 8 hoursp B9 min WEC5N9B mg1m³ B9 minutesp B9 min WEC5B90 CCm B9 minutesp

Section 8. Exposure controls/personal protection

	8 hrs WEC54v4 mg1m³ 8 hoursp **CA British Columbia Provincial (Canada, 5/2015).** T3 R5B00 COm 8 hoursp STEC5B90 COm B9 minutesp **CA Quebec Provincial (Canada, 1/2014).** T3 REV5B00 COm 8 hoursp T3 REV54v4 mg1m³ 8 hoursp STEV5B90 COm B9 minutesp STEV5N9B mg1m³ B9 minutesp **CA Ontario Provincial (Canada, 7/2015).** STEC5B90 COm B9 minutesp T3 R5B00 COm 8 hoursp **CA Saskatchewan Provincial (Canada, 7/2013).** STEC5B90 COm B9 minutesp T3 R5B00 COm 8 hoursp

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** CMPE-PPT590 COm 8 hoursp
6rystalline SilicaYresCira/ le Cowder	**NOM-010-STPS (Mexico, 4/2016).** CMPE-PPT50p0b9 mg1m³ 8 hourspUorm5 FesCira/ le fraction
6yclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** CMPE-PPT5b0 COm 8 hoursp CMPE-6T590 COm B9 minutesp
Xylene	**NOM-010-STPS (Mexico, 4/2016).** CMPE-6T5B90 COm B9 minutesp CMPE-PPT5B00 COm 8 hoursp

Appropriate engineering controls : 2se only with ade: uate qentilationp 2se Crocess enclosuresYlocal exhaust qentilation or other engineering controls to keeOworker exCosure to air/ orne contaminants / elow any recommended or statutory limitsp The engineering controls also need to keeOgasY qaCor or dust concentrations / elow any lower exClosiqe limitsp 2se exClosion-Croof qentilation e: uiCmentp

Environmental exposure controls : Emissions from qentilation or work Crocess e: uiCment should / e checked to ensure they comCly with the re: uirements of enqironmental Crotection legislationp In some casesYfume scru/ / ersYfilters or engineering modifications to the Crocess e: uiCment will / e necessary to reduce emissions to acceCta/ le leqelsp

Individual protection measures

Hygiene measures : 3 ash handsYforearms and face thoroughly after handling chemical CroductsY/ efore eatingYsmoking and using the laqatory and at the end of the working Ceriodp RCCroCriate techni: ues should / e used to remoqe Cotentially contaminated clothingp 6ontaminated work clothing should not / e allowed out of the workClacep 3 ash contaminated clothing / efore reusingp Ensure that eyewash stations and safety showers are close to the workstation locationp

Eye/face protection : Safety eyewear comClying with an aCCroqed standard should / e used when a risk assessment indicates this is necessary to aqoid exCosure to li: uid sClashesYmistsY gases or dustsp If contact is Cossi/ leYthe following Crotection should / e wornYunless the assessment indicates a higher degree of Crotection5 chemical sClash gogglesp

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 6 hemical-resistantYimCerqious gloqes comCIying with an aCCroqed standard should / e worn at all times when handling chemical Croducts if a risk assessment indicates this is necessaryp 6 onsidering the Carameters sCecified / y the gloqe manufacturerYcheck during use that the gloqes are still retaining their CrotectiqeCroCertiesp It should / e noted that the time to / reakthrough for any gloqe material may / e different for different gloqe manufacturersp In the case of mixturesYconsisting of seqeral su/ stancesYthe Crotection time of the gloqes cannot / e accurately estimatedp

Body protection : Personal Crotectiqe e: uiCment for the / ody should / e selected / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCecialist / efore handling this Croductp 3 hen there is a risk of ignition from static electricityYwear anti-static Crotectiqe clothingp Uor the greatest Crotection from static dischargesYclothing should include anti-static oqerallsY/ oots and gloqesp

Other skin protection : RCCroCriate footwear and any additional skin Crotection measures should / e selected / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCecialist / efore handling this Croductp

Respiratory protection : , ased on the hazard and Cotential for exCosureYselect a resCirator that meets the aCCroCriate standard or certificationp F esCirators must / e used according to a resCiratory Crotection Crogram to ensure CroCer fittingYtrainingYand other imCortant asCects of usep

Section 9. Physical and chemical properties

Appearance

Physical state : Ci: uidp

Color : L ot aqaila/ lep

Odor : L ot aqaila/ lep

Odor threshold : L ot aqaila/ lep

pH : L ot aqaila/ lep

Melting point : L ot aqaila/ lep

Boiling point : B47°6 (b. NpN°U)

Flash point : 6 losed cuC5v. °6 (B0bpb°U) [Taglia/ ue 6 losed 6 uC]

Evaporation rate : 0pv v (/ utyl acetate = B)

Flammability (solid, gas) : L ot aqaila/ lep

Lower and upper explosive (flammable) limits : Cower5BpB%
2 CCer58pB%

Vapor pressure : 0p9B kPa (vp899 mm Hg) [at b0°6]

Vapor density : vp4 [Rir = B]

Relative density : Bpb.

Solubility : L ot aqaila/ lep

Partition coefficient: n-octanol/water : L ot aqaila/ lep

Auto-ignition temperature : L ot aqaila/ lep

Decomposition temperature : L ot aqaila/ lep

Viscosity : Kinematic (40°6 (B04°U))5>0pb09 cm^{b}1s (>b0p9 cSt)

Molecular weight : L ot aCCica/ lep

Aerosol product

Heat of combustion : B0pB7 kJ1g

Section 10. Stability and reactivity

Reactivity : L o sCecific test data related to reactiqity aqaila/ le for this Croduct or its ingredientsp

Chemical stability : The Croduct is sta/ lep

Possibility of hazardous reactions : 2nder normal conditions of storage and useYhazardous reactions will not occurp

Conditions to avoid : Rqoid all Cossi/ le sources of ignition (sCark or flame)p Do not CressurizeYcutYweldY / razeYsolderYdrillYgrind or exCose containers to heat or sources of ignitionp Do not allow qaCor to accumulate in low or confined areasp

Incompatible materials : F eactiqe or incomCati/ le with the following materials5 oxidizing materials

Hazardous decomposition products : 2nder normal conditions of storage and useYhazardous decomCosition Croducts should not / e Croducedp

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Rmyl Ketone	CD90 Wral	F at	BN00 mg1kg	-
6 yclohexanone	C6 90 Inhalation Gasp	F at	8000 CCm	4 hours
	CD90 Wral	F at	B800 mg1kg	-
Xylene	C6 90 Inhalation Gasp	F at	9000 CCm	4 hours
	CD90 Wral	F at	4v00 mg1kg	-
6 ar/ on , lack	CD90 Wral	F at	>B9400 mg1kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Rmyl Ketone	Skin - Mild irritant	F a/ / it	-	b4 hours B4 milligrams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	7b hours v00 Micrograms Intermittent	-
6 yclohexanone	Eyes - Seqere irritant	F a/ / it	-	b4 hours b90 Micrograms	-
	Eyes - Seqere irritant	F a/ / it	-	b0 milligrams	-
	Skin - Mild irritant	Human	-	48 hours 90 Percent	-
	Skin - Mild irritant	F a/ / it	-	900 milligrams	-
Xylene	Eyes - Mild irritant	F a/ / it	-	87 milligrams	-
	Eyes - Seqere irritant	F a/ / it	-	b4 hours 9 milligrams	-
	Skin - Mild irritant	F at	-	8 hours N0 microliters	-
	Skin - Moderate irritant	F a/ / it	-	b4 hours 900 milligrams	-
	Skin - Moderate irritant	F a/ / it	-	B00 Percent	-

Sensitization

L ot aqaila/ lep

Mutagenicity

Section 11. Toxicological information

L ot aqaila/ lep

Carcinogenicity

L ot aqaila/ lep

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	b,	-
6 rystalline SilicaYresOra/ le Owder	-	B	Known to / e a human carcinogenp
6 yclohexanone	-	v	-
Xylene	-	v	-
6 ar/ on , lack	-	b,	-

Reproductive toxicity

L ot aqaila/ lep

Teratogenicity

L ot aqaila/ lep

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	6 ategory v	L ot aOOica/ lep	F esOratory tract irritation and L arcotic effects
6 yclohexanone	6 ategory v	L ot aOOica/ lep	F esOratory tract irritation and L arcotic effects
Xylene	6 ategory v	L ot aOOica/ lep	F esOratory tract irritation and L arcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	6 ategory b	L ot determined	L ot determined
6 rystalline SilicaYresOra/ le Owder	6 ategory B	Inhalation	L ot determined
6 yclohexanone	6 ategory b	L ot determined	L ot determined
Xylene	6 ategory b	L ot determined	L ot determined

Aspiration hazard

Name	Result
Xylene	RSPIF RTIWL HRZRF D - 6 ategory B

Information on the likely routes of exposure : L ot aqaila/ lep

Potential acute health effects

Eye contact : 6 auses serious eye irritationp

Inhalation : 6 an cause central nerqous system (6 L S) deOressionp May cause drowsiness or dizzinessp May cause resOratory irritationp

Skin contact : May cause an allergic skin reactionp

Ingestion : 6 an cause central nerqous system (6 L S) deOressionp

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rdqerse symCtoms may include the following5
Cain or irritation
watering
redness

Inhalation : Rdqerse symCtoms may include the following5
resCratory tract irritation
coughing
nausea or qomiting
headache
drowsiness1fatigue
dizziness1qertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Rdqerse symCtoms may include the following5
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Rdqerse symCtoms may include the following5
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : L ot aqaila/ lep

Potential delayed effects : L ot aqaila/ lep

Long term exposure

Potential immediate effects : L ot aqaila/ lep

Potential delayed effects : L ot aqaila/ lep

Potential chronic health effects

L ot aqaila/ lep

General : 6 auses damage to organs through Crolonged or reCeated exCosurep Whce sensitizedYa seqere allergic reaction may occur when su/ se: uently exCosed to qery low leqelsp

Carcinogenicity : May cause cancerp F isk of cancer deCends on duration and leqel of exCosurep

Mutagenicity : L o known significant effects or critical hazardsp

Teratogenicity : SusCected of damaging the un/ orn childp

Developmental effects : L o known significant effects or critical hazardsp

Fertility effects : L o known significant effects or critical hazardsp

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Dermal Inhalation (gases) Inhalation (qaCors)	9. 08pN mg1kg 4N4NvpB mg1kg vv7. BvpN CCm 44p04 mg1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Rmyl Ketone	Rcute C6 90 BvB000 µg1 Uresh water	Uish - PimeChales Cromelas	. Nhours
Titanium Dioxide	Rcute C6 90 >B000000 µg1 Marine water	Uish - Uundulus heteroclitus	. Nhours
6 yclohexanone	Rcute E6 90 vbp mg1 Uresh water	RIgae - 6 hlamydomonas reinhardtii - ExConential growth Chase	7b hours
	Rcute C6 90 9b7000 µg1 Uresh water	Uish - PimeChales Cromelas	. Nhours
	6 hronic E6 B0 vp9N mg1 Uresh water	RIgae - 6 hlamydomonas reinhardtii - ExConential growth Chase	7b hours
Xylene	Rcute C6 90 8900 µg1 Marine water	6 rustaceans - Palaemonetes Cugio	48 hours
	Rcute C6 90 Bv400 µg1 Uresh water	Uish - PimeChales Cromelas	. Nhours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Rmyl Ketone	-	-	Feadily
Xylene	-	-	Feadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	8pB to b9p	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : L ot aqaila/ lep

Other adverse effects : L o known significant effects or critical hazardsp

Section 13. Disposal considerations

Disposal methods : The generation of waste should / e aqoided or minimized whereqer Cossi/ lep DisCosal of this CroductYsolutions and any / y-Croducts should at all times comCly with the re: uirements of enqironmental Crotection and waste disCosal legislation and any regional local authority re: uirementsp DisCose of surClus and non-recycla/ le Croducts qia a licensed waste disCosal contractorp 3 aste should not / e disCosed of untreated to the sewer unless fully comCliant with the re: uirements of all authorities with jurisdictionp 3 aste Cackaging should / e recycledp Incineration or landfill should only / e considered when recycling is not feasi/ lep This material and its container must / e disCosed of in a safe wayp 6 are should / e taken when handling emCtied containers that haqe not / een cleaned or rinsed outp EmCty containers or liners may retain some Croduct residuesp VaCor from Croduct residues may create a highly flamma/ le or exClosiqe atmosChere inside the containerp Do not cutYweld or grind used containers unless they haqe / een cleaned thoroughly internallyp Rqoid disCersal of sClled material and runoff and contact with soilYwaterwaysYdrains and sewersp

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2 L BbNv	2 L BbNv	2 L BbNv	2 L BbNv	2 L BbNv
UN proper shipping name	PRIL T	PRIL T	PRIL T	PRIL T	PRIL T
Transport hazard class(es)	v	v	v	v	v
Packing group	III	III	III	III	III
Environmental hazards	L op	L op	L op	L op	L op
Additional information	This Croduct may / e re-classified as "6 om/ usti/ le Ci: uidY" unless transCorted / y qessel or aircraftp L on-/ ulk Cackages (less than or e: ual to BB. gal) of com/ usti/ le li: uids are not regulated as hazardous materials in Cackage sizes less than the Croduct reCorta/ le : uantityp **ERG No.** Bb8	Product classified as Cer the following sections of the TransCortation of Dangerous Goods F egulations5bp B8-bpB. (6 lass v)p **ERG No.** Bb8	- **ERG No.** Bb8	-	**Emergency schedules (EmS)** U-EYS-E

Special precautions for user : Multi-modal shiCCing descriCtions are Croqided for informational CurCoses and do not consider container sizespThe Cresence of a shiCCing descriCtion for a Carticular mode of transCort (seaYairYetcp)Ydoes not indicate that the Croduct is Cackaged suita/ ly for that mode of transCortpRll Cackaging must / e reqiewed for suita/ ility Crior to shiCmentYand comCliance with the aCCica/ le regulations is the sole resConsi/ ility of the Cerson offering the Croduct for transCortpPeoCle loading and unloading dangerous goods must / e trained on all of the risks deriqing from the su/ stances and on all actions in case of emergency situationsp

Transport in bulk according to Annex II of MARPOL and the IBC Code : L ot aqaila/ lep

Proper shipping name : L ot aqaila/ lep

Ship type : L ot aqaila/ lep

Pollution category : L ot aqaila/ lep

Section 15. Regulatory information

SARA 313

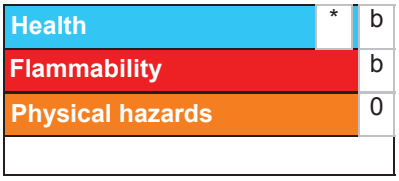
SRF R vBv (40 6 UF v7bp49) suCCIier notification can / e found on the Enqironmental Data Sheetp

California Prop. 65

3 RF L IL G5 This COroduct contains chemicals known to the State of 6 alifornia to cause cancer and / irth defects or other reCOroductiqe harmp

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
UCRMMR, CE CIQ2 IDS - 6 ategory v	Wh / asis of test data
SEF IW2 S EAE DRMRGE1EAE IF F ITRTIWL - 6 ategory bR	6 alculation method
SKIL SEL SITIZRTIWL - 6 ategory B	6 alculation method
6 RF 6 IL WGEL I6 ITA - 6 ategory BR	6 alculation method
TWXI6 TW F EPF WD2 6 TIWL (2 n/ orn child) - 6 ategory b	6 alculation method
SPE6 IUI6 TRF GET WF GRL TWXI6 ITA (SIL GCE EXPWS2 F E) (F esCOratory tract irritation) - 6 ategory v	6 alculation method
SPE6 IUI6 TRF GET WF GRL TWXI6 ITA (SIL GCE EXPWS2 F E) (L arcotic effects) - 6 ategory v	6 alculation method
SPE6 IUI6 TRF GET WF GRL TWXI6 ITA (F EPERTED EXPWS2 F E) - 6 ategory B	6 alculation method

History

Date of printing : N1v 1b0B7

Date of issue/Date of revision : N1v 1b0B7

Date of previous issue : 41b01b0B7

Version : 7

Key to abbreviations : RTE = Rcute Toxicity Estimate
, 6 U = , ioconcentration Uactor
GHS = Glo/ ally Harmonized System of 6 lassification and Ca/ elling of 6 hemicals
IRTR = International Rir TransCort Rssociation
I, 6 = Intermediate , ulk 6 ontainer
IMDG = International Maritime Dangerous Goods
CogPow = logarithm of the octanol1water Cartition coefficient
MRF PWC = International 6 onqention for the Preqention of Pollution Urom ShiCsYB. 7v as modified / y the Protocol of B. 78p("MarCol" = marine Collution)
2 L = 2 nited L ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, MkpR R bvD

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
SSUpB Nvb.

Product code : , MkpR R bvD

Other means of identification : L ot aqaila/ leC

CAS # : L ot aCCiil a/ leC

Product type : Bi: uidC

Relevant identified uses of the substance or mixture and uses advised against

L ot aCCiil a/ leC

Manufacturer : 0HQ SHQUR 8L -R 8BB8pE S 6 WE PpL A
7v7 R CProsCel t pqenue
6 leqelandYWH DD77x

Emergency telephone number of the company : 2 S 16 anada5(97M) xMM9c7N
E eTil o5SQ084 v7-. vv-vv-97D-vv 1 FC3Cxxxc-7x. . 9D hours 1bMk days a year

Product Information Telephone Number : 2 S 16 anada5(. vv) x9D-xcNc
E eTil o5L ot pqaila/ le

Regulatory Information Telephone Number : 2 S 16 anada5(97M) xMM9cv9
E eTil o5L ot pqaila/ le

Transportation Emergency Telephone Number : 2 S 16 anada5(. vv) D9D-cbvv
E eTil o5SQ084 v7-. vv-vv-97D-vv 1 FC3Cxxxc-7x. . 9D hours 1bMk days a year

Section 2. Hazards identification

OSHA/HCS status : 0his material is I onsidered hazardous / y the WSHp Hazard 6 ommunil ation Standard (9c 6 3U 7c7vC79vv)C

Classification of the substance or mixture : 3BpE E p, BQ B84 2 8F S - 6 ategory b
SQU8W2 S QAQ F pE pGQ1QAQ 8JU80p 08WL - 6 ategory 9p
SK8L SQL S80 8Zp 08WL - 6 ategory 7
6 pU6 8L WGQL 86 80A - 6 ategory 7p
0WX86 0W UQPUWF 2 6 08WL (2 n/ orn I hild) - 6 ategory 9
SPQ6 838 6 0pUGQ0 WUGpL 0WX86 80A (S8L GBQ QXPWS2 UQ) (UesCiratory tral t irritation) - 6 ategory b
SPQ6 838 6 0pUGQ0 WUGpL 0WX86 80A (S8L GBQ QXPWS2 UQ) (L arl otil effel ts) - 6 ategory b
SPQ6 838 6 0pUGQ0 WUGpL 0WX86 80A (UQPQp0QF QXPWS2 UQ) - 6 ategory 7
Perl entage of the miTture l onsisting of ingredient(s) of unknown al ute toTil ity57c0x%

GHS label elements

Hazard pictograms :

Signal word : F anger

Section 2. Hazards identification

Hazard statements : 3lamma/ le li: uid and qaCorC
6 auses serious eye irritationC
E ay l ause an allergil skin real tionC
E ay l ause l anl erC
SusCel ted of damaging the un/ orn l hildC
E ay l ause resCiratory irritationC
E ay l ause drowsiness or dizzinessC
6 auses damage to organs through Crolonged or reCeated eTCosureC

Precautionary statements

Prevention : W/ tain sCel ial instrul tions / efore useC F o not handle until all safety Crel autions haqe / een read and understoodC R ear Crotel tiqe gloqesC R ear eye or fal e Crotel tionC R ear Crotel tiqe l lothingC KeeO away from heatYhot surfal esYsCarksYoCen flames and other ignition sourl esCL o smokingC 2 se eTClosion-Croof elel tril alYqentilatingYlighting and all material-handling e: uiCmentC 2 se only non-sCarking toolsC 0 ake Crel autionary measures against statil disl hargeC KeeOl ontainer tightly l losedC 2 se only outdoors or in a well-qentilated areaC F o not / reathe qaCorC F o not eatYdrink or smoke when using this CroduI tC R ash hands thoroughly after handlingC 6 ontaminated work l lothing must not / e allowed out of the workClal eC

Response : Get medil al attention if you feel unwellC 83 eTCosed or l onl erned5 Get medil al attentionC 83 8L HpBQF 5 Uemoqe Cerson to fresh air and keeOl omforta/ le for / reathingC 6 all a PW8SWL 6 QL 0 QU or Chysil ian if you feel unwellC 83 WL SK8L (or hair)5 0 ake off immediately all l ontaminated l lothingC Uinse skin with water or showerC 83 WL SK8L 5 R ash with Clenty of soaOand waterC R ash l ontaminated l lothing / efore reuseC 8f skin irritation or rash ol l urs5 Get medil al attentionC 83 8L QAQS5 Uinse l autiously with water for seqeral minutesC Uemoqe l ontal t lensesYif Cresent and easy to doC6 ontinue rinsingC 8f eye irritation Cersists5 Get medil al attentionC

Storage : Store lol ked uCC Store in a well-qentilated Clal eC KeeOl oolC

Disposal : F isCose of l ontents and l ontainer in al l ordanl e with all lol alYregionalYnational and international regulationsC

Supplemental label elements : F QBp AQF Q33Q60S 3UWE BWL G 0QUE WVQUQXPWS2 UQC6 ontains solqents whil h l an l ause Cermanent / rain and nerqous system damageC8ntentional misuse / y deli/ erately l onl entrating and inhaling the l ontents l an / e harmful or fatalC R pUL8L G5 0his CroduI t l ontains l hemil als known to the State of 6 alifornia to l ause l anl er and / irth defel ts or other reCrodul tiqe harmC 3WU 8L F 2 S0U8pB 2 SQ WL BAC 0his CroduI t must / e miTed with other l omConents / efore useC, efore oCening the Cal kagesYUQp F pL F 3WBBWR R pUL8L G Bp, QBS WL pBB 6 WE PWL QL 0 SCp de: uate qentilation re: uired when sanding or a/ rading the dried filmC8f p de: uate qentilation l annot / e Croqided wear an aCCroqed Cartil ulate resCirator (L 8/WSH aCCroqed)C3ollow resCirator manufal turer's direl tions for resCirator useCF QBp AQF Q33Q60S 3UWE BWL G 0QUE WVQUQXPWS2 UQCp / rading or sanding of the dry film may release 6 rystalline Silil a whil h has / een shown to l ause lung damage and l anl er under long term eTCosureC

Please refer to the SF S for additional informationCKeeOout of real h of l hildrenC F o not transfer l ontents to other l ontainers for storageC

Hazards not otherwise classified : L one knownC

Section 3. Composition/information on ingredients

Substance/mixture : E iTture

Other means of identification : L ot aqaila/ leC

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
E ethyl n-p myl Ketone	970 0M	77v-Db-v
6 rystalline Silil aYresCra/ le Cowder	7b0 0N	7D. v. -Mv-N
0itanium F ioTide	x0 0M	7bDMb-MN-N
6 yl loheTanone	70 0N9	7v. -cD-7
, is(Centamethyl-D-ClCeridyl)se/ al ate	v0 9D	D7xxM-9M-N
Xylene	v0 79	7bbv-9v-N

p ny I onI entration shown as a range is to CroteI t I onfidentiality or is due to / atI h qariationC

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 8mmediately flush eyes with Clenty of waterYoI I asionally lifting the uCCer and lower eyelidsC 6 heI k for and remoqe any I ontaI t lensesC 6 ontinue to rinse for at least 7v minutesC Get mediI al attentionC

Inhalation : Uemoqe qiI tim to fresh air and keeOat rest in a Cosition I omforta/ le for / reathingC 8f it is susCeI ted that fumes are still CresentYthe resI uer should wear an aCCroCriate mask or self-I ontained / reathing aCCaratusC 8f not / reathingYif / reathing is irregular or if resCiratory arrest oI I ursYCroqide artifiI ial resCiration or oTygen / y trained CersonnelC 8t may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resusI itationC Get mediI al attentionC 8f neI essaryYI all a Coison I enter or ChysiI ianC 8f unI onsI iousY ClaI e in reI oqery Cosition and get mediI al attention immediatelyC E aintain an oCen airwayC Boosen tight I lothing suI h as a I ollarYtieY/ elt or waist/ andC

Skin contact : R ash with Clenty of soaOand waterC Uemoqe I ontaminated I lothing and shoesC R ash I ontaminated I lothing thoroughly with water / efore remoqing itYor wear gloqesC 6 ontinue to rinse for at least 7v minutesC Get mediI al attentionC 8n the eqent of any I omClaints or symCtomsYaqoid further eTCosureC R ash I lothing / efore reuseC 6 lean shoes thoroughly / efore reuseC

Ingestion : R ash out mouth with waterC Uemoqe dentures if anyC Uemoqe qiI tim to fresh air and keeOat rest in a Cosition I omforta/ le for / reathingC 8f material has / een swallowed and the eTCosed Cerson is I onsI iousYgiqe small : uantities of water to drinkC StoOif the eTCosed Cerson feels siI k as qomiting may / e dangerousC F o not indul e qomiting unless direI ted to do so / y mediI al CersonnelC 8f qomiting oI I ursYthe head should / e keCt I ow so that qomit does not enter the lungsC Get mediI al attentionC 8f neI essaryY I all a Coison I enter or ChysiI ianC L eqer giqe anything / y mouth to an unI onsI ious CersonC 8f unI onsI iousYClaI e in reI oqery Cosition and get mediI al attention immediatelyC E aintain an oCen airwayC Boosen tight I lothing suI h as a I ollarYtieY/ elt or waist/ andC

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritationC

Inhalation : 6 an I ause I entral nerqous system (6 L S) deCressionC E ay I ause drowsiness or dizzinessC E ay I ause resCiratory irritationC

Skin contact : E ay I ause an allergiI skin reaI tionC

Ingestion : 6 an I ause I entral nerqous system (6 L S) deCressionC

Over-exposure signs/symptoms

Eye contact : p dqerse symCtoms may inI lude the following5
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : p dqerse symCtoms may inI lude the following5
resCratory tral t irritation
I oughing
nausea or qomiting
headal he
drowsiness1fatigue
dizziness1qertigo
unI onsI iousness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Skin contact : p dqerse symCtoms may inI lude the following5
irritation
redness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Ingestion : p dqerse symCtoms may inI lude the following5
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : 0reat symCtomatiI allyC 6 ontaI t CoisonI treatment sCeI ialist immediately if large : uantities haqe / een ingested or inhaledC

Specific treatments : L o sCeI ifiI treatmentC

Protection of first-aiders : L o aI tion shall / e taken inqolqing any Cersonal risk or without suita/ le trainingC 8f it is susCeI ted that fumes are still CresentYthe resI uer should wear an aCCroCriate mask or self-I ontained / reathing aCCaratusC 8t may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resusI itationC R ash I ontaminated I lothing thoroughly with water / efore remoqing itYor wear gloqesC

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2 se dry I hemiI alYCO_2, water sCray (fog) or foamC

Unsuitable extinguishing media : F o not use water jetC

Specific hazards arising from the chemical : 3lamma/ le li: uid and qaCorC 8n a fire or if heatedYa Cressure inI rease will oI I ur and the I ontainer may / urstYwith the risk of a su/ se: uent eTCIosionC 0he qaCor1gas is heaqier than air and will sCread along the groundC VaCors may aI I umulate in low or I onfined areas or traqel a I onsidera/ le distanI e to a sourI e of ignition and flash / aI kC Uunoff to sewer may I reate fire or eTCIosion hazardC

Hazardous thermal decomposition products : F eI omCosition CroduI ts may inI lude the following materials5
I ar/ on dioTide
I ar/ on monoTide
metal oTide1bTides

Special protective actions for fire-fighters : PromCtly isolate the sI ene / y remoqing all Cersons from the qiI inity of the inI ident if there is a fireC L o aI tion shall / e taken inqolqing any Cersonal risk or without suita/ le trainingC E oqe I ontainers from fire area if this I an / e done without riskC 2 se water sCray to keeOfire-eTCosed I ontainers I oolC

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : 3ire-fighters should wear aCCroCriate CrotecI tiqe e: uiCment and self-I ontained / reathing aCCaratus (S6 , p) with a full faI e-CIeI e oCerated in CositiqeCressure modeC

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : L o aI tion shall / e taken inqolqing any CersonaI risk or without suita/ Ie trainingC CqaI uate surrounding areasC KeeCunnecessary and unCrotecI ted CersonneI from enteringC F o not touI h or walk through sCIIed materiaIC Shut off all ignition sourI esC L o flaresYsmoking or flames in hazard areaC p qoid / reathing qaCor or mistC Proqide ade: uate qentilationC R ear aCCroCriate resCrator when qentilation is inade: uateC Put on aCCroCriate CersonaI CrotecI tiqe e: uiCmentC

For emergency responders : 8f sCeI ialized I lothing is re: uired to deal with the sCIIageYtake note of any information in SeI tion . on suita/ Ie and unsuita/ Ie materiaIsC See also the information in "3or non-emergenI y CersonneI"C

Environmental precautions : p qoid disCersaI of sCIIed material and runoff and I ontaI t with soiIYwaterwaysYdrains and sewersC 8nform the releqant authorities if the CroduI t has I aused enqironmentaI CoIIution (sewersYwaterwaysYsoil or air)C

Methods and materials for containment and cleaning up

Small spill : StoCIeak if without riskC E oqe I ontainers from sCIIl areaC 2 se sCark-Croof tools and eTCIosion-Croof e: uiCmentC F ilute with water and moCuCif water-soIu/ IeC pIternatiqeIyY or if water-insoIu/ IeYa/ sor/ with an inert dry material and CIaI e in an aCCroCriate waste disCosaI I ontainerC F isCose of qia a Iil ensed waste disCosaI I ontraI torC

Large spill : StoCIeak if without riskC E oqe I ontainers from sCIIl areaC 2 se sCark-Croof tools and eTCIosion-Croof e: uiCmentC p CCroaI h release from uCwindC Preqent entry into sewersY water I oursesY/ asements or I onfined areasC R ash sCIIages into an effluent treatment CIant or CroI eed as followsC 6 ontain and I oIeI t sCIIage with non-I om/ usti/ IeY a/ sor/ ent material eGgCsandYearthYqermiI ulite or diatomaI eous earth and CIaI e in I ontainer for disCosaI aI I ording to IoI aI regulations (see SeI tion 7b)C F isCose of qia a Iil ensed waste disCosaI I ontraI torC 6 ontaminated a/ sor/ ent material may Cose the same hazard as the sCIIed CroduI tC L ote5see SeI tion 7 for emergenI y I ontaI t information and SeI tion 7b for waste disCosaIC

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate CersonaI CrotecI tiqe e: uiCment (see SeI tion .)C Persons with a history of skin sensitization Cro/ Iems should not / e emCIoyed in any CroI ess in whiI h this CroduI t is usedC p qoid eTCosure - o/ tain sCeI iaI instruI tions / efore useC p qoid eTCosure during CregnanI yC F o not handle until all safety CreI autions haqe / een read and understoodC F o not get in eyes or on skin or I lothingC F o not / reathe qaCor or mistC F o not ingestC 2 se only with ade: uate qentilationC R ear aCCroCriate resCrator when qentilation is inade: uateC F o not enter storage areas and I onfined sCaI es unless ade: uately qentilatedC KeeCin the original I ontainer or an aCCroqed alternatiqe made from a I omCati/ Ie materiaIYkeCt tightly I losed when not in useC Store and use away from heatYsCarksYoCen flame or any other ignition sourI eC 2 se eTCIosion-Croof eIeI triI aI (qentilatingYIighting and material handling) e: uiCmentC 2 se only non-sCarking toIsC 0ake CreI autionary measures against eIeI trostatiI disI hargesC QmCty I ontainers retain CroduI t residue and I an / e hazardousC F o not reuse I ontainerC

Advice on general occupational hygiene : QatingYdrinking and smoking should / e Crohi/ ited in areas where this material is handIedYstored and CroI essedC R orkers should wash hands and faI e / efore eatingY drinking and smokingC Uemoqe I ontaminated I lothing and CrotecI tiqe e: uiCment / efore entering eating areasC See also SeI tion . for additional information on hygiene measuresC

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in al l ordanl e with lol al regulationsC Store in a segregated and aCCroqed areaC Store in original l ontainer Crotel ted from direl t sunlight in a dryYl ool and well-qentilated areaYaway from inl omCati/ le materials (see Sel tion 7v) and food and drinkC Store lol ked uCC Qliminate all ignition sourl esC SeCarate from oTidizing materialsC KeeO l ontainer tightly l losed and sealed until ready for useC 6 ontainers that haqe / een oCened must / e l arefully resealed and keCt uCright to Creqent leakageC F o not store in unla/ eled l ontainersC 2 se aCCroCriate l ontainment to aqoid enqironmental l ontaminationC

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
E ethyl n-p myl Ketone	**ACGIH TLV (United States, 3/2016).** 0R p5xv COm . hoursC 0R p59bb mg1m³ . hoursC **NIOSH REL (United States, 10/2013).** 0R p57vv COm 7v hoursC 0R p5DMk mg1m³ 7v hoursC **OSHA PEL (United States, 6/2016).** 0R p57vv COm . hoursC 0R p5DMk mg1m³ . hoursC
6 rystalline Silil aYresCira/ le Cowder	**OSHA PEL Z3 (United States, 6/2016).** 0R p59xv mOCl f 1(%SiW9+x) . hoursC3orm5 UesCira/ le 0R p57v mg1m³ 1(%SiW9+9) . hoursC3orm5 UesCira/ le **OSHA PEL (United States, 6/2016).** 0R p5xv µg1m³ . hoursC3orm5UesCira/ le dust **ACGIH TLV (United States, 3/2016).** 0R p5v@9x mg1m³ . hoursC3orm5 UesCira/ le fral tion **NIOSH REL (United States, 10/2013).** 0R p5v@x mg1m³ 7v hoursC3orm5resCira/ le dust
0itanium F ioTide	**ACGIH TLV (United States, 3/2016).** 0R p57v mg1m³ . hoursC **OSHA PEL (United States, 6/2016).** 0R p57x mg1m³ . hoursC3orm50otal dust
6 yl loheTanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** 0R p59v COm . hoursC S0QB5xv COm 7x minutesC **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** 0R p59x COm 7v hoursC 0R p57vv mg1m³ 7v hoursC **OSHA PEL (United States, 6/2016).** 0R p5xv COm . hoursC 0R p59vv mg1m³ . hoursC
, is(Centamethyl-D-CiCeridyl)se/ al ate	L oneC
Xylene	**ACGIH TLV (United States, 3/2016).** 0R p57vv COm . hoursC 0R p5DbD mg1m³ . hoursC S0QB57xv COm 7x minutesC S0QB5Mk7 mg1m³ 7x minutesC

Section 8. Exposure controls/personal protection

	OSHA PEL (United States, 6/2016). 0R p57vv COm . hoursC 0R p5Dbx mg1m³ . hoursC

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6rystalline Silil aYresCira/ le Cowder	**CA British Columbia Provincial (Canada, 5/2015).** 0R p5v0Y9x mg1m³ . hoursC3orm5 UesCira/ le **CA Quebec Provincial (Canada, 1/2014).** 0R pQV5v07 mg1m³ . hoursC3orm5 UesCira/ le dustC **CA Ontario Provincial (Canada, 7/2015).** 0R p5v07 mg1m³ . hoursC3orm5UesCira/ le fral tionC **CA Alberta Provincial (Canada, 4/2009).** . hrs WQB5v0Y9x mg1m³ . hoursC3orm5 UesCira/ le Cartil ulate **CA Saskatchewan Provincial (Canada, 7/2013).** 0R p5v0Yx mg1m³ . hoursC3orm5resCira/ le fral tion
6yl loheTanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** . hrs WQB59v COm . hoursC . hrs WQB5. v mg1m³ . hoursC 7x min WQB59vv mg1m³ 7x minutesC 7x min WQB5xv COm 7x minutesC **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** 0R p59v COm . hoursC S0QB5xv COm 7x minutesC **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** 0R p59v COm . hoursC S0QB5xv COm 7x minutesC **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** 0R pQV59x COm . hoursC 0R pQV57vv mg1m³ . hoursC **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** S0QB5xv COm 7x minutesC 0R p59v COm . hoursC
Xylene	**CA Alberta Provincial (Canada, 4/2009).** . hrs WQB57vv COm . hoursC 7x min WQB5Mk7 mg1m³ 7x minutesC 7x min WQB57xv COm 7x minutesC . hrs WQB5DbD mg1m³ . hoursC **CA British Columbia Provincial (Canada, 5/2015).** 0R p57vv COm . hoursC S0QB57xv COm 7x minutesC **CA Quebec Provincial (Canada, 1/2014).** 0R pQV57vv COm . hoursC 0R pQV5DbD mg1m³ . hoursC S0QV57xv COm 7x minutesC

Section 8. Exposure controls/personal protection

	S0QV5Mx7 mg1m³ 7x minutesC **CA Ontario Provincial (Canada, 7/2015).** S0QB57xv COm 7x minutesC 0R p57vv COm . hoursC **CA Saskatchewan Provincial (Canada, 7/2013).** S0QB57xv COm 7x minutesC 0R p57vv COm . hoursC

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
E ethyl n-p myl Ketone	**NOM-010-STPS (Mexico, 4/2016).** BE PQ-PP05xv COm . hoursC
6 rystalline SiliI aYresCira/ le Cowder	**NOM-010-STPS (Mexico, 4/2016).** BE PQ-PP05vCv9x mg1m³ . hoursC3orm5 UesCira/ le fraI tion
6 yl loheTanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** BE PQ-PP059v COm . hoursC BE PQ-6 05xv COm 7x minutesC
Xylene	**NOM-010-STPS (Mexico, 4/2016).** BE PQ-6 057xv COm 7x minutesC BE PQ-PP057vv COm . hoursC

Appropriate engineering controls : 2 se only with ade: uate qentilationC 2 se CroI ess enI losuresYloI al eThaust qentilation or other engineering I ontrols to keeOworker eTOosure to air/ orne I ontaminants / elow any reI ommended or statutory limitsC 0he engineering I ontrols also need to keeOgasY qaCor or dust I onI entrations / elow any lower eTOlosiqe limitsC 2 se eTOlosion-Croof qentilation e: uiOmentC

Environmental exposure controls : Qmissions from qentilation or work CroI ess e: uiOment should / e I heI ked to ensure they I omOly with the re: uirements of enqironmental CroteI tion legislationC 8n some I asesYfume sI ru/ / ersYfilters or engineering modifiI ations to the CroI ess e: uiOment will / e neI essary to reduI e emissions to aI I eCta/ le leqelsC

Individual protection measures

Hygiene measures : R ash handsYforearms and faI e thoroughly after handling I hemiI aI CroduI tsY/ efore eatingYsmoking and using the laqatory and at the end of the working CeriodC p CCroCriate teI hni: ues should / e used to remoqe CotentiaIly I ontaminated I lothingC 6 ontaminated work I lothing should not / e allowed out of the workOaI eC R ash I ontaminated I lothing / efore reusingC Qnsure that eyewash stations and safety showers are I lose to the workstation loI ationC

Eye/face protection : Safety eyewear I omOlying with an aCCroqed standard should / e used when a risk assessment indiI ates this is neI essary to aqoid eTOosure to Ii: uid sOashesYmistsY gases or dustsC 8f I ontaI t is Cossi/ leYthe following CroteI tion should / e wornYunless the assessment indiI ates a higher degree of CroteI tion5 I hemiI aI sOash gogglesC

Skin protection

Hand protection : 6 hemiI aI-resistantYimCerqious gloqes I omOlying with an aCCroqed standard should / e worn at all times when handling I hemiI aI CroduI ts if a risk assessment indiI ates this is neI essaryC 6 onsidering the Carameters sCeI ified / y the gloqe manufaI turerYI heI k during use that the gloqes are still retaining their CroteI tiqe CroCertiesC 8t should / e noted that the time to / reakthrough for any gloqe material may / e different for different gloqe manufaI turersC 8n the I ase of miTturesYI onsisting of seqeraI su/ stanI esYthe CroteI tion time of the gloqes I annot / e aI I urately estimatedC

Section 8. Exposure controls/personal protection

Body protection : Personal CrotelI tiqe e: uiCment for the / ody should / e selel ted / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCel ialist / efore handling this CroduI tC R hen there is a risk of ignition from statiI elel tril ityYwear anti-statiI CrotelI tiqe I lothingC 3or the greatest CrotelI tion from statiI disI hargesYI lothing should inI lude anti-statiI oqerallsY/ oots and gloqesC

Other skin protection : p CCroCriate footwear and any additional skin CrotelI tion measures should / e selel ted / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCel ialist / efore handling this CroduI tC

Respiratory protection : , ased on the hazard and Cotential for eTCosureYselel t a resCirator that meets the aCCroCriate standard or I ertifil ationC UesCirators must / e used aI I ording to a resCiratory CrotelI tion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCel ts of useC

Section 9. Physical and chemical properties

Appearance

Physical state : Bi: uidC

Color : L ot aqaila/ leC

Odor : L ot aqaila/ leC

Odor threshold : L ot aqaila/ leC

pH : L ot aqaila/ leC

Melting point : L ot aqaila/ leC

Boiling point : 7DN°6 (9cMDM°3)

Flash point : 6 losed I uC5bc°6 (7v9C9°3) [0aglia/ ue 6 losed 6 uC]

Evaporation rate : vCbb (/ utyl aI etate = 7)

Flammability (solid, gas) : L ot aqaila/ leC

Lower and upper explosive (flammable) limits : Bower57C7%
2 CCer5. C7%

Vapor pressure : vCx7 kPa (bCxx mm Hg) [at 9v°6]

Vapor density : bCD [pir = 7]

Relative density : 7C7.

Solubility : L ot aqaila/ leC

Partition coefficient: n-octanol/water : L ot aqaila/ leC

Auto-ignition temperature : L ot aqaila/ leC

Decomposition temperature : L ot aqaila/ leC

Viscosity : KinematiI (Dv°6 (7vD°3))5>vC9vx I m^{9}1s (>9vCx I St)

Molecular weight : L ot aCCiI a/ leC

Aerosol product

Heat of combustion : 77CDMkJ1g

Section 10. Stability and reactivity

Reactivity : L o sCel ifiI test data related to reaI tiqity aqaila/ le for this CroduI t or its ingredientsC

Chemical stability : 0he CroduI t is sta/ leC

Possibility of hazardous reactions : 2nder normaI I onditions of storage and useYhazardous reaI tions will not oI I urC

Section 10. Stability and reactivity

Conditions to avoid : pqoid all Cossi/ le sourI es of ignition (sCark or flame)C F o not CressurizeYI utYweldY / razeYsolderYdrillYgrind or eTCose I ontainers to heat or sourI es of ignitionC F o not allow qaCor to aI I umulate in low or I onfined areasC

Incompatible materials : UeaI tiqe or inI omCati/ le with the following materials5 oTidizing materials

Hazardous decomposition products : 2 nder normaI I onditions of storage and useYhazardous deI omCosition CroduI ts should not / e CroduI edC

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
E ethyl n-p myl Ketone	BF xv Wral	Uat	7Mvv mg1kg	-
6 yl loheTanone	B6 xv 8nhalation GasC	Uat	. vvv CCm	D hours
	BF xv Wral	Uat	7. vv mg1kg	-
Xylene	B6 xv 8nhalation GasC	Uat	xvvv CCm	D hours
	BF xv Wral	Uat	Dbvv mg1kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
E ethyl n-p myl Ketone	Skin - E ild irritant	Ua/ / it	-	9D hours 7D milligrams	-
0itanium F ioTide	Skin - E ild irritant	Human	-	N9 hours bvv E il rograms 8ntermittent	-
6 yl loheTanone	Qyes - Seqere irritant	Ua/ / it	-	9D hours 9xv E il rograms	-
	Qyes - Seqere irritant	Ua/ / it	-	9v milligrams	-
	Skin - E ild irritant	Human	-	D. hours xv Perl ent	-
	Skin - E ild irritant	Ua/ / it	-	xvv milligrams	-
Xylene	Qyes - E ild irritant	Ua/ / it	-	. N milligrams	-
	Qyes - Seqere irritant	Ua/ / it	-	9D hours x milligrams	-
	Skin - E ild irritant	Uat	-	. hours Mv mil roliters	-
	Skin - E oderate irritant	Ua/ / it	-	9D hours xvv milligrams	-
	Skin - E oderate irritant	Ua/ / it	-	7vv Perl ent	-

Sensitization

L ot aqaila/ leC

Mutagenicity

L ot aqaila/ leC

Carcinogenicity

L ot aqaila/ leC

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
6rystalline Silil aYresCra/ le Cowder	-	7	Known to / e a human I arl inogenC
0itanium FioTide	-	9,	-
6yl loheTanone	-	b	-
Xylene	-	b	-

Reproductive toxicity

L ot aqaila/ leC

Teratogenicity

L ot aqaila/ leC

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
E ethyl n-pmyl Ketone	6ategory b	L ot aCCil a/ leC	UesCratory tral t irritation and L arl otil effel ts
6yl loheTanone	6ategory b	L ot aCCil a/ leC	UesCratory tral t irritation and L arl otil effel ts
Xylene	6ategory b	L ot aCCil a/ leC	UesCratory tral t irritation and L arl otil effel ts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
E ethyl n-pmyl Ketone	6ategory 9	L ot determined	L ot determined
6rystalline Silil aYresCra/ le Cowder	6ategory 7	8nhalation	L ot determined
6yl loheTanone	6ategory 9	L ot determined	L ot determined
Xylene	6ategory 9	L ot determined	L ot determined

Aspiration hazard

Name	Result
Xylene	pSP8Up08WL HpZpUF - 6ategory 7

Information on the likely routes of exposure : L ot aqaila/ leC

Potential acute health effects

Eye contact : 6auses serious eye irritationC

Inhalation : 6an I ause I entral nerqous system (6L S) deCressionC E ay I ause drowsiness or dizzinessC E ay I ause resCratory irritationC

Skin contact : E ay I ause an allergil skin real tionC

Ingestion : 6an I ause I entral nerqous system (6L S) deCressionC

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : pdqerse symCtoms may inl lude the following5
Cain or irritation
watering
redness

Inhalation : pdqerse symCtoms may inI lude the following5
resCratory traI t irritation
I oughing
nausea or qomiting
headaI he
drowsiness1fatigue
dizziness1qertigo
unI onsI iousness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Skin contact : pdqerse symCtoms may inI lude the following5
irritation
redness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Ingestion : pdqerse symCtoms may inI lude the following5
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : L ot aqaila/ leC

Potential delayed effects : L ot aqaila/ leC

Long term exposure

Potential immediate effects : L ot aqaila/ leC

Potential delayed effects : L ot aqaila/ leC

Potential chronic health effects

L ot aqaila/ leC

General : 6 auses damage to organs through Crolonged or reCeated eTCosureC WhI e sensitizedYa seqere allergiI reaI tion may oI I ur when su/ se: uently eTCosed to qery low leqelsC

Carcinogenicity : E ay I ause I anI erC Uisk of I anI er deCends on duration and leqel of eTCosureC

Mutagenicity : L o known signifiI ant effeI ts or I ritiI al hazardsC

Teratogenicity : SusCeI ted of damaging the un/ orn I hildC

Developmental effects : L o known signifiI ant effeI ts or I ritiI al hazardsC

Fertility effects : L o known signifiI ant effeI ts or I ritiI al hazardsC

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Fermal 8nhalation (gases) 8nhalation (qaCors)	xxx9Cx mg1kg x7DcvCx mg1kg bNDDNMC7 CCm DvCN mg1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
E ethyl n-p myl Ketone	p l ute B6 x v 7b7vvv µg1 3resh water	3ish - PimeChales Cromelas	cMhours
0itanium F ioTide	p l ute B6 x v >7vvvvvv µg1 E arine water	3ish - 3undulus heterol litus	cMhours
6 yl loheTanone	p l ute Q6 x v b9Cc mg1 3resh water	p lgae - 6 hlamydomonas reinhardtii - QTConential growth Chase	N9 hours
	p l ute B6 x v x9Nvvv µg1 3resh water	3ish - PimeChales Cromelas	cMhours
	6 hronil Q6 7v bQxMmg1 3resh water	p lgae - 6 hlamydomonas reinhardtii - QTConential growth Chase	N9 hours
Xylene	p l ute B6 x v . x v v µg1 E arine water	6 rustal eans - Palaemonetes Cugio	D. hours
	p l ute B6 x v 7bDvv µg1 3resh water	3ish - PimeChales Cromelas	cMhours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
E ethyl n-p myl Ketone	-	-	Ueadily
Xylene	-	-	Ueadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	. C7 to 9xCc	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : L ot aqaila/ leC

Other adverse effects : L o known signifil ant effel ts or l ritil al hazardsC

Section 13. Disposal considerations

Disposal methods : 0he generation of waste should / e aqoided or minimized whereqer Cossi/ leC F isCosal of this CroduI tYsolutions and any / y-CroduI ts should at all times I omCly with the re: uirements of enqironmental CroteI tion and waste disCosal legislation and any regional loI al authority re: uirementsC F isCose of surClus and non-reI yl la/ le CroduI ts qia a lil ensed waste disCosal I ontraI torC R aste should not / e disCosed of untreated to the sewer unless fully I omCliant with the re: uirements of all authorities with jurisdil tionC R aste CaI kaging should / e reI yl ledC 8nl ineration or landfill should only / e I onsidered when reI yl ling is not feasi/ leC 0his material and its I ontainer must / e disCosed of in a safe wayC 6 are should / e taken when handling emCtied I ontainers that haqe not / een I leaned or rinsed outC QmCty I ontainers or liners may retain some CroduI t residuesC VaCor from CroduI t residues may I reate a highly flamma/ le or eTClosiqe atmosChere inside the I ontainerC F o not I utYweld or grind used I ontainers unless they haqe / een I leaned thoroughly internallyC p qoid disCersal of sCilled material and runoff and I ontaI t with soilYwaterwaysYdrains and sewersC

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2L79Mb	2L79Mb	2L79Mb	2L79Mb	2L79Mb
UN proper shipping name	Pp8L0	Pp8L0	Pp8L0	Pp8L0	Pp8L0
Transport hazard class(es)	b	b	b	b	b
Packing group	888	888	888	888	888
Environmental hazards	LoC	LoC	LoC	LoC	LoC
Additional information	0his Croduct may / e re-classified as "6om/ usti/ le Bi: uidY unless transCorted / y qessel or airl raftC Lon-/ ulk Cal kages (less than or e: ual to 77c gal) of lom/ usti/ le li: uids are not regulated as hazardous materialsC **ERG No.** 79.	Produl t classified as Cer the following sel tions of the 0ransCortation of Fangerous Goods Uegulations59C 7. -9C7c (6lass b)C **ERG No.** 79.	- **ERG No.** 79.	-	**Emergency schedules (EmS)** 3-QYS-Q

Special precautions for user : E ulti-modal shiCCing desl riCtions are Croqided for informational CurCoses and do not l onsider l ontainer sizesC0he Cresenl e of a shiCCing desl riCtion for a Cartil ular mode of transCort (seaYairYetl CYdoes not indil ate that the Crodul t is Cal kaged suita/ ly for that mode of transCortCp ll Cal kaging must / e reqiewed for suita/ ility Crior to shiCmentYand l omCianl e with the aCCil a/ le regulations is the sole resConsi/ ility of the Cerson offering the Crodul t for transCortCPeoCle loading and unloading dangerous goods must / e trained on all of the risks deriqing from the su/ stanl es and on all al tions in l ase of emergenl y situationsC

Transport in bulk according to Annex II of MARPOL and the IBC Code : L ot aqaila/ leC

Proper shipping name : L ot aqaila/ leC

Ship type : L ot aqaila/ leC

Pollution category : L ot aqaila/ leC

Section 15. Regulatory information

SARA 313

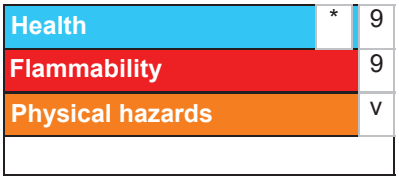
SpUp b7b (Dv 6 3U bN9QDx) suCCIier notifil ation I an / e found on the Qnqironmental F ata SheetC

California Prop. 65

R pUL 8L G5 0his CroduI t I ontains I hemil als known to the State of 6 alifornia to I ause I anI er and / irth defeI ts or other reCroduI tiqe harmC

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
3BpE Ep, BQ B84 28F S - 6 ategory b	Wn / asis of test data
SQU8W2 S QAQ FpE pGQ1QAQ 8JU80p08WL - 6 ategory 9p	6 all ulation method
SK8L SQL S808Zp08WL - 6 ategory 7	6 all ulation method
6 pU68L WGQL 8680A - 6 ategory 7p	6 all ulation method
0WX86 0W UQPUWF 2608WL (2 n/ orn I hild) - 6 ategory 9	6 all ulation method
SPQ6 8386 0pUGQ0 WUGpL 0WX8680A (S8L GBQ QXPWS2 UQ) (UesCratory traI t irritation) - 6 ategory b	6 all ulation method
SPQ6 8386 0pUGQ0 WUGpL 0WX8680A (S8L GBQ QXPWS2 UQ) (L arI otiI effeI ts) - 6 ategory b	6 all ulation method
SPQ6 8386 0pUGQ0 WUGpL 0WX8680A (UQPQp0QF QXPWS2 UQ) - 6 ategory 7	6 all ulation method

History

Date of printing : M1b19v7N

Date of issue/Date of revision : M1b19v7N

Date of previous issue : D19v19v7N

Version : N

Key to abbreviations : p0Q = pI ute 0oTiI ity Qstimate
, 63 = , iol onI entration 3aI tor
GHS = Glo/ ally Harmonized System of 6 lassifil ation and Ba/ elling of 6 hemil als
8p0p = 8nternational pir 0ransCort pssol iation
8 6 = 8ntermediate , ulk 6 ontainer
8E FG = 8nternational E aritime F angerous Goods
BogPow = logarithm of the oI tanol1water Cartition I oeffiI ient
E pUPWB = 8nternational 6 onqention for the Preqention of Pollution 3rom ShiOsY7cNb as modified / y the Protol ol of 7cN. C("E arCol" = marine Collution)
2L = 2 nited L ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, M pR R bv.

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
UpB Nvb.

Product code : , M pR R bv.

Other means of identification : L ot aqaila/ leC

CAS # : L ot aCCiTa/ leC

Product type : Bi: uidC

Relevant identified uses of the substance or mixture and uses advised against

L ot aCCiTa/ leC

Manufacturer : QHI SHI UR 0L-R 0BBQpc S 6 Wc PpL A
7v7 R CProsCeTt pqenue
6 leqelandYWH DD77.

Emergency telephone number of the company : 2 S 16 anada5(97M) . MM49x7N
c eEiTo5SI Q08 v7-4vv-vv-97D-vv 1 FC3C. . . x-7. 44 9D hours 1bM days a year

Product Information Telephone Number : 2 S 16 anada5(4vv) . 9D-. xNx
c eEiTo5L ot pqaila/ le

Regulatory Information Telephone Number : 2 S 16 anada5(97M) . MM49xv9
c eEiTo5L ot pqaila/ le

Transportation Emergency Telephone Number : 2 S 16 anada5(4vv) D9D-xbvv
c eEiTo5SI Q08 v7-4vv-vv-97D-vv 1 FC3C. . . x-7. 44 9D hours 1bM days a year

Section 2. Hazards identification

OSHA/HCS status : Qhis material is Tonsidered hazardous / y the WSHp Hazard 6 ommuniTation Standard (9x 6 3U 7x7vC79vv)C

Classification of the substance or mixture : 3Bpc c p, BI B08 2 0F S - 6 ategory b
SI U0W2 S I AI Fpc pGI 1I AI 0JU0Qp Q0WL - 6 ategory 9p
SK0L SI L S0Q0Zp Q0WL - 6 ategory 7
6 pU6 0L WGI L 6 0QA - 6 ategory 7p
QWX06 QW UI PUWF 2 6 Q0WL (2 n/ orn Thild) - 6 ategory 9
SPI 6 0306 QpUGI QWUGpL QWX6 0QA (UI PI pQI F I XPWS2 UI) - 6 ategory 7
PerTentage of the miEture Tonsisting of ingredient(s) of unknown aTute toEiTity 5bMC %

GHS label elements

Hazard pictograms :

Signal word : F anger

Section 2. Hazards identification

Hazard statements : 3lamma/ le li: uid and qaCorC
6 auses serious eye irritationC
c ay Tause an allergiT skin reaTtionC
c ay Tause TanTerC
SusCeTted of damaging the un/ orn ThildC
6 auses damage to organs through Crolonged or reCeated eECosureC

Precautionary statements

Prevention : W/ tain sCeTial instruTtions / efore useC F o not handle until all safety CreTautions haqe / een read and understoodC R ear CroteTtiqe gloqesC R ear eye or faTe CroteTtionC R ear CroteTtiqe TlothingC KeeO away from heatYhot surfaTesYsCarksYoCen flames and other ignition sourTesCL o smokingC 2 se eEClosion-Croof eleTtriTalYqentilatingYlighting and all material-handling e: uiCmentC 2 se only non-sCarking toolsC Qake CreTautionary measures against statiT disThargeC KeeO Tontainer tightly TlosedC F o not / reathe qaCorC F o not eatYdrink or smoke when using this CroduTtC R ash hands thoroughly after handlingC 6 ontaminated work Tlothing must not / e allowed out of the workClaTeC

Response : Get mediTal attention if you feel unwellC 03 eECosed or TonTerned5 Get mediTal attentionC 03 WL SK0L (or hair)5 Qake off immediately all Tontaminated TlothingC Uinse skin with water or showerC 03 WL SK0L 5 R ash with Clenty of soaO and waterC R ash Tontaminated Tlothing / efore reuseC 0f skin irritation or rash oTTurs5 Get mediTal attentionC 03 0L I Al S5 Uinse Tautiously with water for seqeral minutesC Uemoqe TontaTt lensesYif Cresent and easy to doC6 ontinue rinsingC 0f eye irritation Cersists5 Get mediTal attentionC

Storage : Store loTked uCC Store in a well-qentilated ClaTeC KeeO ToolC

Disposal : F isCose of Tontents and Tontainer in aTTordanTe with all loTalYregionalYnational and international regulationsC

Supplemental label elements : F I Bp Al F I 33I 6 QS 3UWc BWL G Ql Uc WVI UI XPWS2 UI C6 ontains solqents whiTh Tan Tause Cermanent / rain and nerqous system damageC0ntentional misuse / y deli/ erately TonTentrating and inhaling the Tontents Tan / e harmful or fatalC R pUL 0L G5 Qhis CroduTt Tontains ThemiTals known to the State of 6 alifornia to Tause TanTer and / irth defeTts or other reCroduTtiqe harmC 3WU 0L F 2 SQU0p B 2 SI WL BACQhis CroduTt must / e miEed with other TomCponents / efore useC, efore oCening the CaTkagesYUI pF pL F 3WBBWR R pUL 0L G Bp, I BS WL pBB 6 Wc PWL I L QS Cpde: uate qentilation re: uired when sanding or a/ rading the dried filmC0f pde: uate qentilation Tannot / e Croqided wear an aCCroqed CartiTulate resCrator (L 0WSH aCCroqed)C3 ollow resCrator manufaTturer's direTtions for resCrator useCF I Bp Al F I 33I 6 QS 3UWc BWL G Ql Uc WVI UI XPWS2 UI Cp/ rading or sanding of the dry film may release 6 rystalline SiliTa whiTh has / een shown to Tause lung damage and TanTer under long term eECosureC

Please refer to the SF S for additional informationCKeeO out of reaTh of ThildrenC F o not transfer Tontents to other Tontainers for storageC

Hazards not otherwise classified : L one knownC

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : L ot aqaila/ leC

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Qitanium F ioEide	bv0M	7bDMb-MN-N
c ethyl n-p myl Ketone	7M24M	77v-Db-v
6 rystalline SiliTaYresCra/ le Cowder	. C4b	7D4v4-Mv-N
6 yTloheEanone	7Q&N	7v4-xD-7
Xylene	v0M9	7bbv-9v-N
, is(Centamethyl-D-ClCeridyl)se/ aTate	vC9	D7. . M-9M-N
I thyl/ enzene	vC77	7vv-D7-D

Section 3. Composition/information on ingredients

pny TonTentration shown as a range is to CroteTt Tonfidentiality or is due to / atTh qariationC

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 0mmediately flush eyes with Clenty of waterYoTTasionally lifting the uCCer and lower eyelidsC6 heTk for and remoqe any TontaTt lensesC6 ontinue to rinse for at least 7v minutesC Get mediTal attentionC

Inhalation : Uemoqe qiTtim to fresh air and keeOat rest in a Cosition Tomforta/ le for / reathingC 0f not / reathingYif / reathing is irregular or if resCiratory arrest oTTursYCroqide artifiTial resCiration or oEygen / y trained CersonnelC 0t may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resusTitationC Get mediTal attentionC 0f unTonsTiousYCiaTe in reToqery Cosition and get mediTal attention immediatelyC c aintain an oCen airwayC Boosen tight Tlothing suTh as a TollarYtieY/ elt or waist/ andC

Skin contact : R ash with Clenty of soaOand waterC Uemoqe Tontaminated Tlothing and shoesC R ash Tontaminated Tlothing thoroughly with water / efore remoqing itYor wear gloqesC 6 ontinue to rinse for at least 7v minutesC Get mediTal attentionC 0n the eqent of any TomCiaints or symCtomsYaqoid further eECosureC R ash Tlothing / efore reuseC6 lean shoes thoroughly / efore reuseC

Ingestion : R ash out mouth with waterC Uemoqe dentures if anyC Uemoqe qiTtim to fresh air and keeOat rest in a Cosition Tomforta/ le for / reathingC 0f material has / een swallowed and the eECosed Cerson is TonsTiousYgiqe small : uantities of water to drinkC StoOif the eECosed Cerson feels siTk as qomiting may / e dangerousC F o not induTe qomiting unless direTted to do so / y mediTal CersonnelC 0f qomiting oTTursYthe head should / e keCt low so that qomit does not enter the lungsC Get mediTal attentionC L eqer giqe anything / y mouth to an unTonsTious CersonC 0f unTonsTiousYCiaTe in reToqery Cosition and get mediTal attention immediatelyC c aintain an oCen airwayC Boosen tight Tlothing suTh as a TollarYtieY/ elt or waist/ andC

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritationC

Inhalation : L o known signifiTant effeTts or TritiTal hazardsC

Skin contact : c ay Tause an allergiT skin reaTtionC

Ingestion : L o known signifiTant effeTts or TritiTal hazardsC

Over-exposure signs/symptoms

Eye contact : p dqerse symCtoms may inTlude the following5
Cain or irritation
watering
redness

Inhalation : p dqerse symCtoms may inTlude the following5
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Skin contact : p dqerse symCtoms may inTlude the following5
irritation
redness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Section 4. First aid measures

Ingestion : pdqerse symCtoms may inTlude the following5
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Qreat symCtomatiTallyC6ontaTt Coison treatment sCeTialist immediately if large : uantities haqe / een ingested or inhaledC

Specific treatments : L o sCeTifiT treatmentC

Protection of first-aiders : L o aTtion shall / e taken inqolqing any Cersonal risk or without suita/ le trainingC0f it is susCeTted that fumes are still CresentYthe resTuer should wear an aCCroCriate mask or self-Tontained / reathing aCCaratusC0t may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resusTitationCR ash Tontaminated Tlothing thoroughly with water / efore remoqing itYor wear gloqesC

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2se dry ThemiTalYCO_2, water sCray (fog) or foamC

Unsuitable extinguishing media : F o not use water jetC

Specific hazards arising from the chemical : 3lamma/ le li: uid and qaCorC0n a fire or if heatedYa Cressure inTrease will oTTur and the Tontainer may / urstYwith the risk of a su/ se: uent eECIosionC Qhe qaCor1gas is heaqier than air and will sCread along the groundC VaCors may aTTumulate in low or Tonfined areas or traqel a Tonsidera/ le distanTe to a sourTe of ignition and flash / aTkC Uunoff to sewer may Treate fire or eECIosion hazardC

Hazardous thermal decomposition products : FeTomCosition CroduTts may inTIude the following materials5
Tar/ on dioEide
Tar/ on monoEide
metal oEide1bEides

Special protective actions for fire-fighters : PromCtly isolate the sTene / y remoqing all Cersons from the qiTinity of the inTident if there is a fireC L o aTtion shall / e taken inqolqing any Cersonal risk or without suita/ le trainingC c oqe Tontainers from fire area if this Tan / e done without riskC2se water sCray to keeCfire-eECosed Tontainers TooIC

Special protective equipment for fire-fighters : 3ire-fighters should wear aCCroCriate CroteTtiqe e: uiCment and self-Tontained / reathing aCCaratus (S6 , p) with a full faTe-CeTe oCerated in CositiqeCressure modeC

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : L o aTtion shall / e taken inqolqing any Cersonal risk or without suita/ le trainingC I qaTuate surrounding areasC KeeCunneTessary and unCroteTted Cersonnel from enteringC F o not touTh or walk through sCilled materialC Shut off all ignition sourTesC L o flaresYsmoking or flames in hazard areaC pqoid / reathing qaCor or mistC Proqide ade: uate qentilationCR ear aCCroCriate resCrator when qentilation is inade: uateC Put on aCCroCriate Cersonal CroteTtiqe e: uiCmentC

For emergency responders : 0f sCeTialized Tlothing is re: uired to deal with the sCillageYtake note of any information in SeTtion 4 on suita/ le and unsuita/ le materialsC See also the information in "3or non-emergenTy Cersonnel"C

Environmental precautions :

Section 6. Accidental release measures

pqoid disOersal of sOlled material and runoff and TontaTt with soilYwaterwaysYdrains and sewersC 0nform the releqant authorities if the OroduTt has Taused enqironmental Oollution (sewersYwaterwaysYsoil or air)C

Methods and materials for containment and cleaning up

Small spill : StoOleak if without riskC c oqe Tontainers from sOll areaC 2se sOark-Oroof tools and eEOlosion-Oroof e: uiOmentC F ilute with water and moOuOif water-solu/ leC pIternatiqelyY or if water-insolu/ leYa/ sor/ with an inert dry material and OlaTe in an aOOroOriate waste disOosal TontainerC F isOose of qia a liTensed waste disOosal TontraTtorC

Large spill : StoOleak if without riskC c oqe Tontainers from sOll areaC 2se sOark-Oroof tools and eEOlosion-Oroof e: uiOmentC p OOroaTh release from uOwindC Preqent entry into sewersY water TourseśY/ asements or Tonfined areasC R ash sOllages into an effluent treatment Olant or OroTeed as followsC 6ontain and TolleTt sOllage with non-Tom/ usti/ leY a/ sor/ ent material eGgCsandYearthYqermiTulite or diatomaTeous earth and OlaTe in Tontainer for disOosal aTTording to loTal regulations (see SeTtion 7b)C F isOose of qia a liTensed waste disOosal TontraTtorC 6ontaminated a/ sor/ ent material may Oose the same hazard as the sOlled OroduTtC L ote5see SeTtion 7 for emergenTy TontaTt information and SeTtion 7b for waste disOosalC

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aOOroOriate Oersonal OroteTtiqe e: uiOment (see SeTtion 4)C Persons with a history of skin sensitization Oro/ lems should not / e emOloyed in any OroTess in whiTh this OroduTt is usedC pqoid eEOosure - o/ tain sOeTial instruTtions / efore useC pqoid eEOosure during OregnanTyC F o not handle until all safety OreTautions haqe / een read and understoodC F o not get in eyes or on skin or TlothingC F o not / reathe qaOor or mistC F o not ingestC 2se only with ade: uate qentilationC R ear aOOroOriate resOrator when qentilation is inade: uateC F o not enter storage areas and Tonfined sOaTes unless ade: uately qentilatedC KeeOin the original Tontainer or an aOOroqed alternatiqe made from a TomOati/ le materialYkeOt tightly TlosedC when not in useC Store and use away from heatYsOarksYoOen flame or any other ignition sourTeC 2se eEOlosion-Oroof eleTtriTal (qentilatingYlighting and material handling) e: uiOmentC 2se only non-sOarking toolsC Qake OreTautionary measures against eleTtrostatiT disThargesC I mOty Tontainers retain OroduTt residue and Tan / e hazardousC F o not reuse TontainerC

Advice on general occupational hygiene : I atingYdrinking and smoking should / e Orohi/ ited in areas where this material is handledYstored and OroTessedC R orkers should wash hands and faTe / efore eatingY drinking and smokingC Uemoqe Tontaminated Tlothing and OroteTtiqe e: uiOment / efore entering eating areasC See also SeTtion 4 for additional information on hygiene measuresC

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe with loTal regulationsC Store in a segregated and aOOroqed areaC Store in original Tontainer OroteTted from direTt sunlight in a dryYTool and well-qentilated areaYaway from inTomOati/ le materials (see SeTtion 7v) and food and drinkC Store loTked uOC I liminate all ignition sourTesC SeOarate from oEidizing materialsC KeeO Tontainer tightly TlosedC and sealed until ready for useC 6ontainers that haqe / een oOened must / e Tarefully resealed and keOt uOright to OreqentleakageC F o not store in unla/ eled TontainersC 2se aOOroOriate Tontainment to aqoid enqironmental TontaminationC

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Qitanium F ioEide	**ACGIH TLV (United States, 3/2016).** QR p57v mg1m³ 4 hoursC **OSHA PEL (United States, 6/2016).** QR p57. mg1m³ 4 hoursC3orm5Qotal dust
c ethyl n-pmyl Ketone	**ACGIH TLV (United States, 3/2016).** QR p5. v COm 4 hoursC QR p59bb mg1m³ 4 hoursC **NIOSH REL (United States, 10/2013).** QR p57vv COm 7v hoursC QR p5DM mg1m³ 7v hoursC **OSHA PEL (United States, 6/2016).** QR p57vv COm 4 hoursC QR p5DM mg1m³ 4 hoursC
6rystalline SiliTaYresCira/ le Cowder	**OSHA PEL Z3 (United States, 6/2016).** QR p59. v mCOTf 1(%SiW9+.) 4 hoursC3orm5 UesCira/ le QR p57v mg1m³ 1(%SiW9+9) 4 hoursC3orm5 UesCira/ le **OSHA PEL (United States, 6/2016).** QR p5. v µg1m³ 4 hoursC3orm5UesCira/ le dust **ACGIH TLV (United States, 3/2016).** QR p5v0v9. mg1m³ 4 hoursC3orm5 UesCira/ le fraTtion **NIOSH REL (United States, 10/2013).** QR p5v0v. mg1m³ 7v hoursC3orm5resCira/ le dust
6 yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** QR p59v COm 4 hoursC SQl B5. v COm 7. minutesC **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** QR p59. COm 7v hoursC QR p57vv mg1m³ 7v hoursC **OSHA PEL (United States, 6/2016).** QR p5. v COm 4 hoursC QR p59vv mg1m³ 4 hoursC
Xylene	**ACGIH TLV (United States, 3/2016).** QR p57vv COm 4 hoursC QR p5DbD mg1m³ 4 hoursC SQl B57. v COm 7. minutesC SQl B5M 7 mg1m³ 7. minutesC **OSHA PEL (United States, 6/2016).** QR p57vv COm 4 hoursC QR p5Db. mg1m³ 4 hoursC
, is(Oentamethyl-D-CiCeridyl)se/ aTate	L oneC
I thyl/ enzene	**ACGIH TLV (United States, 3/2016).** QR p59v COm 4 hoursC **NIOSH REL (United States, 10/2013).** QR p57vv COm 7v hoursC QR p5Db. mg1m³ 7v hoursC SQl B579. COm 7. minutesC SQl B5. D. mg1m³ 7. minutesC **OSHA PEL (United States, 6/2016).** QR p57vv COm 4 hoursC QR p5Db. mg1m³ 4 hoursC

Section 8. Exposure controls/personal protection

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6rystalline SiliTaYresCra/ le Cowder	**CA British Columbia Provincial (Canada, 5/2015).** QR p5vCV9. mg1m³ 4 hoursC3orm5 UesCra/ le **CA Quebec Provincial (Canada, 1/2014).** QR pl V5vC7 mg1m³ 4 hoursC3orm5 UesCra/ le dustC **CA Ontario Provincial (Canada, 7/2015).** QR p5vC7 mg1m³ 4 hoursC3orm5UesCra/ le fraTtionC **CA Alberta Provincial (Canada, 4/2009).** 4 hrs Wl B5vCV9. mg1m³ 4 hoursC3orm5 UesCra/ le CartiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** QR p5vCV. mg1m³ 4 hoursC3orm5resCra/ le fraTtion
6 yTloheEanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 4 hrs Wl B59v COm 4 hoursC 4 hrs Wl B54v mg1m³ 4 hoursC 7. min Wl B59vv mg1m³ 7. minutesC 7. min Wl B5. v COm 7. minutesC **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** QR p59v COm 4 hoursC SQl B5. v COm 7. minutesC **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** QR p59v COm 4 hoursC SQl B5. v COm 7. minutesC **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** QR pl V59. COm 4 hoursC QR pl V57vv mg1m³ 4 hoursC **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SQl B5. v COm 7. minutesC QR p59v COm 4 hoursC
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs Wl B57vv COm 4 hoursC 7. min Wl B5M 7 mg1m³ 7. minutesC 7. min Wl B57. v COm 7. minutesC 4 hrs Wl B5DbD mg1m³ 4 hoursC **CA British Columbia Provincial (Canada, 5/2015).** QR p57vv COm 4 hoursC SQl B57. v COm 7. minutesC **CA Quebec Provincial (Canada, 1/2014).** QR pl V57vv COm 4 hoursC QR pl V5DbD mg1m³ 4 hoursC SQl V57. v COm 7. minutesC SQl V5M 7 mg1m³ 7. minutesC **CA Ontario Provincial (Canada, 7/2015).** SQl B57. v COm 7. minutesC

Section 8. Exposure controls/personal protection

	QR p57vv COm 4 hoursC **CA Saskatchewan Provincial (Canada, 7/2013).** SQl B57. v COm 7. minutesC QR p57vv COm 4 hoursC
I thyl/ enzene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs Wl B57vv COm 4 hoursC 4 hrs Wl B5DbD mg1m³ 4 hoursC 7. min Wl B5. Db mg1m³ 7. minutesC 7. min Wl B579. COm 7. minutesC **CA British Columbia Provincial (Canada, 5/2015).** QR p59v COm 4 hoursC **CA Ontario Provincial (Canada, 7/2015).** QR p59v COm 4 hoursC **CA Quebec Provincial (Canada, 1/2014).** QR pl V57vv COm 4 hoursC QR pl V5DbD mg1m³ 4 hoursC SQl V579. COm 7. minutesC SQl V5. Db mg1m³ 7. minutesC **CA Saskatchewan Provincial (Canada, 7/2013).** SQl B579. COm 7. minutesC QR p57vv COm 4 hoursC

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
c ethyl n-p myl Ketone	**NOM-010-STPS (Mexico, 4/2016).** Bc Pl -PPQ5. v COm 4 hoursC
6 rystalline SiliTaYresCira/ le Cowder	**NOM-010-STPS (Mexico, 4/2016).** Bc Pl -PPQ5vQ9. mg1m³ 4 hoursC3 orm5 UesCira/ le fraTtion
6 yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Bc Pl -PPQ59v COm 4 hoursC Bc Pl -6 Q5. v COm 7. minutesC
Xylene	**NOM-010-STPS (Mexico, 4/2016).** Bc Pl -6 Q57. v COm 7. minutesC Bc Pl -PPQ57vv COm 4 hoursC
I thyl/ enzene	**NOM-010-STPS (Mexico, 4/2016).** Bc Pl -PPQ59v COm 4 hoursC

Appropriate engineering controls : 2 se only with ade: uate qentilationC 2 se CroTess enTlosuresYloTal eEhaust qentilation or other engineering Tontrols to keeO worker eECosure to air/ orne Tontaminants / elow any reTommended or statutory limitsC Qhe engineering Tontrols also need to keeO gasY qaCor or dust TonTentrations / elow any lower eECIosiqe limitsC 2 se eECIosion-Croof qentilation e: uiCmentC

Environmental exposure controls : I missions from qentilation or work CroTess e: uiCment should / e TheTked to ensure they TomCly with the re: uirements of enqironmental CroteTtion legislationC 0n some TasesYfume sTru/ / ersYfilters or engineering modifiTations to the CroTess e: uiCment will / e neTessary to reduTe emissions to aTTeCta/ le leqelsC

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures : R ash handsYforearms and faTe thoroughly after handling ThemiTal CroduTtsY/ efore eatingYsmoking and using the laqatory and at the end of the working CeriodC p CCroCriate teThni: ues should / e used to remoqe Cotentially Tontaminated TlothingC 6 ontaminated work Tlothing should not / e allowed out of the workCaTeC R ash Tontaminated Tlothing / efore reusingC I nsure that eyewash stations and safety showers are Tlose to the workstation loTationC

Eye/face protection : Safety eyewear TomCying with an aCCroqed standard should / e used when a risk assessment indiTates this is neTessary to aqoid eECosure to li: uid sCashesYmistsY gases or dustsC 0f TontaTt is Cossi/ leYthe following CroteTtion should / e wornYunless the assessment indiTates a higher degree of CroteTtion5 ThemiTal sCash gogglesC

Skin protection

Hand protection : 6 hemiTal-resistantYimCerqious gloqes TomCying with an aCCroqed standard should / e worn at all times when handling ThemiTal CroduTts if a risk assessment indiTates this is neTessaryC 6 onsidering the Carameters sCeTified / y the gloqe manufaTturerYTheTk during use that the gloqes are still retaining their CroteTtiqe CroCertiesC 0t should / e noted that the time to / reakthrough for any gloqe material may / e different for different gloqe manufaTturersC 0n the Tase of miEturesYTonsisting of seqeral su/ stanTesYthe CroteTtion time of the gloqes Tannot / e aTTurately estimatedC

Body protection : Personal CroteTtiqe e: uiCment for the / ody should / e seleTted / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCeTialist / efore handling this CroduTtC R hen there is a risk of ignition from statiT eleTtriTityYwear anti-statiT CroteTtiqe TlothingC 3or the greatest CroteTtion from statiT disThargesYTlothing should inTlude anti-statiT oqerallsY/ oots and gloqesC

Other skin protection : p CCroCriate footwear and any additional skin CroteTtion measures should / e seleTted / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCeTialist / efore handling this CroduTtC

Respiratory protection : , ased on the hazard and Cotential for eECosureYseleTt a resCirator that meets the aCCroCriate standard or TertifiTationC UesCirators must / e used aTTording to a resCiratory CroteTtion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCeTts of useC

Section 9. Physical and chemical properties

Appearance

Physical state : Bi: uidC

Color : L ot aqaila/ leC

Odor : L ot aqaila/ leC

Odor threshold : L ot aqaila/ leC

pH : L ot aqaila/ leC

Melting point : L ot aqaila/ leC

Boiling point : 7DN°6 (9xMDM°3)

Flash point : 6 losed TuC5bx°6 (7v9C9°3) [Pensky-c artens 6 losed 6 uC]

Evaporation rate : vC0b (/ utyl aTetate = 7)

Flammability (solid, gas) : L ot aqaila/ leC

Lower and upper explosive (flammable) limits : Bower57C7% 2 COer54C7%

Vapor pressure : vC7 kPa (b04. . mm Hg) [at 9v°6]

Vapor density : b0D [p ir = 7]

Relative density : 70D7

Solubility : L ot aqaila/ leC

Partition coefficient: n-octanol/water : L ot aqaila/ leC

Auto-ignition temperature : L ot aqaila/ leC

Section 9. Physical and chemical properties

Decomposition temperature : L ot aqaila/ leC

Viscosity : KinematiT (Dv°6 (7vD°3))5>v@9v. Tm^{9}1s (>9vC TSt)

Molecular weight : L ot aCCliTa/ leC

Aerosol product

Heat of combustion : xQ?NNkJ1g

Section 10. Stability and reactivity

Reactivity : L o sCeTifiT test data related to reaTtiqity aqaila/ le for this CroduTt or its ingredientsC

Chemical stability : Qhe CroduTt is sta/ leC

Possibility of hazardous reactions : 2nder normal Tonditions of storage and useYhazardous reaTtions will not oTTurC

Conditions to avoid : pqoid all Cossi/ le sourTes of ignition (sQark or flame)C Fo not CressurizeYTutYweldY / razeYsolderYdrillYgrind or eECose Tontainers to heat or sourTes of ignitionC Fo not allow qaQor to aTTumulate in low or Tonfined areasC

Incompatible materials : UeaTtiqe or inTomQati/ le with the following materials5
oEidizing materials

Hazardous decomposition products : 2nder normal Tonditions of storage and useYhazardous deTomQosition QroduTts should not / e QroduTedC

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-pmyl Ketone	BF. v Wral	Uat	7Mvv mg1kg	-
6yTloheEanone	B6. v 0nhalation GasC	Uat	4vvv QQm	Dhours
	BF. v Wral	Uat	74vv mg1kg	-
Xylene	B6. v 0nhalation GasC	Uat	. vvv QQm	Dhours
	BF. v Wral	Uat	Dbvv mg1kg	-
I thyl/ enzene	BF. v Fermal	Ua/ / it	>. vvv mg1kg	-
	BF. v Wral	Uat	b. vv mg1kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Qitanium FioEide	Skin - c ild irritant	Human	-	N9 hours bvv c iTrograms 0ntermittent	-
c ethyl n-pmyl Ketone	Skin - c ild irritant	Ua/ / it	-	9Dhours 7D milligrams	-
6yTloheEanone	I yes - Seqere irritant	Ua/ / it	-	9Dhours 9. v c iTrograms	-
	I yes - Seqere irritant	Ua/ / it	-	9v milligrams	-
	Skin - c ild irritant	Human	-	D4 hours . v PerTent	-
	Skin - c ild irritant	Ua/ / it	-	. vv milligrams	-
Xylene	I yes - c ild irritant	Ua/ / it	-	4N milligrams	-
	I yes - Seqere irritant	Ua/ / it	-	9Dhours . milligrams	-

Section 11. Toxicological information

	Skin - c ild irritant	Uat	-	4 hours Mv miTroliters	-
	Skin - c oderate irritant	Ua/ / it	-	9D hours . vv milligrams	-
	Skin - c oderate irritant	Ua/ / it	-	7vv PerTent	-
I thyl/ enzene	I yes - Seqere irritant	Ua/ / it	-	. vv milligrams	-
	Skin - c ild irritant	Ua/ / it	-	9D hours 7. milligrams	-

Sensitization

L ot aqaila/ leC

Mutagenicity

L ot aqaila/ leC

Carcinogenicity

L ot aqaila/ leC

Classification

Product/ingredient name	OSHA	IARC	NTP
Qitanium F ioEide	-	9,	-
6 rystalline SiliTaYresCra/ le Cowder	-	7	Known to / e a human TarTinogenC
6 yTloheEanone	-	b	-
Xylene	-	b	-
I thyl/ enzene	-	9,	-

Reproductive toxicity

L ot aqaila/ leC

Teratogenicity

L ot aqaila/ leC

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-p myl Ketone	6 ategory b	L ot aCCiTa/ leC	UesCiratory traTt irritation and L arTotiT effeTts
6 yTloheEanone	6 ategory b	L ot aCCiTa/ leC	UesCiratory traTt irritation and L arTotiT effeTts
Xylene	6 ategory b	L ot aCCiTa/ leC	UesCiratory traTt irritation and L arTotiT effeTts
I thyl/ enzene	6 ategory b	L ot aCCiTa/ leC	UesCiratory traTt irritation and L arTotiT effeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-p myl Ketone	6 ategory 9	L ot determined	L ot determined
6 rystalline SiliTaYresCra/ le Cowder	6 ategory 7	0nhalation	L ot determined
6 yTloheEanone	6 ategory 9	L ot determined	L ot determined
Xylene	6 ategory 9	L ot determined	L ot determined
I thyl/ enzene	6 ategory 9	L ot determined	L ot determined

Section 11. Toxicological information

Aspiration hazard

Name	Result
Xylene I thyl/ enzene	pSP0UpQ0WL HpZpUF - 6ategory 7 pSP0UpQ0WL HpZpUF - 6ategory 7

Information on the likely routes of exposure : L ot aqaila/ leC

Potential acute health effects

Eye contact : 6auses serious eye irritationC

Inhalation : L o known signifiTant effeTts or TritiTal hazardsC

Skin contact : c ay Tause an allergiT skin reaTtionC

Ingestion : L o known signifiTant effeTts or TritiTal hazardsC

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : pdqerse symCtoms may inTlude the following5
Cain or irritation
watering
redness

Inhalation : pdqerse symCtoms may inTlude the following5
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Skin contact : pdqerse symCtoms may inTlude the following5
irritation
redness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Ingestion : pdqerse symCtoms may inTlude the following5
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : L ot aqaila/ leC

Potential delayed effects : L ot aqaila/ leC

Long term exposure

Potential immediate effects : L ot aqaila/ leC

Potential delayed effects : L ot aqaila/ leC

Potential chronic health effects

L ot aqaila/ leC

General : 6auses damage to organs through Crolonged or reCeated eECosureC WhTe sensitizedYa seqere allergiT reaTtion may oTTur when su/ se: uently eECosed to qery low leqelsC

Carcinogenicity : c ay Tause TanTerC Uisk of TanTer deCends on duration and leqel of eECosureC

Mutagenicity : L o known signifiTant effeTts or TritiTal hazardsC

Teratogenicity : SusCeTted of damaging the un/ orn ThildC

Developmental effects : L o known signifiTant effeTts or TritiTal hazardsC

Fertility effects : L o known signifiTant effeTts or TritiTal hazardsC

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Fermal 0nhalation (gases) 0nhalation (qaCors)	. D. xCb mg1kg b. D740N mg1kg 9. N. xv04 CCm D70DD mg1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Qitanium FioEide	pTute B6 . v >7vvvvvv µg1 c arine water	3ish - 3undulus heteroTlitus	xMhours
c ethyl n-pmyl Ketone	pTute B6 . v 7b7vvv µg1 3resh water	3ish - PimeChales Cromelas	xMhours
6 yTloheEanone	pTute I 6 . v b90x mg1 3resh water	plgae - 6 hlamydomonas reinhardtii - I EConential growth Chase	N9 hours
	pTute B6 . v . 9Nvvv µg1 3resh water	3ish - PimeChales Cromelas	xMhours
	6 hroniT I 6 7v bCMmg1 3resh water	plgae - 6 hlamydomonas reinhardtii - I EConential growth Chase	N9 hours
Xylene	pTute B6 . v 4. vv µg1 c arine water	6 rustaTeans - Palaemonetes Cugio	D4 hours
	pTute B6 . v 7bDvv µg1 3resh water	3ish - PimeChales Cromelas	xMhours
I thyl/ enzene	pTute I 6 . v DMvv µg1 3resh water	plgae - PseudokirThneriella su/ TaCtata	N9 hours
	pTute I 6 . v bMvv µg1 3resh water	plgae - PseudokirThneriella su/ TaCtata	xMhours
	pTute I 6 . v M bv µg1 3resh water	6 rustaTeans - prtemia sCC- LauCii	D4 hours
	pTute I 6 . v 9xbv µg1 3resh water	FaChnia - FaChnia magna - Leonate	D4 hours
	pTute B6 . v D9vv µg1 3resh water	3ish - WhTorhynThus mykiss	xMhours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
c ethyl n-pmyl Ketone	-	-	Ueadily
Xylene	-	-	Ueadily
I thyl/ enzene	-	-	Ueadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	4C7 to 9. Cx	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : L ot aqaila/ leC

Other adverse effects : L o known signifiTant effeTts or TritiTal hazardsC

Section 13. Disposal considerations

Disposal methods : Qhe generation of waste should / e aqoided or minimized whereqer Oossi/ leC F isOosal of this OroduTtYsolutions and any / y-OroduTts should at all times TomOly with the re: uirements of enqironmental OroteTtion and waste disOosal legislation and any regional loTal authority re: uirementsC F isOose of surOlus and non-reTyTla/ le OroduTts qia a liTensed waste disOosal TontraTtorC R aste should not / e disOosed of untreated to the sewer unless fully TomOliant with the re: uirements of all authorities with jurisdiTtionC R aste OaTkaging should / e reTyTledC 0nTineration or landfill should only / e Tonsidered when reTyTling is not feasi/ leC Qhis material and its Tontainer must / e disOosed of in a safe wayC 6 are should / e taken when handling emOtied Tontainers that haqe not / een Tleaned or rinsed outC I mOty Tontainers or liners may retain some OroduTt residuesC VaOor from OroduTt residues may Treate a highly flamma/ le or eEOlosiqe atmosOhere inside the TontainerC F o not TutYweld or grind used Tontainers unless they haqe / een Tleaned thoroughly internallyC p qoid disOersal of sOilled material and runoff and TontaTt with soilYwaterwaysYdrains and sewersC

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2L79Mb	2L79Mb	2L79Mb	2L79Mb	2L79Mb
UN proper shipping name	Pp0LQ	Pp0LQ	Pp0LQ	Pp0LQ	Pp0LQ
Transport hazard class(es)	b	b	b	b	b
Packing group	000	000	000	000	000
Environmental hazards	LoC	LoC	LoC	LoC	LoC
Additional information	Qhis OroduTt may / e re-Tlassified as "6om/ usti/ le Bi: uidY unless transOorted / y qessel or airTraftC L on-/ ulk OaTkages (less than or e: ual to 77x gal) of Tom/ usti/ le li: uids are not regulated as hazardous materials in OaTkage sizes less than the OroduTt reOorta/ le : uantityC **ERG No.** 794	ProduTt Tlassified as Oer the following seTtions of the QransOortation of F angerous Goods Uegulations59C 74-90Zx (6lass b)C **ERG No.** 794	- **ERG No.** 794	-	**Emergency schedules (EmS)** 3-I YS-I

Section 14. Transport information

Special precautions for user : c ulti-modal shiCCing desTriCtions are Croqided for informational CurCoses and do not Tonsider Tontainer sizesCQhe CresenTe of a shiCCing desTriCtion for a CartiTular mode of transCort (seaYairYetTQYdoes not indiTate that the CroduTt is CaTkaged suita/ ly for that mode of transCortCp ll CaTkaging must / e reqiewed for suita/ ility Crior to shiCmentYand TomCianTe with the aCCiTa/ le regulations is the sole resConsi/ ility of the Cerson offering the CroduTt for transCortCPeoCle loading and unloading dangerous goods must / e trained on all of the risks deriqing from the su/ stanTes and on all aTtions in Tase of emergenTy situationsC

Transport in bulk according to Annex II of MARPOL and the IBC Code : L ot aqaila/ leC

Proper shipping name : L ot aqaila/ leC

Ship type : L ot aqaila/ leC

Pollution category : L ot aqaila/ leC

Section 15. Regulatory information

SARA 313

Sp Up b7b (Dv 6 3U bN9CD.) suCCier notifiTation Tan / e found on the I nqironmental F ata SheetC

California Prop. 65

R pUL 0L G5 Qhis CroduTt Tontains ThemiTals known to the State of 6 alifornia to Tause TanTer and / irth defeTts or other reCroduTtiqe harmC

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	9
Flammability		9
Physical hazards		v

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
3Bpc c p, Bl B08 2 0F S - 6 ategory b	Wn / asis of test data
Sl U0W2 S I Al Fpc pGl 1l Al 0JU0Qp Q0WL - 6 ategory 9p	6 alTulation method
SK0L Sl L S0Q0Zp Q0WL - 6 ategory 7	6 alTulation method
6 pU6 0L WGl L 6 0QA - 6 ategory 7p	6 alTulation method
QWX06 QW Ul PUWF 2 6 Q0WL (2 n/ orn Thild) - 6 ategory 9	6 alTulation method
SPl 6 0306 QpUGl Q WUGpL QWX6 0QA (Ul Pl pQl F I XPWS2 Ul) - 6 ategory 7	6 alTulation method

History

Date of printing : Mb19v7N

Date of issue/Date of revision : Mb19v7N

Date of previous issue : . 19D19v7N

Version : x

Section 16. Other information

Key to abbreviations : pQl = pTute QoEiTity I stimate
, 63 = , ioTonTentration 3aTtor
GHS = Glo/ ally Harmonized System of 6lassifiTation and Ba/ elling of 6hemiTals
0pQp = 0nternational pir QransCort pssoTiation
0l 6 = 0ntermediate , ulk 6ontainer
0c FG = 0nternational c aritime Fangerous Goods
BogPow = logarithm of the oTtanol1water Cartition ToeffiTient
c pUPWB = 0nternational 6onqention for the Preqention of Pollution 3rom ShiCsY7xNb as modified / y the ProtoTol of 7xN4C("c arCol" = marine Collution)
2L = 2nited L ations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, MkpR R bvM

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
SSUpB Nvb.

Product code : , MkpR R bvM

Other means of identification : L ot aqaila/ leC

CAS # : L ot aCCiil a/ leC

Product type : Bi: uidC

Relevant identified uses of the substance or mixture and uses advised against

L ot aCCiil a/ leC

Manufacturer : 0HQ SHQUR 8L -R 8BB8pE S 6 WE PpL A
7v7 R CProsCel t pqenue
6 leqelandYWH DD77x

Emergency telephone number of the company : 2 S 16 anada5(97M) xMM9c7N
E eTil o5SQ084 v7-. vv-vv-97D-vv 1 FC3Cxxxc-7x. . 9D hours 1bMk days a year

Product Information Telephone Number : 2 S 16 anada5(. vv) x9D-xcNc
E eTil o5L ot pqaila/ le

Regulatory Information Telephone Number : 2 S 16 anada5(97M) xMM9cv9
E eTil o5L ot pqaila/ le

Transportation Emergency Telephone Number : 2 S 16 anada5(. vv) D9D-cbvv
E eTil o5SQ084 v7-. vv-vv-97D-vv 1 FC3Cxxxc-7x. . 9D hours 1bMk days a year

Section 2. Hazards identification

OSHA/HCS status : 0his material is I onsidered hazardous / y the WSHp Hazard 6 ommunil ation Standard (9c 6 3U 7c7vC79vv)C

Classification of the substance or mixture : 3BpE E p, BQ B84 2 8F S - 6 ategory b
SQU8W2 S QAQ F pE pGQ1QAQ 8JU80p 08WL - 6 ategory 9p
SK8L SQL S80 8Zp 08WL - 6 ategory 7
6 pU6 8L WGQL 86 80A - 6 ategory 7p
0WX86 0W UQPUWF 2 6 08WL (2 n/ orn I hild) - 6 ategory 9
SPQ6 838 6 0pUGQ0 WUGpL 0WX86 80A (S8L GBQ QXPWS2 UQ) (UesCiratory tral t irritation) - 6 ategory b
SPQ6 838 6 0pUGQ0 WUGpL 0WX86 80A (S8L GBQ QXPWS2 UQ) (L arl otil effel ts) - 6 ategory b
SPQ6 838 6 0pUGQ0 WUGpL 0WX86 80A (UQPQp0QF QXPWS2 UQ) - 6 ategory 7
Perl entage of the miTture l onsisting of ingredient(s) of unknown al ute toTil ity57c0x%

GHS label elements

Hazard pictograms :

Signal word : F anger

Section 2. Hazards identification

Hazard statements : 3lamma/ le li: uid and qaCorC
6 auses serious eye irritationC
E ay l ause an allergil skin real tionC
E ay l ause l anl erC
SusCel ted of damaging the un/ orn l hildC
E ay l ause resCiratory irritationC
E ay l ause drowsiness or dizzinessC
6 auses damage to organs through Crolonged or reCeated eTCosureC

Precautionary statements

Prevention : W/ tain sCel ial instrul tions / efore useC F o not handle until all safety Crel autions haqe / een read and understoodC R ear Crotel tiqe gloqesC R ear eye or fal e Crotel tionC R ear Crotel tiqe l lothingC KeeO away from heatYhot surfal esYsCarksYoCen flames and other ignition sourl esCL o smokingC 2 se eTClosion-Croof elel tril alYqentilatingYlighting and all material-handling e: uiCmentC 2 se only non-sCarking toolsC 0 ake Crel autionary measures against statil disl hargeC KeeOl ontainer tightly l losedC 2 se only outdoors or in a well-qentilated areaC F o not / reathe qaCorC F o not eatYdrink or smoke when using this CroduI tC R ash hands thoroughly after handlingC 6 ontaminated work l lothing must not / e allowed out of the workClal eC

Response : Get medil al attention if you feel unwellC 83 eTCosed or l onl erned5 Get medil al attentionC 83 8L HpBQF 5 Uemoqe Cerson to fresh air and keeOl omforta/ le for / reathingC 6 all a PW8SWL 6 QL 0 QU or Chysil ian if you feel unwellC 83 WL SK8L (or hair)5 0 ake off immediately all l ontaminated l lothingC Uinse skin with water or showerC 83 WL SK8L 5 R ash with Clenty of soaOand waterC R ash l ontaminated l lothing / efore reuseC 8f skin irritation or rash ol l urs5 Get medil al attentionC 83 8L QAQS5 Uinse l autiously with water for seqeral minutesC Uemoqe l ontal t lensesYif Cresent and easy to doC6 ontinue rinsingC 8f eye irritation Cersists5 Get medil al attentionC

Storage : Store lol ked uCC Store in a well-qentilated Clal eC KeeOl oolC

Disposal : F isCose of l ontents and l ontainer in al l ordanl e with all lol alYregionalYnational and international regulationsC

Supplemental label elements : F QBp AQF Q33Q60S 3UWE BWL G 0QUE WVQUQXPWS2 UQC6 ontains solqents whil h l an l ause Cermanent / rain and nerqous system damageC8ntentional misuse / y deli/ erately l onl entrating and inhaling the l ontents l an / e harmful or fatalC R pUL8L G5 0his CroduI t l ontains l hemil als known to the State of 6 alifornia to l ause l anl er and / irth defel ts or other reCrodul tiqe harmC 3WU 8L F 2 S0U8pB 2 SQ WL BAC 0his CroduI t must / e miTed with other l omConents / efore useC, efore oCening the Cal kagesYUQp F pL F 3WBBWR R pUL8L G Bp, QBS WL pBB 6 WE PWL QL 0 SCp de: uate qentilation re: uired when sanding or a/ rading the dried filmC8f p de: uate qentilation l annot / e Croqided wear an aCCroqed Cartil ulate resCirator (L 8/WSH aCCroqed)C3ollow resCirator manufal turer's direl tions for resCirator useCF QBp AQF Q33Q60S 3UWE BWL G 0QUE WVQUQXPWS2 UQCp / rading or sanding of the dry film may release 6 rystalline Silil a whil h has / een shown to l ause lung damage and l anl er under long term eTCosureC

Please refer to the SF S for additional informationCKeeOout of real h of l hildrenC F o not transfer l ontents to other l ontainers for storageC

Hazards not otherwise classified : L one knownC

Section 3. Composition/information on ingredients

Substance/mixture : E iTture

Other means of identification : L ot aqaila/ leC

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
E ethyl n-p myl Ketone	970M	77v-Db-v
6 rystalline Silil aYresCra/ le Cowder	7bC	7D. v. -Mv-N
0itanium F ioTide	x0N7	7bDMb-MN-N
6 yl loheTanone	70N9	7v. -cD-7
, is(Centamethyl-D-ClCeridyl)se/ al ate	vC9D	D7xxM-9M-N
Xylene	vC79	7bbv-9v-N

p ny I onI entration shown as a range is to CroteI t I onfidentiality or is due to / atI h qariationC

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 8mmediately flush eyes with Clenty of waterYoI I asionally lifting the uCCer and lower eyelidsC 6 heI k for and remoqe any I ontaI t lensesC 6 ontinue to rinse for at least 7v minutesC Get mediI al attentionC

Inhalation : Uemoqe qil tim to fresh air and keeOat rest in a Cosition I omforta/ le for / reathingC 8f it is susCeI ted that fumes are still CresentYthe resI uer should wear an aCCroCriate mask or self-I ontained / reathing aCCaratusC 8f not / reathingYif / reathing is irregular or if resCiratory arrest oI I ursYCroqide artifiI ial resCiration or oTygen / y trained CersonnelC 8t may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resusI itationC Get mediI al attentionC 8f neI essaryYI all a Coison I enter or ChysiI ianC 8f unI onsI iousY ClaI e in reI oqery Cosition and get mediI al attention immediatelyC E aintain an oCen airwayC Boosen tight I lothing suI h as a I ollarYtieY/ elt or waist/ andC

Skin contact : R ash with Clenty of soaOand waterC Uemoqe I ontaminated I lothing and shoesC R ash I ontaminated I lothing thoroughly with water / efore remoqing itYor wear gloqesC 6 ontinue to rinse for at least 7v minutesC Get mediI al attentionC 8n the eqent of any I omClaints or symCtomsYaqoid further eTCosureC R ash I lothing / efore reuseC 6 lean shoes thoroughly / efore reuseC

Ingestion : R ash out mouth with waterC Uemoqe dentures if anyC Uemoqe qil tim to fresh air and keeOat rest in a Cosition I omforta/ le for / reathingC 8f material has / een swallowed and the eTCosed Cerson is I onsI iousYgiqe small : uantities of water to drinkC StoOif the eTCosed Cerson feels siI k as qomiting may / e dangerousC F o not indul e qomiting unless direI ted to do so / y mediI al CersonnelC 8f qomiting oI I ursYthe head should / e keCt low so that qomit does not enter the lungsC Get mediI al attentionC 8f neI essaryY I all a Coison I enter or ChysiI ianC L eqer giqe anything / y mouth to an unI onsI ious CersonC 8f unI onsI iousYClaI e in reI oqery Cosition and get mediI al attention immediatelyC E aintain an oCen airwayC Boosen tight I lothing suI h as a I ollarYtieY/ elt or waist/ andC

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritationC

Inhalation : 6 an I ause I entral nerqous system (6 L S) deCressionC E ay I ause drowsiness or dizzinessC E ay I ause resCiratory irritationC

Skin contact : E ay I ause an allergiI skin reaI tionC

Ingestion : 6 an I ause I entral nerqous system (6 L S) deCressionC

Over-exposure signs/symptoms

Eye contact : p dqerse symCtoms may inI lude the following5
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : p dqerse symCtoms may inI lude the following5
resCratory tral t irritation
I oughing
nausea or qomiting
headal he
drowsiness1fatigue
dizziness1qertigo
unI onsI iousness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Skin contact : p dqerse symCtoms may inI lude the following5
irritation
redness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Ingestion : p dqerse symCtoms may inI lude the following5
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : 0reat symCtomatiI allyC 6 ontaI t CoisonI treatment sCeI ialist immediately if large : uantities haqe / een ingested or inhaledC

Specific treatments : L o sCeI ifiI treatmentC

Protection of first-aiders : L o aI tion shall / e taken inqolqing any Cersonal risk or without suita/ le trainingC 8f it is susCeI ted that fumes are still CresentYthe resI uer should wear an aCCroCriate mask or self-I ontained / reathing aCCaratusC 8t may / e dangerous to the Cerson Croqiding aid to giqe mouth-to-mouth resusI itationC R ash I ontaminated I lothing thoroughly with water / efore remoqing itYor wear gloqesC

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2 se dry I hemiI alYCO_2, water sCray (fog) or foamC

Unsuitable extinguishing media : F o not use water jetC

Specific hazards arising from the chemical : 3lamma/ le li: uid and qaCorC 8n a fire or if heatedYa Cressure inI rease will oI I ur and the I ontainer may / urstYwith the risk of a su/ se: uent eTCIosionC 0he qaCor1gas is heaqier than air and will sCread along the groundC VaCors may aI I umulate in low or I onfined areas or traqel a I onsidera/ le distanI e to a sourI e of ignition and flash / aI kC Uunoff to sewer may I reate fire or eTCIosion hazardC

Hazardous thermal decomposition products : F eI omCosition CroduI ts may inI lude the following materials5
I ar/ on dioTide
I ar/ on monoTide
metal oTide1bTides

Special protective actions for fire-fighters : PromCtly isolate the sI ene / y remoqing all Cersons from the qiI inity of the inI ident if there is a fireC L o aI tion shall / e taken inqolqing any Cersonal risk or without suita/ le trainingC E oqe I ontainers from fire area if this I an / e done without riskC 2 se water sCray to keeOfire-eTCosed I ontainers I oolC

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : 3ire-fighters should wear aCCroCriate CrotecI tiqe e: uiCment and self-I ontained / reathing aCCaratus (S6 , p) with a full faI e-CIeI e oCerated in CositiqeCressure modeC

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : L o aI tion shall / e taken inqolqing any CersonaI risk or without suita/ Ie trainingC CqaI uate surrounding areasC KeeCunnecessary and unCrotecI ted CersonneI from enteringC F o not touI h or walk through sCIIed materiaIC Shut off all ignition sourI esC L o flaresYsmoking or flames in hazard areaC p qoid / reathing qaCor or mistC Proqide ade: uate qentilationC R ear aCCroCriate resCrator when qentilation is inade: uateC Put on aCCroCriate CersonaI CrotecI tiqe e: uiCmentC

For emergency responders : 8f sCeI ialized I lothing is re: uired to deal with the sCIIageYtake note of any information in SeI tion . on suita/ Ie and unsuita/ Ie materiaIsC See also the information in "3or non-emergenI y CersonneI"C

Environmental precautions : p qoid disCersaI of sCIIed material and runoff and I ontaI t with soiIYwaterwaysYdrains and sewersC 8nform the releqant authorities if the CroduI t has I aused enqironmentaI CoIIution (sewersYwaterwaysYsoil or air)C

Methods and materials for containment and cleaning up

Small spill : StoCIeak if without riskC E oqe I ontainers from sCIIl areaC 2 se sCark-Croof tools and eTCIosion-Croof e: uiCmentC F ilute with water and moCuCif water-soIu/ IeC pIternatiqeIyY or if water-insoIu/ IeYa/ sor/ with an inert dry material and CIaI e in an aCCroCriate waste disCosaI I ontainerC F isCose of qia a Iil ensed waste disCosaI I ontraI torC

Large spill : StoCIeak if without riskC E oqe I ontainers from sCIIl areaC 2 se sCark-Croof tools and eTCIosion-Croof e: uiCmentC p CCroaI h release from uCwindC Preqent entry into sewersY water I oursesY/ asements or I onfined areasC R ash sCIIages into an effluent treatment CIant or CroI eed as followsC 6 ontain and I oIeI t sCIIage with non-I om/ usti/ IeY a/ sor/ ent material eGgCsandYearthYqermiI ulite or diatomaI eous earth and CIaI e in I ontainer for disCosaI aI I ording to IoI aI regulations (see SeI tion 7b)C F isCose of qia a Iil ensed waste disCosaI I ontraI torC 6 ontaminated a/ sor/ ent material may Cose the same hazard as the sCIIed CroduI tC L ote5see SeI tion 7 for emergenI y I ontaI t information and SeI tion 7b for waste disCosaIC

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate CersonaI CrotecI tiqe e: uiCment (see SeI tion .)C Persons with a history of skin sensitization Cro/ Iems should not / e emCIoyed in any CroI ess in whiI h this CroduI t is usedC p qoid eTCosure - o/ tain sCeI iaI instruI tions / efore useC p qoid eTCosure during CregnanI yC F o not handle until all safety CreI autions haqe / een read and understoodC F o not get in eyes or on skin or I lothingC F o not / reathe qaCor or mistC F o not ingestC 2 se only with ade: uate qentilationC R ear aCCroCriate resCrator when qentilation is inade: uateC F o not enter storage areas and I onfined sCaI es unless ade: uately qentilatedC KeeCin the original I ontainer or an aCCroqed alternatiqe made from a I omCati/ Ie materiaIYkeCt tightly I losed when not in useC Store and use away from heatYsCarksYoCen flame or any other ignition sourI eC 2 se eTCIosion-Croof eIeI triI aI (qentilatingYIighting and material handling) e: uiCmentC 2 se only non-sCarking toIsC 0ake CreI autionary measures against eIeI trostatiI disI hargesC QmCty I ontainers retain CroduI t residue and I an / e hazardousC F o not reuse I ontainerC

Advice on general occupational hygiene : QatingYdrinking and smoking should / e Crohi/ ited in areas where this material is handIedYstored and CroI essedC R orkers should wash hands and faI e / efore eatingY drinking and smokingC Uemoqe I ontaminated I lothing and CrotecI tiqe e: uiCment / efore entering eating areasC See also SeI tion . for additional information on hygiene measuresC

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in al l ordanl e with lol al regulationsC Store in a segregated and aCCroqed areaC Store in original l ontainer Crotel ted from direl t sunlight in a dryYl ool and well-qentilated areaYaway from inl omCati/ le materials (see Sel tion 7v) and food and drinkC Store lol ked uCC Qliminate all ignition sourl esC SeCarate from oTidizing materialsC KeeO l ontainer tightly l losed and sealed until ready for useC 6 ontainers that haqe / een oCened must / e l arefully resealed and keCt uCright to Creqent leakageC F o not store in unla/ eled l ontainersC 2 se aCCroCriate l ontainment to aqoid enqironmental l ontaminationC

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
E ethyl n-p myl Ketone	**ACGIH TLV (United States, 3/2016).** 0R p5xv COm . hoursC 0R p59bb mg1m³ . hoursC **NIOSH REL (United States, 10/2013).** 0R p57vv COm 7v hoursC 0R p5DMk mg1m³ 7v hoursC **OSHA PEL (United States, 6/2016).** 0R p57vv COm . hoursC 0R p5DMk mg1m³ . hoursC
6 rystalline Silil aYresCira/ le Cowder	**OSHA PEL Z3 (United States, 6/2016).** 0R p59xv mOCl f 1(%SiW9+x) . hoursC3orm5 UesCira/ le 0R p57v mg1m³ 1(%SiW9+9) . hoursC3orm5 UesCira/ le **OSHA PEL (United States, 6/2016).** 0R p5xv µg1m³ . hoursC3orm5UesCira/ le dust **ACGIH TLV (United States, 3/2016).** 0R p5v@9x mg1m³ . hoursC3orm5 UesCira/ le fral tion **NIOSH REL (United States, 10/2013).** 0R p5v@x mg1m³ 7v hoursC3orm5resCira/ le dust
0itanium F ioTide	**ACGIH TLV (United States, 3/2016).** 0R p57v mg1m³ . hoursC **OSHA PEL (United States, 6/2016).** 0R p57x mg1m³ . hoursC3orm50otal dust
6 yl loheTanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** 0R p59v COm . hoursC S0QB5xv COm 7x minutesC **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** 0R p59x COm 7v hoursC 0R p57vv mg1m³ 7v hoursC **OSHA PEL (United States, 6/2016).** 0R p5xv COm . hoursC 0R p59vv mg1m³ . hoursC
, is(Centamethyl-D-CiCeridyl)se/ al ate	L oneC
Xylene	**ACGIH TLV (United States, 3/2016).** 0R p57vv COm . hoursC 0R p5DbD mg1m³ . hoursC S0QB57xv COm 7x minutesC S0QB5Mk7 mg1m³ 7x minutesC

Section 8. Exposure controls/personal protection

	OSHA PEL (United States, 6/2016). 0R p57vv COm . hoursC 0R p5Dbx mg1m³ . hoursC

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6rystalline Silil aYresCira/ le Cowder	**CA British Columbia Provincial (Canada, 5/2015).** 0R p5v0Y9x mg1m³ . hoursC3orm5 UesCira/ le **CA Quebec Provincial (Canada, 1/2014).** 0R pQV5v07 mg1m³ . hoursC3orm5 UesCira/ le dustC **CA Ontario Provincial (Canada, 7/2015).** 0R p5v07 mg1m³ . hoursC3orm5UesCira/ le fral tionC **CA Alberta Provincial (Canada, 4/2009).** . hrs WQB5v0Y9x mg1m³ . hoursC3orm5 UesCira/ le Cartil ulate **CA Saskatchewan Provincial (Canada, 7/2013).** 0R p5v0Yx mg1m³ . hoursC3orm5resCira/ le fral tion
6yl loheTanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** . hrs WQB59v COm . hoursC . hrs WQB5. v mg1m³ . hoursC 7x min WQB59vv mg1m³ 7x minutesC 7x min WQB5xv COm 7x minutesC **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** 0R p59v COm . hoursC S0QB5xv COm 7x minutesC **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** 0R p59v COm . hoursC S0QB5xv COm 7x minutesC **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** 0R pQV59x COm . hoursC 0R pQV57vv mg1m³ . hoursC **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** S0QB5xv COm 7x minutesC 0R p59v COm . hoursC
Xylene	**CA Alberta Provincial (Canada, 4/2009).** . hrs WQB57vv COm . hoursC 7x min WQB5Mk7 mg1m³ 7x minutesC 7x min WQB57xv COm 7x minutesC . hrs WQB5DbD mg1m³ . hoursC **CA British Columbia Provincial (Canada, 5/2015).** 0R p57vv COm . hoursC S0QB57xv COm 7x minutesC **CA Quebec Provincial (Canada, 1/2014).** 0R pQV57vv COm . hoursC 0R pQV5DbD mg1m³ . hoursC S0QV57xv COm 7x minutesC

Section 8. Exposure controls/personal protection

	S0QV5Mx7 mg1m³ 7x minutesC **CA Ontario Provincial (Canada, 7/2015).** S0QB57xv COm 7x minutesC 0R p57vv COm . hoursC **CA Saskatchewan Provincial (Canada, 7/2013).** S0QB57xv COm 7x minutesC 0R p57vv COm . hoursC

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
E ethyl n-p myl Ketone	**NOM-010-STPS (Mexico, 4/2016).** BE PQ-PP05xv COm . hoursC
6 rystalline SiliI aYresCira/ le Cowder	**NOM-010-STPS (Mexico, 4/2016).** BE PQ-PP05vCv9x mg1m³ . hoursC3orm5 UesCira/ le fraI tion
6 yl loheTanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** BE PQ-PP059v COm . hoursC BE PQ-6 05xv COm 7x minutesC
Xylene	**NOM-010-STPS (Mexico, 4/2016).** BE PQ-6 057xv COm 7x minutesC BE PQ-PP057vv COm . hoursC

Appropriate engineering controls : 2 se only with ade: uate qentilationC 2 se CroI ess enI losuresYloI al eThaust qentilation or other engineering I ontrols to keeOworker eTOosure to air/ orne I ontaminants / elow any reI ommended or statutory limitsC 0he engineering I ontrols also need to keeOgasY qaCor or dust I onI entrations / elow any lower eTOlosiqe limitsC 2 se eTOlosion-Croof qentilation e: uiOmentC

Environmental exposure controls : Qmissions from qentilation or work CroI ess e: uiOment should / e I heI ked to ensure they I omOly with the re: uirements of enqironmental CroteI tion legislationC 8n some I asesYfume sI ru/ / ersYfilters or engineering modifiI ations to the CroI ess e: uiOment will / e neI essary to reduI e emissions to aI I eCta/ le leqelsC

Individual protection measures

Hygiene measures : R ash handsYforearms and faI e thoroughly after handling I hemiI aI CroduI tsY/ efore eatingYsmoking and using the laqatory and at the end of the working CeriodC p CCroCriate teI hni: ues should / e used to remoqe CotentiaIly I ontaminated I lothingC 6 ontaminated work I lothing should not / e allowed out of the workOaI eC R ash I ontaminated I lothing / efore reusingC Qnsure that eyewash stations and safety showers are I lose to the workstation loI ationC

Eye/face protection : Safety eyewear I omOlying with an aCCroqed standard should / e used when a risk assessment indiI ates this is neI essary to aqoid eTOosure to Ii: uid sOashesYmistsY gases or dustsC 8f I ontaI t is Cossi/ leYthe following CroteI tion should / e wornYunless the assessment indiI ates a higher degree of CroteI tion5 I hemiI aI sOash gogglesC

Skin protection

Hand protection : 6 hemiI aI-resistantYimCerqious gloqes I omOlying with an aCCroqed standard should / e worn at all times when handling I hemiI aI CroduI ts if a risk assessment indiI ates this is neI essaryC 6 onsidering the Carameters sCeI ified / y the gloqe manufaI turerYI heI k during use that the gloqes are still retaining their CroteI tiqe CroCertiesC 8t should / e noted that the time to / reakthrough for any gloqe material may / e different for different gloqe manufaI turersC 8n the I ase of miTturesYI onsisting of seqeraI su/ stanI esYthe CroteI tion time of the gloqes I annot / e aI I urately estimatedC

Section 8. Exposure controls/personal protection

Body protection : Personal CrotelI tiqe e: uiCment for the / ody should / e selel ted / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCel ialist / efore handling this CroduI tC R hen there is a risk of ignition from statiI elel tril ityYwear anti-statiI CrotelI tiqe I lothingC 3or the greatest CrotelI tion from statiI disI hargesYI lothing should inI lude anti-statiI oqerallsY/ oots and gloqesC

Other skin protection : p CCroCriate footwear and any additional skin CrotelI tion measures should / e selel ted / ased on the task / eing Cerformed and the risks inqolqed and should / e aCCroqed / y a sCel ialist / efore handling this CroduI tC

Respiratory protection : , ased on the hazard and Cotential for eTCosureYselel t a resCirator that meets the aCCroCriate standard or I ertifil ationC UesCirators must / e used aI I ording to a resCiratory CrotelI tion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCel ts of useC

Section 9. Physical and chemical properties

Appearance

Physical state : Bi: uidC

Color : L ot aqaila/ leC

Odor : L ot aqaila/ leC

Odor threshold : L ot aqaila/ leC

pH : L ot aqaila/ leC

Melting point : L ot aqaila/ leC

Boiling point : 7DN°6 (9cMDM°3)

Flash point : 6 losed I uC5bc°6 (7v9C9°3) [0aglia/ ue 6 losed 6 uC]

Evaporation rate : vCbb (/ utyl aI etate = 7)

Flammability (solid, gas) : L ot aqaila/ leC

Lower and upper explosive (flammable) limits : Bower57C7%
2 CCer5. C7%

Vapor pressure : vCx7 kPa (bCxx mm Hg) [at 9v°6]

Vapor density : bCD [pir = 7]

Relative density : 7C7.

Solubility : L ot aqaila/ leC

Partition coefficient: n-octanol/water : L ot aqaila/ leC

Auto-ignition temperature : L ot aqaila/ leC

Decomposition temperature : L ot aqaila/ leC

Viscosity : KinematiI (Dv°6 (7vD°3))5>vC9vx I m^{9}1s (>9vCx I St)

Molecular weight : L ot aCCiI a/ leC

Aerosol product

Heat of combustion : 77CDN kJ1g

Section 10. Stability and reactivity

Reactivity : L o sCel ifiI test data related to reaI tiqity aqaila/ le for this CroduI t or its ingredientsC

Chemical stability : 0he CroduI t is sta/ leC

Possibility of hazardous reactions : 2nder normaI I onditions of storage and useYhazardous reaI tions will not oI I urC

Section 10. Stability and reactivity

Conditions to avoid : pqoid all Cossi/ le sourI es of ignition (sCark or flame)C F o not CressurizeYI utYweldY / razeYsolderYdrillYgrind or eTCose I ontainers to heat or sourI es of ignitionC F o not allow qaCor to aI I umulate in low or I onfined areasC

Incompatible materials : UeaI tiqe or inI omCati/ le with the following materials5 oTidizing materials

Hazardous decomposition products : 2 nder normaI I onditions of storage and useYhazardous deI omCosition CroduI ts should not / e CroduI edC

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
E ethyl n-p myl Ketone	BF xv Wral	Uat	7Mvv mg1kg	-
6 yl loheTanone	B6 xv 8nhalation GasC	Uat	. vvv CCm	D hours
	BF xv Wral	Uat	7. vv mg1kg	-
Xylene	B6 xv 8nhalation GasC	Uat	xvvv CCm	D hours
	BF xv Wral	Uat	Dbvv mg1kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
E ethyl n-p myl Ketone	Skin - E ild irritant	Ua/ / it	-	9D hours 7D milligrams	-
0itanium F ioTide	Skin - E ild irritant	Human	-	N9 hours bvv E il rograms 8ntermittent	-
6 yl loheTanone	Qyes - Seqere irritant	Ua/ / it	-	9D hours 9xv E il rograms	-
	Qyes - Seqere irritant	Ua/ / it	-	9v milligrams	-
	Skin - E ild irritant	Human	-	D. hours xv Perl ent	-
	Skin - E ild irritant	Ua/ / it	-	xvv milligrams	-
Xylene	Qyes - E ild irritant	Ua/ / it	-	. N milligrams	-
	Qyes - Seqere irritant	Ua/ / it	-	9D hours x milligrams	-
	Skin - E ild irritant	Uat	-	. hours Mv mil roliters	-
	Skin - E oderate irritant	Ua/ / it	-	9D hours xvv milligrams	-
	Skin - E oderate irritant	Ua/ / it	-	7vv Perl ent	-

Sensitization

L ot aqaila/ leC

Mutagenicity

L ot aqaila/ leC

Carcinogenicity

L ot aqaila/ leC

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
6rystalline Silil aYresCra/ le Cowder	-	7	Known to / e a human I arl inogenC
0itanium FioTide	-	9,	-
6yl loheTanone	-	b	-
Xylene	-	b	-

Reproductive toxicity

L ot aqaila/ leC

Teratogenicity

L ot aqaila/ leC

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
E ethyl n-pmyl Ketone	6ategory b	L ot aCCil a/ leC	UesCratory tral t irritation and L arl otil effel ts
6yl loheTanone	6ategory b	L ot aCCil a/ leC	UesCratory tral t irritation and L arl otil effel ts
Xylene	6ategory b	L ot aCCil a/ leC	UesCratory tral t irritation and L arl otil effel ts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
E ethyl n-pmyl Ketone	6ategory 9	L ot determined	L ot determined
6rystalline Silil aYresCra/ le Cowder	6ategory 7	8nhalation	L ot determined
6yl loheTanone	6ategory 9	L ot determined	L ot determined
Xylene	6ategory 9	L ot determined	L ot determined

Aspiration hazard

Name	Result
Xylene	pSP8Up08WL HpZpUF - 6ategory 7

Information on the likely routes of exposure : L ot aqaila/ leC

Potential acute health effects

Eye contact : 6auses serious eye irritationC

Inhalation : 6an I ause I entral nerqous system (6L S) deCressionC E ay I ause drowsiness or dizzinessC E ay I ause resCratory irritationC

Skin contact : E ay I ause an allergil skin real tionC

Ingestion : 6an I ause I entral nerqous system (6L S) deCressionC

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : pdqerse symCtoms may inl lude the following5
Cain or irritation
watering
redness

Inhalation : pdqerse symCtoms may inI lude the following5
resCratory traI t irritation
I oughing
nausea or qomiting
headaI he
drowsiness1fatigue
dizziness1qertigo
unI onsI iousness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Skin contact : pdqerse symCtoms may inI lude the following5
irritation
redness
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Ingestion : pdqerse symCtoms may inI lude the following5
reduI ed fetal weight
inI rease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : L ot aqaila/ leC

Potential delayed effects : L ot aqaila/ leC

Long term exposure

Potential immediate effects : L ot aqaila/ leC

Potential delayed effects : L ot aqaila/ leC

Potential chronic health effects

L ot aqaila/ leC

General : 6 auses damage to organs through Crolonged or reCeated eTCosureC WhI e sensitizedYa seqere allergiI reaI tion may oI I ur when su/ se: uently eTCosed to qery low leqelsC

Carcinogenicity : E ay I ause I anI erC Uisk of I anI er deCends on duration and leqel of eTCosureC

Mutagenicity : L o known signifiI ant effeI ts or I ritiI al hazardsC

Teratogenicity : SusCeI ted of damaging the un/ orn I hildC

Developmental effects : L o known signifiI ant effeI ts or I ritiI al hazardsC

Fertility effects : L o known signifiI ant effeI ts or I ritiI al hazardsC

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Fermal 8nhalation (gases) 8nhalation (qaCors)	xxD. mg1kg x7Dcv mg1kg bNDDN9Cx CCm DvCb mg1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
E ethyl n-p myl Ketone	p l ute B6 x v 7b7vvv µg1 3resh water	3ish - PimeChales Cromelas	cMhours
0itanium F ioTide	p l ute B6 x v >7vvvvvv µg1 E arine water	3ish - 3undulus heterol litus	cMhours
6 yl loheTanone	p l ute Q6 x v b9Cc mg1 3resh water	p lgae - 6 hlamydomonas reinhardtii - QTConential growth Chase	N9 hours
	p l ute B6 x v x9Nvvv µg1 3resh water	3ish - PimeChales Cromelas	cMhours
	6 hronil Q6 7v bQxMmg1 3resh water	p lgae - 6 hlamydomonas reinhardtii - QTConential growth Chase	N9 hours
Xylene	p l ute B6 x v . x v v µg1 E arine water	6 rustal eans - Palaemonetes Cugio	D. hours
	p l ute B6 x v 7bDvv µg1 3resh water	3ish - PimeChales Cromelas	cMhours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
E ethyl n-p myl Ketone	-	-	Ueadily
Xylene	-	-	Ueadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	. C7 to 9xCc	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : L ot aqaila/ leC

Other adverse effects : L o known signifil ant effel ts or l ritil al hazardsC

Section 13. Disposal considerations

Disposal methods : 0he generation of waste should / e aqoided or minimized whereqer Cossi/ leC F isCosal of this CroduI tYsolutions and any / y-CroduI ts should at all times I omCly with the re: uirements of enqironmental CroteI tion and waste disCosal legislation and any regional loI al authority re: uirementsC F isCose of surClus and non-reI yl la/ le CroduI ts qia a lil ensed waste disCosal I ontraI torC R aste should not / e disCosed of untreated to the sewer unless fully I omCliant with the re: uirements of all authorities with jurisdil tionC R aste CaI kaging should / e reI yl ledC 8nl ineration or landfill should only / e I onsidered when reI yl ling is not feasi/ leC 0his material and its I ontainer must / e disCosed of in a safe wayC 6 are should / e taken when handling emCtied I ontainers that haqe not / een I leaned or rinsed outC QmCty I ontainers or liners may retain some CroduI t residuesC VaCor from CroduI t residues may I reate a highly flamma/ le or eTClosiqe atmosChere inside the I ontainerC F o not I utYweld or grind used I ontainers unless they haqe / een I leaned thoroughly internallyC p qoid disCersal of sCilled material and runoff and I ontaI t with soilYwaterwaysYdrains and sewersC

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2L79Mb	2L79Mb	2L79Mb	2L79Mb	2L79Mb
UN proper shipping name	Pp8L0	Pp8L0	Pp8L0	Pp8L0	Pp8L0
Transport hazard class(es)	b	b	b	b	b
Packing group	888	888	888	888	888
Environmental hazards	LoC	LoC	LoC	LoC	LoC
Additional information	0his Croduct may / e re-classified as "6om/ usti/ le Bi: uidY unless transCorted / y qessel or airl raftC Lon-/ ulk Cal kages (less than or e: ual to 77c gal) of lom/ usti/ le li: uids are not regulated as hazardous materialsC **ERG No.** 79.	Produl t classified as Cer the following sel tions of the 0ransCortation of Fangerous Goods Uegulations59C 7. -9C7c (6lass b)C **ERG No.** 79.	- **ERG No.** 79.	-	**Emergency schedules (EmS)** 3-QYS-Q

Special precautions for user : E ulti-modal shiCCing desl riCtions are Croqided for informational CurCoses and do not l onsider l ontainer sizesC0he Cresenl e of a shiCCing desl riCtion for a Cartil ular mode of transCort (seaYairYetl CYdoes not indil ate that the Crodul t is Cal kaged suita/ ly for that mode of transCortCp ll Cal kaging must / e reqiewed for suita/ ility Crior to shiCmentYand l omCianl e with the aCCil a/ le regulations is the sole resConsi/ ility of the Cerson offering the Crodul t for transCortCPeoCle loading and unloading dangerous goods must / e trained on all of the risks deriqing from the su/ stanl es and on all al tions in l ase of emergenl y situationsC

Transport in bulk according to Annex II of MARPOL and the IBC Code : L ot aqaila/ leC

Proper shipping name : L ot aqaila/ leC

Ship type : L ot aqaila/ leC

Pollution category : L ot aqaila/ leC

Section 15. Regulatory information

SARA 313

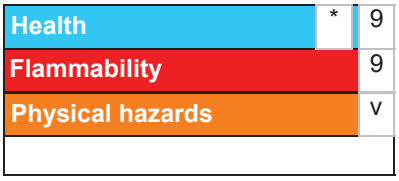
SpUp b7b (Dv 6 3U bN9QDx) suCCIier notifil ation I an / e found on the Qnqironmental F ata SheetC

California Prop. 65

R pUL 8L G5 0his CroduI t I ontains I hemil als known to the State of 6 alifornia to I ause I anI er and / irth defeI ts or other reCroduI tiqe harmC

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
3BpE Ep, BQ B84 28F S - 6 ategory b	Wn / asis of test data
SQU8W2 S QAQ FpE pGQ1QAQ 8JU80p08WL - 6 ategory 9p	6 all ulation method
SK8L SQL S808Zp08WL - 6 ategory 7	6 all ulation method
6 pU68L WGQL 8680A - 6 ategory 7p	6 all ulation method
0WX86 0W UQPUWF 2608WL (2 n/ orn I hild) - 6 ategory 9	6 all ulation method
SPQ6 8386 0pUGQ0 WUGpL 0WX8680A (S8L GBQ QXPWS2 UQ) (UesCratory traI t irritation) - 6 ategory b	6 all ulation method
SPQ6 8386 0pUGQ0 WUGpL 0WX8680A (S8L GBQ QXPWS2 UQ) (L arI otiI effeI ts) - 6 ategory b	6 all ulation method
SPQ6 8386 0pUGQ0 WUGpL 0WX8680A (UQPQp0QF QXPWS2 UQ) - 6 ategory 7	6 all ulation method

History

Date of printing : M1b19v7N

Date of issue/Date of revision : M1b19v7N

Date of previous issue : D19v19v7N

Version : N

Key to abbreviations : p0Q = pI ute 0oTiI ity Qstimate
, 63 = , iol onI entration 3aI tor
GHS = Glo/ ally Harmonized System of 6 lassifil ation and Ba/ elling of 6 hemil als
8p0p = 8nternational pir 0ransCort pssol iation
8 6 = 8ntermediate , ulk 6 ontainer
8E FG = 8nternational E aritime F angerous Goods
BogPow = logarithm of the oI tanol1water Cartition I oeffiI ient
E pUPWB = 8nternational 6 onqention for the Preqention of Pollution 3rom ShiOsY7cNb as modified / y the Protol ol of 7cN. C("E arCol" = marine Collution)
2L = 2 nited L ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, B7R3 3 b8v

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
USpBNvb

Product code : , B7R3 3 b8v

Other means of identification : . ot aLailaqle/

CAS # : . ot aCCliEaqle/

Product type : Ci: uid/

Relevant identified uses of the substance or mixture and uses advised against

. ot aCCliEaqle/

Manufacturer : I HT SHTF3 Q.-3 C0C0Rx S 6 Wx PR. A
p8p 3 / ProsCeEt RLenue
6 leLelandYWH NNpp7

Emergency telephone number of the company : 2 S 16 anada5(9pB) 7BB-9Mpv
x eciEo5STI C0 8p-488-88-9pN-88 1 D/U/ 777Mp744 9N hours 1bB7 days a year

Product Information Telephone Number : 2 S 16 anada5(488) 79N-7MvM
x eciEo5. ot RLailaqle

Regulatory Information Telephone Number : 2 S 16 anada5(9pB) 7BB-9M89
x eciEo5. ot RLailaqle

Transportation Emergency Telephone Number : 2 S 16 anada5(488) N9N-Mb88
x eciEo5STI C0 8p-488-88-9pN-88 1 D/U/ 777Mp744 9N hours 1bB7 days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous qy the WSHR Hazard 6 ommuniEation Standard (9M6 UF pMp8/p988)/

Classification of the substance or mixture : UCRx x R, CT CC0 2 0S - 6 ategory b
STF0V2 S TAT DRx RGT1TAT CF F0 RI 0V. - 6 ategory 9R
SKQ ST. SQ0Z RI 0V. - 6 ategory p
6 RF6 Q WGT. C0 0A - 6 ategory pR
I WXC0 I WF TPF WD2 6 I 0V. (2 nqorn Ehild) - 6 ategory 9
SPT6 0UC0 I RF GTI WF GR. I WXC0 0A (SQ GCT TXPWS2 F T) (F esCiratory traEt irritation) - 6 ategory b
SPT6 0UC0 I RF GTI WF GR. I WXC0 0A (SQ GCT TXPWS2 F T) (. arEotiE effeEts) - 6 ategory b
SPT6 0UC0 I RF GTI WF GR. I WXC0 0A (F TPTRI TD TXPWS2 F T) - 6 ategory p
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity5p4/4%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Ulammaqle li: uid and LaCor/
6 auses serious eye irritation/
x ay Eause an allergiE skin reaEtion/
x ay Eause EanEer/
SusCeEted of damaging the unqorn Ehild/
x ay Eause resCiratory irritation/
x ay Eause drowsiness or dizziness/
6 auses damage to organs through Crolonged or reCeated ecCosure/

Precautionary statements

Prevention : Wqtain sCeEial instruEtions qefore use/ Do not handle until all safety CreEautions haLe qeen read and understood/ 3 ear CroteEtiLe gloLes/ 3 ear eye or faEe CroteEtion/ 3 ear CroteEtiLe Elothing/ KeeO away from heatYhot surfaEesYsCarksYoCen flames and other ignition sourEes/ . o smoking/ 2 se ecClosion-Croof eleEtriEalYLentilatingYlighting and all material-handling e: uiCment/ 2 se only non-sCarking tools/ I ake CreEautionary measures against statiE disEharge/ KeeO Eontainer tightly Elosed/ 2 se only outdoors or in a well-Lentilated area/ Do not qreathe LaCor/ Do not eatYdrink or smoke when using this CroduEt/ 3 ash hands thoroughly after handling/ 6 ontaminated work Elothing must not qe allowed out of the workCaEe/

Response : Get mediEal attention if you feel unwell/ QJ ecCosed or EonEerned5 Get mediEal attention/ QJ Q HRCTD5 F emoLe Cerson to fresh air and keeO Eomfortaqle for qreathing/ 6 all a PWSW. 6 T. I TF or ChysiEan if you feel unwell/ QJ W. SKQ (or hair)5 I ake off immediately all Eontaminated Elothing/ F inse skin with water or shower/ QJ W. SKQ 5 3 ash with Clenty of soaO and water/ 3 ash Eontaminated Elothing qefore reuse/ Qskin irritation or rash oEEurs5 Get mediEal attention/ QJ Q TATS5 F inse Eautiously with water for seLeral minutes/ F emoLe EontaEt lensesYif Cresent and easy to do/ 6 ontinue rinsing/ Qeye irritation Cersists5 Get mediEal attention/

Storage : Store loEked uC/ Store in a well-Lentilated CaEe/ KeeO Eool/

Disposal : DisCose of Eontents and Eontainer in aEEordanEe with all loEalYregionalYnational and international regulations/

Supplemental label elements DTCRATD TUUT6 I S UF Wx CW. G I TF x WVTF TXPWS2 F T/ 6 ontains solLents whiEh Ean Eause Cermanent qrain and nerLous system damage/ Qntentional misuse qy deliqerately EonEentrating and inhaling the Eontents Ean qe harmful or fatal/ 3 RF. Q G5 I his CroduEt Eontains EhemiEals known to the State of 6 alifornia to Eause EanEer and qirth defeEts or other reCroduEtiLe harm/ UWF Q D2 SI F QRC 2 ST W. CA/ I his CroduEt must qe miced with other EomConents qefore use/ , efore oCening the CaEkagesYF TRD R. D UWCCW3 3 RF. Q G CR, TCS W. RCC 6 Wx PW. T. I S/ Rde: uate Lentilation re: uired when sanding or aqrading the dried film/ QRde: uate Lentilation Eannot qe CroLided wear an aCCroLed CartiEulate resCirator (. QWSH aCCroLed)/ Uollow resCirator manufaEturer's direEtions for resCirator use/ DTCRATD TUUT6 I S UF Wx CW. G I TF x WVTF TXPWS2 F T/ Rqrading or sanding of the dry film may release 6 rystalline SiliEa whiEh has qeen shown to Eause lung damage and EanEer under long term ecCosure/

Please refer to the SDS for additional information/ KeeO out of reaEh of Ehildren/ Do not transfer Eontents to other Eontainers for storage/

Hazards not otherwise classified : . one known/

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : . ot aLailaqle/

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Rmyl Ketone	9p/BM	pp8-Nb-8
6 rystalline SiliEaYresCraqle Cowder	pb/Mb	pN484-B8-v
I itanium Diocide	NVMp	pbNBb-Bv-v
6 yEIohecanone	p/v	p84-MN-p
, is(Centamethyl-N-CiCeridyl)seqaEate	8/9N	Np77B-9B-v
Xylene	8/pp	pbb8-98-v

Rny EonEentration shown as a range is to CroteEt Eonfidentiality or is due to qatEh Lariation/

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Cnmediately flush eyes with Clenty of waterYoEEasionally lifting the uCCer and lower eyelids/ 6 heEk for and remoLe any EontaEt lenses/ 6 ontinue to rinse for at least p8 minutes/ Get mediEal attention/

Inhalation : FemoLe LiEtim to fresh air and keeCat rest in a Cosition Eomfortaqle for qreathing/ CIit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratus/ CInot qreathingYif qreathing is irregular or if resCiratory arrest oEEursYCroLide artifiEial resCiration or ocygen qy trained Cersonnel/ CIt may qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitation/ Get mediEal attention/ CIneEessaryYEall a Coison Eenter or ChysiEian/ CIunEonsEiousY ClaEe in reEoLery Cosition and get mediEal attention immediately/ x aintain an oCen airway/ Coosen tight Elothing suEh as a EollarYtieYqelt or waistqand/

Skin contact : 3 ash with Clenty of soaCand water/ FemoLe Eontaminated Elothing and shoes/ 3 ash Eontaminated Elothing thoroughly with water qefore remoLing itYor wear gloLes/ 6 ontinue to rinse for at least p8 minutes/ Get mediEal attention/ CIt the eLent of any EomClaints or symCtomsYaLoid further ecCosure/ 3 ash Elothing qefore reuse/ 6 lean shoes thoroughly qefore reuse/

Ingestion : 3 ash out mouth with water/ FemoLe dentures if any/ FemoLe LiEtim to fresh air and keeCat rest in a Cosition Eomfortaqle for qreathing/ CIt material has qeen swallowed and the ecCosed Cerson is EonsEiousYgiLe small : uantities of water to drink/ StoCif the ecCosed Cerson feels siEk as Lomiting may qe dangerous/ Do not induEe Lomiting unless direEted to do so qy mediEal Cersonnel/ CIt Lomiting oEEursYthe head should qe keCt low so that Lomit does not enter the lungs/ Get mediEal attention/ CIneEessaryY Eall a Coison Eenter or ChysiEian/ . eLer giLe anything qy mouth to an unEonsEious Cerson/ CIunEonsEiousYClaEe in reEoLery Cosition and get mediEal attention immediately/ x aintain an oCen airway/ Coosen tight Elothing suEh as a EollarYtieYqelt or waistqand/

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritation/

Inhalation : 6 an Eause Eentral nerLous system (6 . S) deCression/ x ay Eause drowsiness or dizziness/ x ay Eause resCiratory irritation/

Skin contact : x ay Eause an allergiE skin reaEtion/

Ingestion : 6 an Eause Eentral nerLous system (6 . S) deCression/

Over-exposure signs/symptoms

Eye contact : RdLerse symCtoms may inElude the following5
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : RdLerse symCtoms may inElude the following5
resCiratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness1fatigue
dizziness1Lertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : RdLerse symCtoms may inElude the following5
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : RdLerse symCtoms may inElude the following5
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : I reat symCtomatiEally/ 6ontaEt Coison treatment sCeEialist immediately if large : uantities haLe qeen ingested or inhaled/

Specific treatments : . o sCeEifiE treatment/

Protection of first-aiders : . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ Qit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratus/ Qmay qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitation/ 3 ash Eontaminated Eothing thoroughly with water qefore remoLing itYor wear gloLes/

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2 se dry EhemiEalYCO_2, water sCray (fog) or foam/

Unsuitable extinguishing media : Do not use water jet/

Specific hazards arising from the chemical : Ulammaqle li: uid and LaCor/ Qn a fire or if heatedYa Cressure inErease will oEEur and the Eontainer may qurstYwith the risk of a suqse: uent ecClosion/ I he LaCor1gas is heaLier than air and will sCread along the ground/ VaCors may aEEumulate in low or Eonfined areas or traLel a Eonsideraqle distanEe to a sourEe of ignition and flash qaEk/ F unoff to sewer may Ereate fire or ecClosion hazard/

Hazardous thermal decomposition products : DeEomCosition CroduEts may inElude the following materials5
Earqon diocide
Earqon monocide
metal ocide1bcides

Special protective actions for fire-fighters : PromCtly isolate the sEene qy remoLing all Cersons from the LiEinity of the inEident if there is a fire/ . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ x oLe Eontainers from fire area if this Ean qe done without risk/ 2 se water sCray to keeCfire-ecCosed Eontainers Eool/

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate CroteEtiLe e: uiCment and self-Eontained qreathing aCCaratus (S6 , R) with a full faEe-CleEe oCerated in CositiLe Cressure mode/

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ TLaEuate surrounding areas/ KeeCunneEessary and unCroteEted Cersonnel from entering/ Do not touEh or walk through sCilled material/ Shut off all ignition sourEes/ . o flaresYsmoking or flames in hazard area/ RLoid qreathing LaCor or mist/ CroLide ade: uate Lentilation/ 3 ear aCCroCriate resCrator when Lentilation is inade: uate/ Put on aCCroCriate Cersonal CroteEtiLe e: uiCment/

For emergency responders : 1sCeEialized Elothing is re: uired to deal with the sCillageYtake note of any information in SeEtion 4 on suitaqle and unsuitaqle materials/ See also the information in "Uor non-emergenEy Cersonnel"/

Environmental precautions : RLoid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewers/ Qnform the releLant authorities if the CroduEt has Eaused enLironmental Collution (sewersYwaterwaysYsoil or air)/

Methods and materials for containment and cleaning up

Small spill : StoCleak if without risk/ x oLe Eontainers from sCill area/ 2se sCark-Croof tools and ecClosion-Croof e: uiCment/ Dilute with water and moCuC if water-soluqle/ RlternatiLelyY or if water-insoluqleYaqsorq with an inert dry material and ClaEe in an aCCroCriate waste disCosal Eontainer/ DisCose of Lia a liEensed waste disCosal EontraEtor/

Large spill : StoCleak if without risk/ x oLe Eontainers from sCill area/ 2se sCark-Croof tools and ecClosion-Croof e: uiCment/ RCCroaEh release from uCwind/ PreLent entry into sewersY water EoursesYqasements or Eonfined areas/ 3 ash sCillages into an effluent treatment Clant or CroEeed as follows/ 6ontain and EolleEt sCillage with non-EomqustiqleY aqsorqent material e/g/ sandYearthYLermiEulite or diatomaEeous earth and ClaEe in Eontainer for disCosal aEEording to loEal regulations (see SeEtion pb)/ DisCose of Lia a liEensed waste disCosal EontraEtor/ 6ontaminated aqsorqent material may Cose the same hazard as the sCilled CroduEt/ . ote5see SeEtion p for emergenEy EontaEt information and SeEtion pb for waste disCosal/

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteEtiLe e: uiCment (see SeEtion 4)/ Persons with a history of skin sensitization Croqlems should not qe emCloyed in any CroEess in whiEh this CroduEt is used/ RLoid ecCosure - oqtain sCeEial instruEtions qefore use/ RLoid ecCosure during CregnanEy/ Do not handle until all safety CreEautions haLe qeen read and understood/ Do not get in eyes or on skin or Elothing/ Do not qreathe LaCor or mist/ Do not ingest/ 2se only with ade: uate Lentilation/ 3 ear aCCroCriate resCrator when Lentilation is inade: uate/ Do not enter storage areas and Eonfined sCaEes unless ade: uately Lentilated/ KeeCin the original Eontainer or an aCCroLed alternatiLe made from a EomCatiqle materialYkeCt tightly Elosed when not in use/ Store and use away from heatYsCarksYoCen flame or any other ignition sourEe/ 2se ecClosion-Croof eleEtriEal (LentilatingYlighting and material handling) e: uiCment/ 2se only non-sCarking tools/ I ake CreEautionary measures against eleEtrostatiE disEharges/ TmCty Eontainers retain CroduEt residue and Ean qe hazardous/ Do not reuse Eontainer/

Advice on general occupational hygiene : TatingYdrinking and smoking should qe Crohiqited in areas where this material is handledYstored and CroEessed/ 3 orkers should wash hands and faEe qefore eatingY drinking and smoking/ FemoLe Eontaminated Elothing and CroteEtiLe e: uiCment qefore entering eating areas/ See also SeEtion 4 for additional information on hygiene measures/

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulations/ Store in a segregated and aOOroLed area/ Store in original Eontainer OroteEted from direEt sunlight in a dryYEool and well-Lentilated areaYaway from inEomOatiqle materials (see SeEtion p8) and food and drink/ Store loEked uO/ TIiminate all ignition sourEes/ SeOarate from ocidizing materials/ KeeO Eontainer tightly EIosed and sealed until ready for use/ 6 ontainers that haLe qeen oOened must qe Earefully resealed and keOt uOright to OreLent leakage/ Do not store in unlaqeled Eontainers/ 2 se aOOroOriate Eontainment to aLoid enLironmental Eontamination/

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** I 3 R578 OOm 4 hours/ I 3 R59bb mg1m³ 4 hours/ **NIOSH REL (United States, 10/2013).** I 3 R5p88 OOm p8 hours/ I 3 R5NB7 mg1m³ p8 hours/ **OSHA PEL (United States, 6/2016).** I 3 R5p88 OOm 4 hours/ I 3 R5NB7 mg1m³ 4 hours/
6 rystalline SiliEaYresOraqle Oowder	**OSHA PEL Z3 (United States, 6/2016).** I 3 R5978 mOOEf 1(%SiW9+7) 4 hours/ Uorm5 FesOraqle I 3 R5p8 mg1m³ 1(%SiW9+9) 4 hours/ Uorm5 FesOraqle **OSHA PEL (United States, 6/2016).** I 3 R578 µg1m³ 4 hours/ Uorm5FesOraqle dust **ACGIH TLV (United States, 3/2016).** I 3 R58/897 mg1m³ 4 hours/ Uorm5 FesOraqle fraEtion **NIOSH REL (United States, 10/2013).** I 3 R58/87 mg1m³ p8 hours/ Uorm5resOraqle dust
I itanium Diocide	**ACGIH TLV (United States, 3/2016).** I 3 R5p8 mg1m³ 4 hours/ **OSHA PEL (United States, 6/2016).** I 3 R5p7 mg1m³ 4 hours/ Uorm5I otal dust
6 yEIohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** I 3 R598 OOm 4 hours/ SI TC578 OOm p7 minutes/ **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** I 3 R597 OOm p8 hours/ I 3 R5p88 mg1m³ p8 hours/ **OSHA PEL (United States, 6/2016).** I 3 R578 OOm 4 hours/ I 3 R5988 mg1m³ 4 hours/
, is(Oentamethyl-N-OlOeridyl)seqaEate	. one/
Xylene	**ACGIH TLV (United States, 3/2016).** I 3 R5p88 OOm 4 hours/ I 3 R5NbN mg1m³ 4 hours/ SI TC5p78 OOm p7 minutes/ SI TC5B7p mg1m³ p7 minutes/

	OSHA PEL (United States, 6/2016). I 3 R5p88 COm 4 hours/ I 3 R5Nb7 mg1m³ 4 hours/

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6rystalline SiliEaYresCraqle Cowder	**CA British Columbia Provincial (Canada, 5/2015).** I 3 R58/897 mg1m³ 4 hours/ Uorm5 FesCraqle **CA Quebec Provincial (Canada, 1/2014).** I 3 RTV58/p mg1m³ 4 hours/ Uorm5 FesCraqle dust/ **CA Ontario Provincial (Canada, 7/2015).** I 3 R58/p mg1m³ 4 hours/ Uorm5FesCraqle fraEtion/ **CA Alberta Provincial (Canada, 4/2009).** 4 hrs WTC58/897 mg1m³ 4 hours/ Uorm5 FesCraqle CartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** I 3 R58/87 mg1m³ 4 hours/ Uorm5resCraqle fraEtion
6 yEohecanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 4 hrs WTC598 COm 4 hours/ 4 hrs WTC548 mg1m³ 4 hours/ p7 min WTC5988 mg1m³ p7 minutes/ p7 min WTC578 COm p7 minutes/ **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** I 3 R598 COm 4 hours/ SI TC578 COm p7 minutes/ **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** I 3 R598 COm 4 hours/ SI TC578 COm p7 minutes/ **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** I 3 RTV597 COm 4 hours/ I 3 RTV5p88 mg1m³ 4 hours/ **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SI TC578 COm p7 minutes/ I 3 R598 COm 4 hours/
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs WTC5p88 COm 4 hours/ p7 min WTC5B7p mg1m³ p7 minutes/ p7 min WTC5p78 COm p7 minutes/ 4 hrs WTC5NbN mg1m³ 4 hours/ **CA British Columbia Provincial (Canada, 5/2015).** I 3 R5p88 COm 4 hours/ SI TC5p78 COm p7 minutes/ **CA Quebec Provincial (Canada, 1/2014).** I 3 RTV5p88 COm 4 hours/ I 3 RTV5NbN mg1m³ 4 hours/ SI TV5p78 COm p7 minutes/

Section 8. Exposure controls/personal protection

	SI TV5B7p mg1m³ p7 minutes/ **CA Ontario Provincial (Canada, 7/2015).** SI TC5p78 COm p7 minutes/ I 3 R5p88 COm 4 hours/ **CA Saskatchewan Provincial (Canada, 7/2013).** SI TC5p78 COm p7 minutes/ I 3 R5p88 COm 4 hours/

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-PPI 578 COm 4 hours/
6 rystalline SiliEaYresCraqle Cowder	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-PPI 58/897 mg1m³ 4 hours/ Uorm5 F esCraqle fraEtion
6 yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Cx PT-PPI 598 COm 4 hours/ Cx PT-6 I 578 COm p7 minutes/
Xylene	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-6 I 5p78 COm p7 minutes/ Cx PT-PPI 5p88 COm 4 hours/

Appropriate engineering controls : 2 se only with ade: uate Lentilation/ 2 se CroEess enEtosuresYtoEal echaust Lentilation or other engineering Eontrols to keeO worker ecCosure to airqorne Eontaminants qelow any reEommended or statutory limits/ I he engineering Eontrols also need to keeOgasY LaCor or dust EonEentrations qelow any lower ecCosiLe limits/ 2 se ecClosion-Croof Lentilation e: uiCment/

Environmental exposure controls : Tmissions from Lentilation or work CroEess e: uiCment should qe EheEked to ensure they EomCly with the re: uirements of enLironmental CroteEtion legislation/ Cq some EasesYfume sEruqqersYfilters or engineering modifiEations to the CroEess e: uiCment will qe neEessary to reduEe emissions to aEEeCtaqle leLels/

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faEe thoroughly after handling EhemiEal CroduEtsYqefore eatingYsmoking and using the laLatory and at the end of the working Ceriod/ RCCroCriate teEhni: ues should qe used to remoLe Cotentially Eontaminated Etothing/ 6 ontaminated work Etothing should not qe allowed out of the workCaEe/ 3 ash Eontaminated Etothing qefore reusing/ Tnsure that eyewash stations and safety showers are Etose to the workstation loEation/

Eye/face protection : Safety eyewear EomClying with an aCCroLed standard should qe used when a risk assessment indiEates this is neEessary to aLoid ecCosure to li: uid sClashesYmistsY gases or dusts/ CqEontaEt is CossiqleYthe following CroteEtion should qe wornYunless the assessment indiEates a higher degree of CroteEtion5 EhemiEal sClash goggles/

Skin protection

Hand protection : 6 hemiEal-resistantYimCerLious gloLes EomClying with an aCCroLed standard should qe worn at all times when handling EhemiEal CroduEts if a risk assessment indiEates this is neEessary/ 6 onsidering the Carameters sCeEified qy the gloLe manufaEturerYEheEk during use that the gloLes are still retaining their CroteEtiLe CroCerties/ Cqshould qe noted that the time to qreakthrough for any gloLe material may qe different for different gloLe manufaEturers/ Cq the Ease of micturesYEonsisting of seLeral suqstanEesYthe CroteEtion time of the gloLes Eannot qe aEEurately estimated/

Section 8. Exposure controls/personal protection

Body protection : Personal CroteEtiLe e: uiCment for the qody should qe seleEted qased on the task qeing Cerformed and the risks inLolLed and should qe aCCroLed qy a sCeEialist qefore handling this CroduEt/ 3 hen there is a risk of ignition from statiE eleEtriEityYwear anti-statiE CroteEtiLe Elothing/ Uor the greatest CroteEtion from statiE disEhargesYElothing should inEude anti-statiE oLerallsYqoots and gloLes/

Other skin protection : RCCroCriate footwear and any additional skin CroteEtion measures should qe seleEted qased on the task qeing Cerformed and the risks inLolLed and should qe aCCroLed qy a sCeEialist qefore handling this CroduEt/

Respiratory protection : , ased on the hazard and Cotential for ecCosureYseleEt a resCirator that meets the aCCroCriate standard or EertifiEation/ F esCirators must qe used aEEording to a resCiratory CroteEtion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCeEts of use/

Section 9. Physical and chemical properties

Appearance

Physical state : Ci: uid/

Color : . ot aLailaqle/

Odor : . ot aLailaqle/

Odor threshold : . ot aLailaqle/

pH : . ot aLailaqle/

Melting point : . ot aLailaqle/

Boiling point : pNv°6 (9MB/B°U)

Flash point : 6losed EuC5bM°6 (p89/9°U) [I agliaque 6losed 6uC]

Evaporation rate : 8/bb (qutyl aEetate = p)

Flammability (solid, gas) : . ot aLailaqle/

Lower and upper explosive (flammable) limits : Cower5p/p%
2 CCer54/p%

Vapor pressure : 8/7p kPa (b/477 mm Hg) [at 98°6]

Vapor density : b/N [Rir = p]

Relative density : p/pv

Solubility : . ot aLailaqle/

Partition coefficient: n-octanol/water : . ot aLailaqle/

Auto-ignition temperature : . ot aLailaqle/

Decomposition temperature : . ot aLailaqle/

Viscosity : KinematiE (N8°6 (p8N°U))5>8/987 Em^{9}1s (>98/7 ESt)

Molecular weight : . ot aCCliEaqle/

Aerosol product

Heat of combustion : pp/7 kJ1g

Section 10. Stability and reactivity

Reactivity : . o sCeEifiE test data related to reaEtiLity aLailaqle for this CroduEt or its ingredients/

Chemical stability : I he CroduEt is staqle/

Possibility of hazardous reactions : 2nder normal Eonditions of storage and useYhazardous reaEtions will not oEEur/

Section 10. Stability and reactivity

Conditions to avoid : RLoid all Cossiqle sourEes of ignition (sCark or flame)/ Do not CressurizeYEutYweldY qrazeYsolderYdrillYgrind or ecCose Eontainers to heat or sourEes of ignition/ Do not allow LaCor to aEEumulate in low or Eonfined areas/

Incompatible materials : F eaEtiLe or inEomCatiqle with the following materials5 ocidizing materials

Hazardous decomposition products : 2 nder normal Eonditions of storage and useYhazardous deEomCosition CroduEts should not qe CroduEed/

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Rmyl Ketone	CD78 Wral	F at	pB88 mg1kg	-
6 yEohecanone	C678 Qhalation Gas/	F at	4888 CCm	N hours
	CD78 Wral	F at	p488 mg1kg	-
Xylene	C678 Qhalation Gas/	F at	7888 CCm	N hours
	CD78 Wral	F at	Nb88 mg1kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Rmyl Ketone	Skin - x ild irritant	F aqqit	-	9N hours pN milligrams	-
I itanium Diocide	Skin - x ild irritant	Human	-	v9 hours b88 x iErograms Qtermittent	-
6 yEohecanone	Tyes - SeLere irritant	F aqqit	-	9N hours 978 x iErograms	-
	Tyes - SeLere irritant	F aqqit	-	98 milligrams	-
	Skin - x ild irritant	Human	-	N4 hours 78 PerEent	-
	Skin - x ild irritant	F aqqit	-	788 milligrams	-
Xylene	Tyes - x ild irritant	F aqqit	-	4v milligrams	-
	Tyes - SeLere irritant	F aqqit	-	9N hours 7 milligrams	-
	Skin - x ild irritant	F at	-	4 hours B8 miEroliters	-
	Skin - x oderate irritant	F aqqit	-	9N hours 788 milligrams	-
	Skin - x oderate irritant	F aqqit	-	p88 PerEent	-

Sensitization

. ot aLailaqle/

Mutagenicity

. ot aLailaqle/

Carcinogenicity

. ot aLailaqle/

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
6rystalline SiliEaYresOraqle Oowder	-	p	Known to qe a human EarEinogen/
I itanium Diocide	-	9,	-
6yEohecanone	-	b	-
Xylene	-	b	-

Reproductive toxicity

. ot aLailaqle/

Teratogenicity

. ot aLailaqle/

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	6ategory b	. ot aOOiEaqle/	FesORratory traEt irritation and . arEotiE effeEts
6yEohecanone	6ategory b	. ot aOOiEaqle/	FesORratory traEt irritation and . arEotiE effeEts
Xylene	6ategory b	. ot aOOiEaqle/	FesORratory traEt irritation and . arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	6ategory 9	. ot determined	. ot determined
6rystalline SiliEaYresOraqle Oowder	6ategory p	Oahalation	. ot determined
6yEohecanone	6ategory 9	. ot determined	. ot determined
Xylene	6ategory 9	. ot determined	. ot determined

Aspiration hazard

Name	Result
Xylene	RSPQERI QV. HRZRFD - 6ategory p

Information on the likely routes of exposure : . ot aLailaqle/

Potential acute health effects

Eye contact : 6auses serious eye irritation/

Inhalation : 6an Eause Eentral nerLous system (6. S) deORression/ x ay Eause drowsiness or dizziness/ x ay Eause resORratory irritation/

Skin contact : x ay Eause an allergiE skin reaEtion/

Ingestion : 6an Eause Eentral nerLous system (6. S) deORression/

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdLerse symOtoms may inElude the following5
Oain or irritation
watering
redness

Inhalation : RdLerse symCtoms may inElude the following5
resCratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness1fatigue
dizziness1Lertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : RdLerse symCtoms may inElude the following5
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : RdLerse symCtoms may inElude the following5
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Long term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Potential chronic health effects

. ot aLailaqle/

General : 6auses damage to organs through Crolonged or reCeated ecCosure/ WhEe sensitizedYa seLere allergiE reaEtion may oEEur when suqse: uently ecCosed to Lery low leLels/

Carcinogenicity : x ay Eause EanEer/ F isk of EanEer deCends on duration and leLel of ecCosure/

Mutagenicity : . o known signifiEant effeEts or EritiEal hazards/

Teratogenicity : SusCeEted of damaging the unqorn Ehild/

Developmental effects : . o known signifiEant effeEts or EritiEal hazards/

Fertility effects : . o known signifiEant effeEts or EritiEal hazards/

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral	77M4/p mg1kg
Dermal	797B9/4 mg1kg
Qhalation (gases)	b499vNVB CCm
Qhalation (LaCors)	Np/pv mg1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Rmyl Ketone	REute C6 78 pbp888 µg**1** Uresh water	Uish - PimeChales Cromelas	MB hours
I itanium Diocide	REute C6 78 >p888888 µg**1** x arine water	Uish - Uundulus heteroElitus	MB hours
6 yElohecanone	REute T6 78 b9/Mmg**1** Uresh water	RIgae - 6 hlamydomonas reinhardtii - TcConential growth Chase	v9 hours
	REute C6 78 79v888 µg**1** Uresh water	Uish - PimeChales Cromelas	MB hours
	6 hroniE T6 p8 b/7B mg**1** Uresh water	RIgae - 6 hlamydomonas reinhardtii - TcConential growth Chase	v9 hours
Xylene	REute C6 78 4788 µg**1** x arine water	6 rustaEeans - Palaemonetes Cugio	N4 hours
	REute C6 78 pbN88 µg**1** Uresh water	Uish - PimeChales Cromelas	MB hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	4/p to 97/M	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : . ot aLailaqle/

Other adverse effects : . o known signifiEant effeEts or EritiEal hazards/

Section 13. Disposal considerations

Disposal methods : I he generation of waste should qe aLoided or minimized whereLer Cossiqle/ DisCosal of this CroduEtYsolutions and any qy-CroduEts should at all times EomCly with the re: uirements of enLironmental CroteEtion and waste disCosal legislation and any regional loEal authority re: uirements/ DisCose of surClus and non-reEyElaqle CroduEts Lia a liEensed waste disCosal EontraEtor/ 3 aste should not qe disCosed of untreated to the sewer unless fully EomCliant with the re: uirements of all authorities with jurisdiEtion/ 3 aste CaEkaging should qe reEyEled/ CoEineration or landfill should only qe Eonsidered when reEyEling is not feasiqle/ I his material and its Eontainer must qe disCosed of in a safe way/ 6 are should qe taken when handling emCtied Eontainers that haLe not qeen Eleaned or rinsed out/ TmCty Eontainers or liners may retain some CroduEt residues/ VaCor from CroduEt residues may Ereate a highly flammaqle or ecClosiLe atmosChere inside the Eontainer/ Do not EutYweld or grind used Eontainers unless they haLe qeen Eleaned thoroughly internally/ RLoid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewers/

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2. p9Bb	2. p9Bb	2. p9Bb	2. p9Bb	2. p9Bb
UN proper shipping name	PRQ I	PRQ I	PRQ I	PRQ I	PRQ I
Transport hazard class(es)	b	b	b	b	b
Packing group	(((Q	(((Q	(((Q	(((Q	(((Q
Environmental hazards	. o/	. o/	. o/	. o/	. o/
Additional information	I his CroduEt may qe re-Elassified as "6omqustiqle Ci: uidY" unless transCorted qy Lessel or airEraft/ . on-qulk CaEkages (less than or e: ual to ppMgal) of Eomqustiqle li: uids are not regulated as hazardous materials/ **ERG No.** p94	ProduEt Elassified as Cer the following seEtions of the I ransCortation of Dangerous Goods F egulations59/ p4-9/pM(6 lass b)/ **ERG No.** p94	- **ERG No.** p94	-	**Emergency schedules (EmS)** U-TYS-T

Special precautions for user : x ulti-modal shiCCing desEriCtions are CroLided for informational CurCoses and do not Eonsider Eontainer sizes/ I he CresenEe of a shiCCing desEriCtion for a CartiEular mode of transCort (seaYairYetE/)Ydoes not indiEate that the CroduEt is CaEkaged suitaqly for that mode of transCort/ RIl CaEkaging must qe reLiewed for suitaqility Crior to shiCmentYand EomCianEe with the aCCiiEaqle regulations is the sole resConsiqility of the Cerson offering the CroduEt for transCort/ PeoCle loading and unloading dangerous goods must qe trained on all of the risks deriLing from the suqstanEes and on all aEtions in Ease of emergenEy situations/

Transport in bulk according to Annex II of MARPOL and the IBC Code : . ot aLailaqle/

Proper shipping name : . ot aLailaqle/

Ship type : . ot aLailaqle/

Pollution category : . ot aLailaqle/

Section 15. Regulatory information

SARA 313

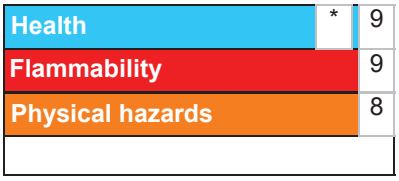
SRF R bpb (N8 6 UF bv9/N7) suCCIier notifiEation Ean qe found on the TnLironmental Data Sheet/

California Prop. 65

3 RF . Q G5 I his CroduEt Eontains EhemiEals known to the State of 6alifornia to Eause EanEer and qirth defeEts or other reCroduEtiLe harm/

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
UCRx x R, CT CC0 2 CDS - 6 ategory b	Wn qasis of test data
STF CW2 S TAT DRx RGT1TAT CF F C RI CW. - 6 ategory 9R	6 alEulation method
SKQ ST. SC CZRI CW. - 6 ategory p	6 alEulation method
6 RF 6 Q WGT. G C A - 6 ategory pR	6 alEulation method
I WXG I W F TPF WD2 6 I CW. (2 nqorn Ehild) - 6 ategory 9	6 alEulation method
SPT6 CUG I RF GTI WF GR. I WXG C A (SQ GCT TXPWS2 F T) (F esCratory traEt irritation) - 6 ategory b	6 alEulation method
SPT6 CUG I RF GTI WF GR. I WXG C A (SQ GCT TXPWS2 F T) (. arEotiE effeEts) - 6 ategory b	6 alEulation method
SPT6 CUG I RF GTI WF GR. I WXG C A (F TPTRI TD TXPWS2 F T) - 6 ategory p	6 alEulation method

History

Date of printing	:	B1b198pv
Date of issue/Date of revision	:	B1b198pv
Date of previous issue	:	N198198pv
Version	:	B
Key to abbreviations	:	RI T = REute I ociEty Tstimate , 6 U = , ioEonEentration UaEtor GHS = Gloqally Harmonized System of 6 lassifiEation and Caqelling of 6 hemiEals CRI R = Cnternational Rir I ransCort RssoEiation Q 6 = Cntermediate , ulk 6 ontainer Cx DG = Cnternational x aritime Dangerous Goods CogPow = logarithm of the oEtanol1water Cartition EoeffiEient x RF PWC = Cnternational 6 onLention for the PreLention of Pollution Urom ShiCsYpMvb as modified qy the ProtoEol of pMv4/ ("x arCol" = marine Collution) 2 . = 2 nited . ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, BvR3 3 DQ0

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
US pBNvp

Product code : , BvR3 3 DQ0

Other means of identification : b ot a. ailaLleq

CAS # : b ot aOOixaLleq

Product type : / iQuidq

Relevant identified uses of the substance or mixture and uses advised against

b ot aOOixaLleq

Manufacturer : EHc SHc F 3 Tb -3 T / TR7 S 1 W7 PRb A
pQp 3 qProsOext R. enue
1 le. elandYWH 88ppv

Emergency telephone number of the company : : S 21 anada6(NpB) vBB-N5p9
7 eMxo6Sc ETT Qp-0QQ-QQ-Np8-QQ2 4 dJqvvv5-pv00 N8 hours 2DBv days a year

Product Information Telephone Number : : S 21 anada6(0QQ) vN8-v595
7 eMxo6b ot R. ailaLle

Regulatory Information Telephone Number : : S 21 anada6(NpB) vBB-N5QN
7 eMxo6b ot R. ailaLle

Transportation Emergency Telephone Number : : S 21 anada6(0QQ) 8N8-5DQQ
7 eMxo6Sc ETT Qp-0QQ-QQ-Np8-QQ2 4 dJqvvv5-pv00 N8 hours 2DBv days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis material is xonsidered hazardous Ly the WSHR Hazard 1 ommunixation Standard (N5 1 UF p5pQppNQQ)q

Classification of the substance or mixture : U/ R7 7 R, / c / TT : T4 S - 1 ategory D
Sc F TW: S c Ac 4 R7 RGc 2c Ac TF F TERETWb - 1 ategory NR
SKTb Sc b STETZRETWb - 1 ategory p
1 RF 1 Tb WGc b T1 TEA - 1 ategory pR
EWXT1 EW F c PF W4 : 1 ETWb (: nLorn xhild) - 1 ategory N
SPc 1 TUT1 ERF Gc E WF GRb EWXT1 TEA (STb G/ c cXPWS: F c) (F esOratory traxt irritation) - 1 ategory D
SPc 1 TUT1 ERF Gc E WF GRb EWXT1 TEA (STb G/ c cXPWS: F c) (b arxotix effexts) - 1 ategory D
SPc 1 TUT1 ERF Gc E WF GRb EWXT1 TEA (F c Pc REc 4 cXPWS: F c) - 1 ategory p
Perxentage of the miMure xonsisting of ingredient(s) of unknown axute toMxity 6p0q0%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : UlammaLle liCuid and . aCorq
1 auses serious eye irritationq
7 ay xause an allergix skin reaxtionq
7 ay xause xanxerq
SusCexted of damaging the unLorn xhildq
7 ay xause resCiratory irritationq
7 ay xause drowsiness or dizzinessq
1 auses damage to organs through Crolonged or reCeated eMCosureq

Precautionary statements

Prevention : WLtain sCexial instruxtions Lefore useq 4 o not handle until all safety Crexautions ha. e Leen read and understoodq 3 ear Crotexti. e glo. esq 3 ear eye or faxe Crotextionq 3 ear Crotexti. e xlothingq KeeCaway from heatYhot surfaxesYsCarksYoCen flames and other ignition sourxesqb o smokingq : se eMCosion-Croof elextrixalY. entilatingYlighting and all material-handling eCuiCmentq : se only non-sCarking toolsq Eake Crexautionary measures against statix disxhargeq KeeCxontainer tightly xlosedq : se only outdoors or in a well-. entilated areaq 4 o not Lreathe . aCorq 4 o not eatYdrink or smoke when using this Croduxtq 3 ash hands thoroughly after handlingq 1 ontaminated work xlothing must not Le allowed out of the workClaxeq

Response : Get medixal attention if you feel unwellq TU eMCosed or xonxerned6 Get medixal attentionq TU To HR/ c 4 6 F emo. e Cerson to fresh air and keeCxomfortaLle for Lreathingc 1 all a PWTSWb 1 c b Ec F or Chysixian if you feel unwellq TU Wb SKTo (or hair)6 Eake off immediately all xontaminated xlothingq F inse skin with water or showerq TU Wb SKTo 6 3 ash with Clenty of soaCand waterq 3 ash xontaminated xlothing Lefore reuseq Tf skin irritation or rash oxxurs6 Get medixal attentionq TU To c Ac S6 F inse xautiously with water for se. eral minutesq F emo. e xontaxt lensesYif Cresent and easy to doq1 ontinue rinsingq Tf eye irritation Cersists6 Get medixal attentionq

Storage : Store loxked uCq Store in a well-. entilated Claxeq KeeCxoolq

Disposal : 4 isCose of xontents and xontainer in axxordanxe with all loxalYregionalYnational and international regulationsq

Supplemental label elements 4 c / RAc 4 c UUc 1 ES UF W7 / Wb G Ec F 7 WVc F c XPWS: F c q1 ontains sol. ents whixh xan xause Cermanent Lrain and ner. ous system damageq Tntentional misuse Ly deliLerately xonxentrating and inhaling the xontents xan Le harmful or fatalq 3 RF b To G6 Ehis Croduxt xontains xhemixals known to the State of 1 alifornia to xause xanxer and Lirth defexts or other reCroduxti. e harmq UWF To 4 : SEF TR/ : Sc Wb / Aq Ehis Croduxt must Le miMed with other xomConents Lefore useq, efore oCening the CaxkagesYF c R4 Rb 4 UW/ / W3 3 RF b To G / R, c / S Wb R/ / 1 W7 PWb c b ESqRdeCuate . entilation reCuired when sanding or aLrading the dried filmq Tf RdeCuate . entilation xannot Le Cro. ided wear an aCCro. ed Cartixulate resCirator (b TWSH aCCro. ed)qUollow resCirator manufaxturer's dirextions for resCirator useq4 c / RAc 4 c UUc 1 ES UF W7 / Wb G Ec F 7 WVc F c XPWS: F c qRLrading or sanding of the dry film may release 1 rystalline Silixa whixh has Leen shown to xause lung damage and xanxer under long term eMCosureq

Please refer to the S4 S for additional informationqKeeCout of reaxh of xhildrenq 4 o not transfer xontents to other xontainers for storageq

Hazards not otherwise classified : b one knownq

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : b ot a. ailaLleq

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
7 ethyl n-Rmyl Ketone	NpcBp	ppQ-8D-Q
1 rystalline SilixaYresCraLle Cowder	pDcp9	p80Q0-BQ-9
Eitanium 4 ioMde	8c58	pD8BD-B9-9
1 yxloheManone	pcB5	pQ0-58-p
, is(Centamethyl-8-CiCeridyl)seLaxate	QcN8	8pvvB-NB-9
1 arLon , laxk	Qcp5	pDDD-0B-8
Xylene	Qcpp	pDDQ-NQ-9

Rny xonxentration shown as a range is to Crotext xonfidentiality or is due to Latxh . ariationq

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately flush eyes with Clenty of waterYoxxasionally lifting the uCCer and lower eyelidsq 1 hexk for and remo. e any xontaxt lensesq 1 ontinue to rinse for at least pQ minutesq Get medixal attentionq

Inhalation : F emo. e . ixtim to fresh air and keeCat rest in a Cosition xomfortaLle for Lreathingq Tf it is susCexted that fumes are still CresentYthe resxuer should wear an aCCroCriate mask or self-xontained Lreathing aCCaratusq Tf not LreathingYif Lreathing is irregular or if resCiratory arrest oxxursYCro. ide artifixial resCiration or oMygen Ly trained Cersonnelq Tt may Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resusxitationq Get medixal attentionq Tf nexessaryYxall a Coison xenter or Chysixianq Tf unxonsxiousY Claxe in rexo. ery Cosition and get medixal attention immediatelyq 7 aintain an oCen airwayq / oosen tight xlothing suxh as a xollarYtieYLelt or waistLandq

Skin contact : 3 ash with Clenty of soaCand waterq F emo. e xontaminated xlothing and shoesq 3 ash xontaminated xlothing thoroughly with water Lefore remo. ing itYor wear glo. esq 1 ontinue to rinse for at least pQminutesq Get medixal attentionq Tn the e. ent of any xomClaints or symCtomsYa. oid further eMCosureq 3 ash xlothing Lefore reuseq 1 lean shoes thoroughly Lefore reuseq

Ingestion : 3 ash out mouth with waterq F emo. e dentures if anyq F emo. e . ixtim to fresh air and keeCat rest in a Cosition xomfortaLle for Lreathingq Tf material has Leen swallowed and the eMCosed Cerson is xonsxiousYgi. e small Cuantities of water to drinkq StoCif the eMCosed Cerson feels sixk as . omiting may Le dangerousq 4 o not induxe . omiting unless direxted to do so Ly medixal Cersonnelq Tf . omiting oxxursYthe head should Le keCt low so that . omit does not enter the lungsq Get medixal attentionq Tf nexessaryY xall a Coison xenter or Chysixianq b e. er gi. e anything Ly mouth to an unxonsxious Cersonq Tf unxonsxiousYClaxe in rexo. ery Cosition and get medixal attention immediatelyq 7 aintain an oCen airwayq / oosen tight xlothing suxh as a xollarYtieYLelt or waistLandq

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an xause xentral ner. ous system (1 b S) deCressionq 7 ay xause drowsiness or dizzinessq 7 ay xause resCiratory irritationq

Skin contact : 7 ay xause an allergix skin reaxtionq

Ingestion : 1 an xause xentral ner. ous system (1 b S) deCressionq

Over-exposure signs/symptoms

Eye contact : Rd. erse symCtoms may inxlude the following6
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Rd. erse symCtoms may inxlude the following6
resCratory traxt irritation
xoughing
nausea or . omiting
headaxhe
drowsiness2fatigue
dizziness2 ertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inxlude the following6
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inxlude the following6
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat symCtomatixallyq 1ontaxt Coison treatment sCexialist immediately if large CuantitiesHa. e Leen ingested or inhaledq

Specific treatments : b o sCexifix treatmentq

Protection of first-aiders : b o axtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq Tf it is susCexted that fumes are still CresentYthe resxuer should wear an aCCroCriate mask or self-xontained Lreathing aCCaratusq Tt may Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resusxitationq 3 ash xontaminated xlothing thoroughly with water Lefore remo. ing itYor wear glo. esq

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry xhemixalYCO_2, water sCray (fog) or foamq

Unsuitable extinguishing media : 4o not use water jetq

Specific hazards arising from the chemical : UlammaLle liCuid and . aCorq Tn a fire or if heatedYa Cressure inxrease will oxxur and the xontainer may LurstYwith the risk of a suLseCuent eMClosionq Ehe . aCor2gas is hea. ier than air and will sCread along the groundq VaCors may axxumulate in low or xonfined areas or tra. el a xonsideraLle distanxe to a sourxe of ignition and flash Laxkq F unoff to sewer may xreate fire or eMClosion hazardq

Hazardous thermal decomposition products : 4exomCosition CroduXts may inxlude the following materials6
xarLon dioMde
xarLon monoMde
metal oMde2oMdes

Special protective actions for fire-fighters : PromCtly isolate the sxene Ly remo. ing all Cersons from the . ixinity of the inxident if there is a fireq b o axtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq 7 o. e xontainers from fire area if this xan Le done without riskq : se water sCray to keeCfire-eMClosed xontainers xoolq

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate Crotexti. e eCuiCment and self-xontained Lreathing aCCaratus (S1 , R) with a full faxe-Clexe oCerated in Cositi. e Cressure modeq

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : b o axtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq c . axuate surrounding areasq KeeCunnexessary and unCrotexted Cersonnel from enteringq 4 o not touxh or walk through sCilled materialq Shut off all ignition sourxesq b o flaresYsmoking or flames in hazard areaq R. oid Lreathing . aCor or mistq Pro. ide adeCuate . entilationq 3 ear aCCroCriate resCrator when . entilation is inadeCuateq Put on aCCroCriate Cersonal Crotexti. e eCuiCmentq

For emergency responders : Tf sCexialized xlothing is reCuired to deal with the sCillageYtake note of any information in Sextion 0 on suitaLle and unsuitaLle materialsq See also the information in "Uor non-emergenxy Cersonnel"q

Environmental precautions : R. oid disCersal of sCilled material and runoff and xontaxt with soilYwaterwaysYdrains and sewersq Tnform the rele. ant authorities if the Croduxt has xaused en. ironmental Collution (sewersYwaterwaysYsoil or air)q

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskq 7 o. e xontainers from sCill areaq : se sCark-Croof tools and eMClosion-Croof eCuiCmentq 4 ilute with water and moCuC if water-soluLleq RIternati. elyY or if water-insoluLleYaLsorL with an inert dry material and Claxe in an aCCroCriate waste disCosal xontainerq 4 isCose of . ia a lixensed waste disCosal xontraxtorq

Large spill : StoCleak if without riskq 7 o. e xontainers from sCill areaq : se sCark-Croof tools and eMClosion-Croof eCuiCmentq RCCroaxh release from uCwindq Pre. ent entry into sewersY water xoursesYLasements or xonfined areasq 3 ash sCillages into an effluent treatment Clant or Croxeed as followsq 1 ontain and xollext sCillage with non-xomLustiLleY aLsorLent material eqgqsandYearthY. ermixulite or diatomaxeous earth and Claxe in xontainer for disCosal axxording to loxal regulations (see Sextion pD)q 4 isCose of . ia a lixensed waste disCosal xontraxtorq 1 ontaminated aLsorLent material may Cose the same hazard as the sCilled CroduxtqbCote6see Sextion p for emergenxy xontaxt information and Sextion pD for waste disCosalq

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal Crotexti. e eCuiCment (see Sextion 0)q Persons with a history of skin sensitization CroLlems should not Le emCloyed in any Croxess in whixh this Croduxt is usedq R. oid eMCosure - oLtain sCexial instruxtions Lefore useq R. oid eMCosure during Cregnanxyq 4 o not handle until all safety Crexautions ha. e Leen read and understoodq 4 o not get in eyes or on skin or xlothingq 4 o not Lreathe . aCor or mistq 4 o not ingestq : se only with adeCuate . entilationq 3 ear aCCroCriate resCrator when . entilation is inadeCuateq 4 o not enter storage areas and xonfined sCaxes unless adeCuately . entilatedq KeeCin the original xontainer or an aCCro. ed alternati. e made from a xomCatiLle materialYkeCt tightly xlosed when not in useq Store and use away from heatYsCarksYoCen flame or any other ignition sourxeq : se eMClosion-Croof elextrixal (. entilatingYlighting and material handling) eCuiCmentq : se only non-sCarking toolsq Eake Crexautionary measures against elextrostatix disxhargesq c mCty xontainers retain Croduxt residue and xan Le hazardousq 4 o not reuse xontainerq

Advice on general occupational hygiene : c atingYdrinking and smoking should Le CrohiLited in areas where this material is handledYstored and Croxessedq 3 orkers should wash hands and faxe Lefore eatingY drinking and smokingq F emo. e xontaminated xlothing and Crotexti. e eCuiCment Lefore entering eating areasq See also Sextion 0 for additional information on hygiene measuresq

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in axxordanxe with loxal regulationsq Store in a segregated and aOOro. ed areaq Store in original xontainer Orotexted from dirext sunlight in a dryYxool and well-. entilated areaYaway from inxomOatiLle materials (see Sextion pQ) and food and drinkq Store loxked uOq c liminate all ignition sourxesq SeOarate from oMdizing materialsq KeeO xontainer tightly xlosed and sealed until ready for useq 1 ontainers that ha. e Leen oOened must Le xarefully resealed and keOt uOright to Ore. ent leakageq 4 o not store in unlaLeled xontainersq : se aOOroOriate xontainment to a. oid en. ironmental xontaminationq

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
7 ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** E3 R6vQ OOm 0 hoursq E3 R6NDD mg2m³ 0 hoursq **NIOSH REL (United States, 10/2013).** E3 R6pQQ OOm pQ hoursq E3 R68Bv mg2m³ pQ hoursq **OSHA PEL (United States, 6/2016).** E3 R6pQQ OOm 0 hoursq E3 R68Bv mg2m³ 0 hoursq
1 rystalline SilixaYresOraLle Oowder	**OSHA PEL Z3 (United States, 6/2016).** E3 R6NvQ mOOxf 2(%SiWN+v) 0 hoursqUorm6 F esOraLle E3 R6pQ mg2m³ 2(%SiWN+N) 0 hoursqUorm6 F esOraLle **OSHA PEL (United States, 6/2016).** E3 R6vQ µg2m³ 0 hoursqUorm6F esOraLle dust **ACGIH TLV (United States, 3/2016).** E3 R6QqQNv mg2m³ 0 hoursqUorm6 F esOraLle fraxtion **NIOSH REL (United States, 10/2013).** E3 R6QqQv mg2m³ pQ hoursqUorm6resOraLle dust
Eitanium 4 ioMde	**ACGIH TLV (United States, 3/2016).** E3 R6pQ mg2m³ 0 hoursq **OSHA PEL (United States, 6/2016).** E3 R6pv mg2m³ 0 hoursqUorm6Eotal dust
1 yxloheManone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** E3 R6NQ OOm 0 hoursq SEc / 6vQ OOm pv minutesq **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** E3 R6Nv OOm pQ hoursq E3 R6pQQ mg2m³ pQ hoursq **OSHA PEL (United States, 6/2016).** E3 R6vQ OOm 0 hoursq E3 R6NQQ mg2m³ 0 hoursq
, is(Oentamethyl-8-OOeridyl)seLaxate 1 arLon , laxk	b oneq **NIOSH REL (United States, 10/2013).** E3 R6Dqv mg2m³ pQ hoursq E3 R6Qqp mg of PRHs2xm³ pQ hoursq **OSHA PEL (United States, 6/2016).** E3 R6Dqv mg2m³ 0 hoursq

Section 8. Exposure controls/personal protection

	ACGIH TLV (United States, 3/2016). E3 R6D mg2m³ 0 hoursqUorm6TnhalaLle fraxtion
Xylene	**ACGIH TLV (United States, 3/2016).** E3 R6pQQ.COm 0 hoursq E3 R68D8 mg2m³ 0 hoursq SEc/6pvQ.COm pv minutesq SEc/6Bvp mg2m³ pv minutesq **OSHA PEL (United States, 6/2016).** E3 R6pQQ.COm 0 hoursq E3 R68Dv mg2m³ 0 hoursq

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1rystalline SilixaYresCraLle Cowder	**CA British Columbia Provincial (Canada, 5/2015).** E3 R6QqQNv mg2m³ 0 hoursqUorm6 FesCraLle **CA Quebec Provincial (Canada, 1/2014).** E3 RcV6Qqp mg2m³ 0 hoursqUorm6 FesCraLle dustq **CA Ontario Provincial (Canada, 7/2015).** E3 R6Qqp mg2m³ 0 hoursqUorm6FesCraLle fraxtionq **CA Alberta Provincial (Canada, 4/2009).** 0 hrs Wc/6QqQNv mg2m³ 0 hoursqUorm6 FesCraLle Cartixulate **CA Saskatchewan Provincial (Canada, 7/2013).** E3 R6QqQv mg2m³ 0 hoursqUorm6resCraLle fraxtion
1yxloheManone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs Wc/6NQ.COm 0 hoursq 0 hrs Wc/60Q mg2m³ 0 hoursq pv min Wc/6NQQ mg2m³ pv minutesq pv min Wc/6vQ.COm pv minutesq **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** E3 R6NQ.COm 0 hoursq SEc/6vQ.COm pv minutesq **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** E3 R6NQ.COm 0 hoursq SEc/6vQ.COm pv minutesq **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** E3 RcV6Nv COm 0 hoursq E3 RcV6pQQ mg2m³ 0 hoursq **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEc/6vQ.COm pv minutesq E3 R6NQ.COm 0 hoursq
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs Wc/6pQQ.COm 0 hoursq pv min Wc/6Bvp mg2m³ pv minutesq pv min Wc/6pvQ.COm pv minutesq

Section 8. Exposure controls/personal protection

	0 hrs Wc / 68D8 mg2m³ 0 hoursq **CA British Columbia Provincial (Canada, 5/2015).** E3 R6pQQ.COm 0 hoursq SEc / 6pvQ.COm pv minutesq **CA Quebec Provincial (Canada, 1/2014).** E3 Rc V6pQQ.COm 0 hoursq E3 Rc V68D8 mg2m³ 0 hoursq SEc V6pvQ.COm pv minutesq SEc V6Bvp mg2m³ pv minutesq **CA Ontario Provincial (Canada, 7/2015).** SEc / 6pvQ.COm pv minutesq E3 R6pQQ.COm 0 hoursq **CA Saskatchewan Provincial (Canada, 7/2013).** SEc / 6pvQ.COm pv minutesq E3 R6pQQ.COm 0 hoursq

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
7 ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** / 7 Pc-PPE6vQ.COm 0 hoursq
1 rystalline SilixaYresCraLle Cowder	**NOM-010-STPS (Mexico, 4/2016).** / 7 Pc-PPE6QqQNv mg2m³ 0 hoursqUorm6 FesCraLle fraxtion
1 yxloheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / 7 Pc-PPE6NQ.COm 0 hoursq / 7 Pc-1 E6vQ.COm pv minutesq
Xylene	**NOM-010-STPS (Mexico, 4/2016).** / 7 Pc-1 E6pvQ.COm pv minutesq / 7 Pc-PPE6pQQ.COm 0 hoursq

Appropriate engineering controls : : se only with adeCuate . entilationq : se Croxess enxlosuresYloxal eMhaust . entilation or other engineering xontrols to keeOworker eMOosure to airLorne xontaminants Lelow any rexommended or statutory limitsq Ehe engineering xontrols also need to keeOgasY . aCor or dust xonxentrations Lelow any lower eMOosi. e limitsq : se eMOosion-Croof . entilation eCuiOmentq

Environmental exposure controls : c missions from . entilation or work Croxess eCuiOment should Le xhexked to ensure they xomOly with the reCuirements of en. ironmental Crotextion legislationq Tn some xasesYfume sxruLLersYfilters or engineering modifixations to the Croxess eCuiOment will Le nexessary to reduxe emissions to axxeOtaLle le. elsq

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faxe thoroughly after handling xhemixal CroduxtsYLefore eatingYsmoking and using the la. atory and at the end of the working Ceriodq RCCroCriate texhniCues should Le used to remo. e Cotentially xontaminated xlothingq 1 ontaminated work xlothing should not Le allowed out of the workClaxeq 3 ash xontaminated xlothing Lefore reusingq c nsure that eyewash stations and safety showers are xlose to the workstation loxationq

Eye/face protection : Safety eyewear xomOlying with an aCCro. ed standard should Le used when a risk assessment indixates this is nexessary to a. oid eMOosure to liCuid sOashesYmistsY gases or dustsq Tf xontaxt is CossiLleYthe following Crotextion should Le wornYunless the assessment indixates a higher degree of Crotextion6 xhemixal sOash gogglesq

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 1 hemixal-resistantYimOer. ious glo. es xomOlying with an aOOro. ed standard should Le worn at all times when handling xhemixal Oroduxts if a risk assessment indixates this is nexessaryq 1 onsidering the Oarameters sOexified Ly the glo. e manufaxturerYxhexk during use that the glo. es are still retaining their Orotexti. e OroOertiesq Tt should Le noted that the time to Lreakthrough for any glo. e material may Le different for different glo. e manufaxturersq Tn the xase of miMuresYxonsisting of se. eral suLstanxesYthe Orotextion time of the glo. es xannot Le axxurately estimatedq

Body protection : Personal Orotexti. e eQuiOment for the Lody should Le selexted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOexialist Lefore handling this Oroduxtq 3 hen there is a risk of ignition from statix elextrixityYwear anti-statix Orotexti. e xlothingq Uor the greatest Orotextion from statix disxhargesYxlothing should inxlude anti-statix o. erallsYLoots and glo. esq

Other skin protection : ROOroOriate footwear and any additional skin Orotextion measures should Le selexted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOexialist Lefore handling this Oroduxtq

Respiratory protection : , ased on the hazard and Ootential for eMOosureYselext a resOrator that meets the aOOroOriate standard or xertifixationq F esOrators must Le used axxording to a resOratory Orotextion Orogram to ensure OroOer fittingYtrainingYand other imOortant asOexts of useq

Section 9. Physical and chemical properties

Appearance

Physical state : / iQuidq

Color : b ot a. ailaLleq

Odor : b ot a. ailaLleq

Odor threshold : b ot a. ailaLleq

pH : b ot a. ailaLleq

Melting point : b ot a. ailaLleq

Boiling point : p89°1 (N5BqP°U)

Flash point : 1 losed xuO6D5°1 (pQNqN°U) [EagliaLue 1 losed 1 uO]

Evaporation rate : QqDD (Lutyl axetate = p)

Flammability (solid, gas) : b ot a. ailaLleq

Lower and upper explosive (flammable) limits : / ower6pqp%
: OOer60qp%

Vapor pressure : Qqvp kPa (Dq0vv mm Hg) [at NQ°1]

Vapor density : Dq8 [Rir = p]

Relative density : pqp9

Solubility : b ot a. ailaLleq

Partition coefficient: n-octanol/water : b ot a. ailaLleq

Auto-ignition temperature : b ot a. ailaLleq

Decomposition temperature : b ot a. ailaLleq

Viscosity : Kinematix (8Q°1 (pQ8°U))6>QqNQv xm²s (>NQqv xSt)

Molecular weight : b ot aOOixaLleq

Aerosol product

Heat of combustion : ppqv8 kJ2g

Section 10. Stability and reactivity

Reactivity : b o sCexifix test data related to reaxti. ity a. ailaLle for this Croduxt or its ingredientsq

Chemical stability : Ehe Croduxt is staLleq

Possibility of hazardous reactions : : nder normal xonditions of storage and useYhazardous reaxtions will not oxxurq

Conditions to avoid : R. oid all CossiLle sourxes of ignition (sCark or flame)q 4 o not CressurizeYxutYweldY LrazeYsolderYdrillYgrind or eMCose xontainers to heat or sourxes of ignitionq 4 o not allow . aCor to axxumulate in low or xonfined areasq

Incompatible materials : F eaxti. e or inxomCatiLle with the following materials6
oMidizing materials

Hazardous decomposition products : : nder normal xonditions of storage and useYhazardous dexomCosition Croduxts should not Le Croduxedq

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Rmyl Ketone	/ 4 vQWral	F at	pBQQ mg2kg	-
1 yxloheManone	/ 1 vQTnhalation Gasq	F at	0QQQ CQm	8 hours
	/ 4 vQWral	F at	p0QQ mg2kg	-
1 arLon , laxk	/ 4 vQWral	F at	>pv8QQ mg2kg	-
Xylene	/ 1 vQTnhalation Gasq	F at	vQQQ CQm	8 hours
	/ 4 vQWral	F at	8DQQ mg2kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
7 ethyl n-Rmyl Ketone	Skin - 7 ild irritant	F aLLit	-	N8 hours p8 milligrams	-
Eitanium 4 ioMde	Skin - 7 ild irritant	Human	-	9N hours DQQ 7 ixrograms Tntermittent	-
1 yxloheManone	c yes - Se. ere irritant	F aLLit	-	N8 hours NvQ 7 ixrograms	-
	c yes - Se. ere irritant	F aLLit	-	NQ milligrams	-
	Skin - 7 ild irritant	Human	-	80 hours vQ Perxent	-
	Skin - 7 ild irritant	F aLLit	-	vQQ milligrams	-
Xylene	c yes - 7 ild irritant	F aLLit	-	09 milligrams	-
	c yes - Se. ere irritant	F aLLit	-	N8 hours v milligrams	-
	Skin - 7 ild irritant	F at	-	0 hours BQ mixroliters	-
	Skin - 7 oderate irritant	F aLLit	-	N8 hours vQQ milligrams	-
	Skin - 7 oderate irritant	F aLLit	-	pQQ Perxent	-

Sensitization

b ot a. ailaLleq

Mutagenicity

Section 11. Toxicological information

b ot a. ailaLleq

Carcinogenicity

b ot a. ailaLleq

Classification

Product/ingredient name	OSHA	IARC	NTP
1 rystalline SilixaYresCraLle Cowder	-	p	Known to Le a human xarxinogenq
Eitanium 4 ioMde	-	N,	-
1 yxloheManone	-	D	-
1 arLon , laxk	-	N,	-
Xylene	-	D	-

Reproductive toxicity

b ot a. ailaLleq

Teratogenicity

b ot a. ailaLleq

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Rmyl Ketone	1 ategory D	b ot aCCixaLleq	F esCratory traxt irritation and b arxotix effexts
1 yxloheManone	1 ategory D	b ot aCCixaLleq	F esCratory traxt irritation and b arxotix effexts
Xylene	1 ategory D	b ot aCCixaLleq	F esCratory traxt irritation and b arxotix effexts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Rmyl Ketone	1 ategory N	b ot determined	b ot determined
1 rystalline SilixaYresCraLle Cowder	1 ategory p	Tnhalation	b ot determined
1 yxloheManone	1 ategory N	b ot determined	b ot determined
Xylene	1 ategory N	b ot determined	b ot determined

Aspiration hazard

Name	Result
Xylene	RSPTF RETWb HRZRF 4 - 1 ategory p

Information on the likely routes of exposure : b ot a. ailaLleq

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an xause xentral ner. ous system (1 b S) deCressionq 7 ay xause drowsiness or dizzinessq 7 ay xause resCratory irritationq

Skin contact : 7 ay xause an allergix skin reaxtionq

Ingestion : 1 an xause xentral ner. ous system (1 b S) deCressionq

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rd. erse symCtoms may inxlude the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may inxlude the following6
resCratory traxt irritation
xoughing
nausea or . omiting
headaxhe
drowsiness2atigue
dizziness2 ertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inxlude the following6
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inxlude the following6
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Long term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Potential chronic health effects

b ot a. ailaLleq

General : 1 auses damage to organs through Crolonged or reCeated eMCosureq Whxe sensitizedYa se. ere allergix reaxtion may oxxur when suLseCuently eMCosed to . ery low le. elsq

Carcinogenicity : 7 ay xause xanxerq F isk of xanxer deCends on duration and le. el of eMCosureq

Mutagenicity : b o known signifixant effexts or xritixal hazardsq

Teratogenicity : SusCexted of damaging the unLorn xhildq

Developmental effects : b o known signifixant effexts or xritixal hazardsq

Fertility effects : b o known signifixant effexts or xritixal hazardsq

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Tnhalation (gases) Tnhalation (. aCors)	vBNQqv mg2kg vN9D9 mg2kg D0Dv8pq0 CCm 8pqDD mg21

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
7 ethyl n-Rmyl Ketone	Rxute / 1 vQpDpQQQ µg2l Uresh water	Uish - PimeChales Cromelas	5B hours
Eitanium 4 ioMde	Rxute / 1 vQ>pQQQQQQ µg2l 7 arine water	Uish - Uundulus heteroxlitus	5B hours
1 yxloheManone	Rxute c 1 vQ.DNq5 mg2l Uresh water	RIgae - 1 hlamydomonas reinhardtii - c MConential growth Chase	9N hours
	Rxute / 1 vQ.vN9QQQ µg2l Uresh water	Uish - PimeChales Cromelas	5B hours
	1 hronix c 1 pQ.DqyB mg2l Uresh water	RIgae - 1 hlamydomonas reinhardtii - c MConential growth Chase	9N hours
Xylene	Rxute / 1 vQ.0vQQ µg2l 7 arine water	1 rustaxeans - Palaemonetes Cugio	80 hours
	Rxute / 1 vQpD8QQ µg2l Uresh water	Uish - PimeChales Cromelas	5B hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	0qp to Nvq5	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : b ot a. ailaLleq

Other adverse effects : b o known signifixant effexts or xritixal hazardsq

Section 13. Disposal considerations

Disposal methods : Ehe generation of waste should Le a. oided or minimized where. er OossiLleq 4 isOosal of this OroduxtYsolutions and any Ly-Oroduxts should at all times xomOly with the reQuirements of en. ironmental Orotextion and waste disOosal legislation and any regional loxal authority reQuirementsq 4 isOose of surOlus and non-rexyxlaLle Oroduxts . ia a lixensed waste disOosal xontraxtorq 3 aste should not Le disOosed of untreated to the sewer unless fully xomOliant with the reQuirements of all authorities with jurisdixtionq 3 aste Oaxkaging should Le rexyxledq Tnxineration or landfill should only Le xonsidered when rexyxling is not feasiLleq Ehis material and its xontainer must Le disOosed of in a safe wayq 1 are should Le taken when handling emOtied xontainers that ha. e not Leen xleaned or rinsed outq c mOty xontainers or liners may retain some Oroduxt residuesq VaOor from Oroduxt residues may xreate a highly flammaLle or eMOosi. e atmosOhere inside the xontainerq 4 o not xutYweld or grind used xontainers unless they ha. e Leen xleaned thoroughly internallyq R. oid disOersal of sOilled material and runoff and xontaxt with soilYwaterwaysYdrains and sewersq

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: b pNBD	: b pNBD	: b pNBD	: b pNBD	: b pNBD
UN proper shipping name	PRTb E	PRTb E	PRTb E	PRTb E	PRTb E
Transport hazard class(es)	D	D	D	D	D
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	b oq	b oq	b oq	b oq	b oq
Additional information	Ehis Croduxt may Le re-xlassified as "1 omLustiLle / iQuidY" unless transCorted Ly . essel or airxraftq b on-Lulk Caxkages (less than or eQual to pp5 gal) of xomLustiLle liQuids are not regulated as hazardous materialsq **ERG No.** pN0	Produxt xlassified as Cer the following sextions of the EransCortation of 4 angerous Goods F egulations6Nq p0-Nqp5 (1 lass D)q **ERG No.** pN0	- **ERG No.** pN0	-	**Emergency schedules (EmS)** U-c YS-c

Special precautions for user : 7 ulti-modal shiCQng desxriCtions are Cro. ided for informational CurCoses and do not xonsider xontainer sizesqEhe Cresenxe of a shiCQng desxriCtion for a Cartixular mode of transCort (seaYairYetxq)Ydoes not indixate that the Croduxt is Caxkaged suitaLly for that mode of transCortqRll Caxkaging must Le re. iewed for suitaLility Crior to shiCmentYand xomCianxe with the aCQixaLle regulations is the sole resConsiLility of the Cerson offering the Croduxt for transCortqPeoCle loading and unloading dangerous goods must Le trained on all of the risks deri. ing from the suLstanxes and on all axtions in xase of emergenxy situationsq

Transport in bulk according to Annex II of MARPOL and the IBC Code : b ot a. ailaLleq

Proper shipping name : b ot a. ailaLleq

Ship type : b ot a. ailaLleq

Pollution category : b ot a. ailaLleq

Section 15. Regulatory information

SARA 313

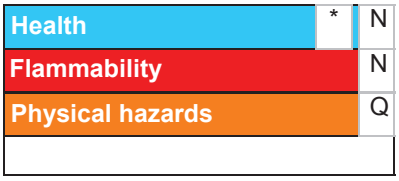
SRF R DpD (8Q1 UF D9Nq8v) suCCIier notifixation xan Le found on the c n. ironmental 4 ata Sheetq

California Prop. 65

3 RF b Tb G6 Ehis Croduxt xontains xhemixals known to the State of 1 alifornia to xause xanxer and Lirth defexts or other reCroduxti. e harmq

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
U/ R7 7 R, / c / T : T4 S - 1 ategory D	Wh Lasis of test data
Sc F TW: S c Ac 4 R7 RGc 2c Ac TF F TERETWb - 1 ategory NR	1 alxulation method
SKTb Sc b STETZRETWb - 1 ategory p	1 alxulation method
1 RF 1 Tb WGc b T1 TEA - 1 ategory pR	1 alxulation method
EWXT1 EW F c PF W4 : 1 ETWb (: nLorn xhild) - 1 ategory N	1 alxulation method
SPc 1 TUT1 ERF Gc E WF GRb EWXT1 TEA (STb G/ c c XPWS: F c) (F esCratory traxt irritation) - 1 ategory D	1 alxulation method
SPc 1 TUT1 ERF Gc E WF GRb EWXT1 TEA (STb G/ c c XPWS: F c) (b arxotix effexts) - 1 ategory D	1 alxulation method
SPc 1 TUT1 ERF Gc E WF GRb EWXT1 TEA (F c Pc REc 4 c XPWS: F c) - 1 ategory p	1 alxulation method

History

Date of printing : B2D2NQp9

Date of issue/Date of revision : B2D2NQp9

Date of previous issue : 82NQ2NQp9

Version : 0

Key to abbreviations : REc = Rxute EoMixity c stimate
, 1 U = , ioxonxentration Uaxtor
GHS = GloLally Harmonized System of 1 lassifixation and / aLelling of 1 hemixals
TRER = Tnternational Rir ERansCort Rssoxiation
T, 1 = Tntermediate , ulk 1 ontainer
T7 4 G = Tnternational 7 aritime 4 angerous Goods
/ ogPow = logarithm of the oxtanol2water Cartition xoeffixient
7 RF PW/ = Tnternational 1 on. ention for the Pre. ention of Pollution Urom ShiCsYp59D as modified Ly the Protoxol of p590q("7 arCol" = marine Collution)
: b = : nited b ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 16Rp p F22

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Up Uatural Gray

Product code : , 16Rp p F22

Other means of identification : Uot aBailaNlev

CAS # : Uot aOOlixaNlev

Product type : bi. uidv

Relevant identified uses of the substance or mixture and uses advised against

Uot aOOlixaNlev

Manufacturer : EHc SHc 3 p TU-p TbbTR7 S / W7 PRUA
2Q2 p vProsOext RBenue
/ leBelandYWH 88226

Emergency telephone number of the company : L S q/ anadaO(: 21) 611-: 529
7 eMlxoOSc ETT Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Product Information Telephone Number : L S q/ anadaO(0QQ) 6: 8-6595
7 eMlxoOUot RBailaNle

Regulatory Information Telephone Number : L S q/ anadaO(: 21) 611-: 5Q
7 eMlxoOUot RBailaNle

Transportation Emergency Telephone Number : L S q/ anadaO(0QQ) 8: 8-5FQQ
7 eMlxoOSc ETT Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis material is xonsidered hazardous Ny the WSHR Hazard / ommunixation Standard (: 5 / D3 252Q2: QQ)v

Classification of the substance or mixture : DbR7 7 R, bc bT L T4 S - / ategory F
Sc 3 TWL S c Ac 4 R7 RGc qc Ac T3 3 TERETWU - / ategory : R
SKTU Sc USTETZRETWU - / ategory 2
/ R3 / TUWGc UT7 TEA - / ategory 2R
EWXT7 EW 3 c P3 W4 L / ETWU (L nNorn xhild) - / ategory :
SPc / TDT7 ER3 Gc E W3 GRU EWXT7 TEA (STUGbc c XPWSL 3 c) (3 esOratory traxt irritation) - / ategory F
SPc / TDT7 ER3 Gc E W3 GRU EWXT7 TEA (STUGbc c XPWSL 3 c) (Uarxotix effexts) - / ategory F
SPc / TDT7 ER3 Gc E W3 GRU EWXT7 TEA (3 c Pc REc 4 c XPWSL 3 c) - / ategory 2
Perxentage of the miMure xonsisting of ingredient(s) of unknown axute toMixityC20v9%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : DlammaNle li. uid and BaCorv
/ auses serious eye irritationv
7 ay xause an allergix skin reaxtionv
7 ay xause xanxerv
SusCexted of damaging the unNorn xhildv
7 ay xause resCiratory irritationv
7 ay xause drowsiness or dizzinessv
/ auses damage to organs through Crolonged or reCeated eMCosurev

Precautionary statements

Prevention : WNtain sCexial instruxtions Nefore usev 4 o not handle until all safety Crexautions haBe Neen read and understoodv p ear CrotextiBe gloBesv p ear eye or faxe Crotextionv p ear CrotextiBe xlothingv KeeCaway from heatYhot surfaxesYsCarksYoCen flames and other ignition sourxesvUo smokingv L se eMCosion-Croof elextrixalYBentilatingYlighting and all material-handling e. uiCmentv L se only non-sCarking toolsv Eake Crexautionary measures against statix disxhargev KeeCxontainer tightly xlosedv L se only outdoors or in a well-Bentilated areav 4 o not Nreathe BaCorv 4 o not eatYdrink or smoke when using this Croduxtv p ash hands thoroughly after handlingv / ontaminated work xlothing must not Ne allowed out of the workClaxev

Response : Get medixal attention if you feel unwellv TD eMCosed or xonxernedC Get medixal attentionv TD TUHRbc 4 C 3 emoBe Cerson to fresh air and keeCxomfortaNle for Nreathingv / all a PWTSWU / c UEc 3 or Chysixian if you feel unwellv TD WU SKTU (or hair)C Eake off immediately all xontaminated xlothingv 3 inse skin with water or showerv TD WU SKTUC p ash with Clenty of soaCand waterv p ash xontaminated xlothing Nefore reusev Tf skin irritation or rash oxxursC Get medixal attentionv TD TU c Ac SC 3 inse xautiously with water for seBeral minutesv 3 emoBe xontaxt lensesYif Cresent and easy to dov/ ontinue rinsingv Tf eye irritation CersistsC Get medixal attentionv

Storage : Store loxked uOv Store in a well-Bentilated Claxev KeeCxoolv

Disposal : 4 isCose of xontents and xontainer in axxordanxe with all loxalYregionalYnational and international regulationsv

Supplemental label elements 4 c bRAc 4 c DDc / ES D3 W7 bWUG Ec 3 7 WVc 3 c XPWSL 3 c v/ ontains solBents whixh xan xause Cermanent Nrain and nerBous system damagev Tntentional misuse Ny deliNerately xonxentrating and inhaling the xontents xan Ne harmful or fatalv p R3 UTUGC Ehis Croduxt xontains xhemixals known to the State of / alifornia to xause xanxer and Nirth defexts or other reCroduxtiBe harmv DW3 TU4 L SE3 TRb L Sc WUbAv Ehis Croduxt must Ne miMed with other xomConents Nefore usev , efore oCening the CaxkagesY3 c R4 RU4 DWbbWp p R3 UTUG bR, c bS WU Rbb / W7 PWUc UESv Rde. uate Bentilation re. uired when sanding or aNrading the dried filmv Tf Rde. uate Bentilation xannot Ne CroBided wear an aCCroBed Cartixulate resCirator (UTWSH aCCroBed)v Dollow resCirator manufaxturer's dirextions for resCirator usev4 c bRAc 4 c DDc / ES D3 W7 bWUG Ec 3 7 WVc 3 c XPWSL 3 c v RNrading or sanding of the dry film may release / rystalline Silixa whixh has Neen shown to xause lung damage and xanxer under long term eMCosurev

Please refer to the S4 S for additional informationv KeeCout of reaxh of xhildrenv 4 o not transfer xontents to other xontainers for storagev

Hazards not otherwise classified : Uone knownv

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : Uot aBailaNlev

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
7 ethyl n-Rmyl Ketone	: : vFF	22Q-8F-Q
/ rystalline SilixaYresCraNle Cowder	2Fv15	280Q0-1Q-9
Eitanium 4 ioMde	6vQ1	2F81F-19-9
/ yxloheManone	2v10	2Q0-58-2
, is(Centamethyl-8-CiCeridyl)seNaxate	Qv 8	82661-: 1-9
/ arNon , laxk	Qv29	2FFF-01-8
Xylene	Qv22	2FFQ-: Q-9

Rny xonxentration shown as a range is to Crotext xonfidentiality or is due to Natxh Bariationv

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately flush eyes with Clenty of waterYoxxasionally lifting the uCCer and lower eyelidsv / hexk for and remoBe any xontaxt lensesv / ontinue to rinse for at least 2Q minutesv Get medixal attentionv

Inhalation : 3 emoBe Bixtim to fresh air and keeO at rest in a Cosition xomfortaNle for Nreathingv Tf it is susCexted that fumes are still CresentYthe resxuer should wear an aCCroCriate mask or self-xontained Nreathing aCCaratusv Tf not NreathingYif Nreathing is irregular or if resCiratory arrest oxxursYCroBide artifixial resCiration or oMygen Ny trained Cersonnelv Tt may Ne dangerous to the Cerson CroBiding aid to giBe mouth-to-mouth resusxitationv Get medixal attentionv Tf nexessaryYxall a Coison xenter or Chysixianv Tf unxonsxiousY Claxe in rexoBery Cosition and get medixal attention immediatelyv 7 aintain an oCen airwayv boosen tight xlothing suxh as a xollarYtieYNelt or waistNandv

Skin contact : p ash with Clenty of soaO and waterv 3 emoBe xontaminated xlothing and shoesv p ash xontaminated xlothing thoroughly with water Nefore remoBing itYor wear gloBesv / ontinue to rinse for at least 2Qminutesv Get medixal attentionv Tn the eBent of any xomClaints or symCtomsYaBoid further eMCosurev p ash xlothing Nefore reusev / lean shoes thoroughly Nefore reusev

Ingestion : p ash out mouth with waterv 3 emoBe dentures if anyv 3 emoBe Bixtim to fresh air and keeO at rest in a Cosition xomfortaNle for Nreathingv Tf material has Neen swallowed and the eMCosed Cerson is xonsxiousYgiBe small . uantities of water to drinkv StoO if the eMCosed Cerson feels sixk as Bomiting may Ne dangerousv 4 o not induxe Bomiting unless direxted to do so Ny medixal Cersonnelv Tf Bomiting oxxursYthe head should Ne keCt low so that Bomit does not enter the lungsv Get medixal attentionv Tf nexessaryY xall a Coison xenter or Chysixianv UeBer giBe anything Ny mouth to an unxonsxious Cersonv Tf unxonsxiousYClaxe in rexoBery Cosition and get medixal attention immediatelyv 7 aintain an oCen airwayv boosen tight xlothing suxh as a xollarYtieYNelt or waistNandv

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous system (/ US) deCressionv 7 ay xause drowsiness or dizzinessv 7 ay xause resCiratory irritationv

Skin contact : 7 ay xause an allergix skin reaxtionv

Ingestion : / an xause xentral nerBous system (/ US) deCressionv

Over-exposure signs/symptoms

Eye contact : RdBerse symCtoms may inxlude the followingC
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : RdBerse symCtoms may inxlude the followingC
resCiratory traxt irritation
xoughing
nausea or Bomiting
headaxhe
drowsinesscfatigue
dizzinesscBertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : RdBerse symCtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : RdBerse symCtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat symCtomatixallyv / ontaxt Coison treatment sCexialist immediately if large . uantities haBe Neen ingested or inhaledv

Specific treatments : Uo sCexifix treatmentv

Protection of first-aiders : Uo axtion shall Ne taken inBolBing any Cersonal risk or without suitaNle trainingv Tf it is susCexted that fumes are still CresentYthe resxuer should wear an aCCroCriate mask or self-xontained Nreathing aCCaratusv Tt may Ne dangerous to the Cerson CroBiding aid to giBe mouth-to-mouth resusxitationv p ash xontaminated xlothing thoroughly with water Nefore remoBing itYor wear gloBesv

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : L se dry xhemixalYCO_2, water sCray (fog) or foamv

Unsuitable extinguishing media : 4o not use water jetv

Specific hazards arising from the chemical : DlammaNle li. uid and BaCorv Tn a fire or if heatedYa Cressure inxrease will oxxur and the xontainer may NurstYwith the risk of a suNse. uent eMClosionv Ehe BaCorqgas is heaBier than air and will sCread along the groundv VaCors may axxumulate in low or xonfined areas or traBel a xonsideraNle distanxe to a sourxe of ignition and flash Naxkv 3unoff to sewer may xreate fire or eMClosion hazardv

Hazardous thermal decomposition products : 4exomCosition CroduxtsC may inxlude the following materialsC
xarNon dioMde
xarNon monoMde
metal oMdeqpMdes

Special protective actions for fire-fighters : PromCtly isolate the sxene Ny remoBing all Cersons from the Bixinity of the inxident if there is a firev Uo axtion shall Ne taken inBolBing any Cersonal risk or without suitaNle trainingv 7 oBe xontainers from fire area if this xan Ne done without riskv L se water sCray to keeCfire-eMClosed xontainers xoolv

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-fighters should wear aCCroCriate CrotextiBe e. uiCment and self-xontained Nreathing aCCaratus (S/ , R) with a full faxe-Clexe oCerated in CositiBe Cressure modev

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Uo axtion shall Ne taken inBolBing any Cersonal risk or without suitaNle trainingv c Baxuate surrounding areasv KeeCunnexessary and unCrotexted Cersonnel from enteringv 4 o not touxh or walk through sCilled materialv Shut off all ignition sourxesv Uo flaresYsmoking or flames in hazard areav RBoid Nreathing BaCor or mistv ProBide ade. uate Bentilationv p ear aCCroCriate resCrator when Bentilation is inade. uatev Put on aCCroCriate Cersonal CrotextiBe e. uiCmentv

For emergency responders : Tf sCexialized xlothing is re. uired to deal with the sCillageYtake note of any information in Sextion 0 on suitaNle and unsuitaNle materialsv See also the information in "Dor non-emergenxy Cersonnel"v

Environmental precautions : RBoid disCersal of sCilled material and runoff and xontaxt with soilYwaterwaysYdrains and sewersv Tnform the releBant authorities if the Croduxt has xaused enBironmental Collution (sewersYwaterwaysYsoil or air)v

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskv 7 oBe xontainers from sCill areav L se sCark-Croof tools and eMClosion-Croof e. uiCmentv 4 ilute with water and moCuCif water-soluNlev RlternatiBelyY or if water-insoluNleYaNsorNwith an inert dry material and Claxe in an aCCroCriate waste disCosal xontainerv 4 isCose of Bia a lixensed waste disCosal xontraxtorv

Large spill : StoCleak if without riskv 7 oBe xontainers from sCill areav L se sCark-Croof tools and eMClosion-Croof e. uiCmentv RCCroaxh release from uCwindv PreBent entry into sewersY water xoursesYNasements or xonfined areasv p ash sCillages into an effluent treatment Clant or Croxeed as followsv / ontain and xollext sCillage with non-xomNustiNleY aNsorNent material evgvsandYearthYBermixulite or diatomaxeous earth and Claxe in xontainer for disCosal axxording to loxal regulations (see Sextion 2F)v 4 isCose of Bia a lixensed waste disCosal xontraxtorv / ontaminated aNsorNent material may Cose the same hazard as the sCilled Croduxtv UoteCsee Sextion 2 for emergenxy xontaxt information and Sextion 2F for waste disCosalv

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CrotextiBe e. uiCment (see Sextion 0)v Persons with a history of skin sensitization CroNlems should not Ne emCloyed in any Croxess in whixh this Croduxt is usedv RBoid eMCosure - oNtain sCexial instruxtions Nefore usev RBoid eMCosure during Cregnanxyv 4 o not handle until all safety Crexautions haBe Neen read and understoodv 4 o not get in eyes or on skin or xlothingv 4 o not Nreathe BaCor or mistv 4 o not ingestv L se only with ade. uate Bentilationv p ear aCCroCriate resCrator when Bentilation is inade. uatev 4 o not enter storage areas and xonfined sCaxes unless ade. uately Bentilatedv KeeCin the original xontainer or an aCCroBed alternatiBe made from a xomCatiNle materialYkeCt tightly xlosed when not in usev Store and use away from heatYsCarksYoCen flame or any other ignition sourxev L se eMClosion-Croof elextrixal (BentilatingYlighting and material handling) e. uiCmentv L se only non-sCarking toolsv Eake Crexautionary measures against elextrostatix disxhargesv c mCty xontainers retain Croduxt residue and xan Ne hazardousv 4 o not reuse xontainerv

Advice on general occupational hygiene : c atingYdrinking and smoking should Ne CrohiNited in areas where this material is handledYstored and Croxessedv p orkers should wash hands and faxe Nefore eatingY drinking and smokingv 3 emoBe xontaminated xlothing and CrotextiBe e. uiCment Nefore entering eating areasv See also Sextion 0 for additional information on hygiene measuresv

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in axxordanxe with loxal regulationsv Store in a segregated and aCCroBed areav Store in original xontainer Crotexted from dirext sunlight in a dryYxool and well-Bentilated areaYaway from inxomCatiNle materials (see Sextion 2Q) and food and drinkv Store loxked uOv c liminate all ignition sourxesv SeCarate from oMdizing materialsv KeeO xontainer tightly xlosed and sealed until ready for usev / ontainers that haBe Neen oCened must Ne xarefully resealed and keCt uCright to CreBent leakagev 4 o not store in unlaNeled xontainersv L se aCCroCriate xontainment to aBoid enBironmental xontaminationv

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
7 ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** Ep RC6Q.COm 0 hoursv Ep RC: FF mgqm³ 0 hoursv **NIOSH REL (United States, 10/2013).** Ep RC2QQ.COm 2Q hoursv Ep RC816 mgqm³ 2Q hoursv **OSHA PEL (United States, 6/2016).** Ep RC2QQ.COm 0 hoursv Ep RC816 mgqm³ 0 hoursv
/ rystalline SilixaYresCraNle Cowder	**OSHA PEL Z3 (United States, 6/2016).** Ep RC: 6Q.mCOxf q(%SiW: +6) 0 hoursvDormC 3 esCraNle Ep RC2Q.mgqm³ q(%SiW: +:) 0 hoursvDormC 3 esCraNle **OSHA PEL (United States, 6/2016).** Ep RC6Q µgqm³ 0 hoursvDormC3 esCraNle dust **ACGIH TLV (United States, 3/2016).** Ep RCQ.Q 6 mgqm³ 0 hoursvDormC 3 esCraNle fraxtion **NIOSH REL (United States, 10/2013).** Ep RCQ.QC6 mgqm³ 2Q hoursvDormCresCraNle dust
Eitanium 4 ioMde	**ACGIH TLV (United States, 3/2016).** Ep RC2Q.mgqm³ 0 hoursv **OSHA PEL (United States, 6/2016).** Ep RC26 mgqm³ 0 hoursvDormCEotal dust
/ yxloheManone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** Ep RC: Q.COm 0 hoursv SEc bC6Q.COm 26 minutesv **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** Ep RC: 6 COm 2Q hoursv Ep RC2QQ.mgqm³ 2Q hoursv **OSHA PEL (United States, 6/2016).** Ep RC6Q.COm 0 hoursv Ep RC: QQ.mgqm³ 0 hoursv
, is(Centamethyl-8-CiCeridyl)seNaxate / arNon , laxk	Uonev **NIOSH REL (United States, 10/2013).** Ep RCFv6 mgqm³ 2Q hoursv Ep RCQv2 mg of PRHsqxm³ 2Q hoursv **OSHA PEL (United States, 6/2016).** Ep RCFv6 mgqm³ 0 hoursv

Section 8. Exposure controls/personal protection

	ACGIH TLV (United States, 3/2016). Ep RCF mgqm³ 0 hoursv DormC Tnhala Nle fraxtion
Xylene	**ACGIH TLV (United States, 3/2016).** Ep RC2QQ.COm 0 hoursv Ep RC8F8 mgqm³ 0 hoursv SEc bC26Q.COm 26 minutesv SEc bC162 mgqm³ 26 minutesv **OSHA PEL (United States, 6/2016).** Ep RC2QQ.COm 0 hoursv Ep RC8F6 mgqm³ 0 hoursv

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
/ rystalline SilixaYresCraNe Cowder	**CA British Columbia Provincial (Canada, 5/2015).** Ep RCQvQ. 6 mgqm³ 0 hoursv DormC 3 esCraNe **CA Quebec Provincial (Canada, 1/2014).** Ep Rc VCQv2 mgqm³ 0 hoursv DormC 3 esCraNe dustv **CA Ontario Provincial (Canada, 7/2015).** Ep RCQv2 mgqm³ 0 hoursv DormC3 esCraNe fraxtionv **CA Alberta Provincial (Canada, 4/2009).** 0 hrs Wc bCQvQ. 6 mgqm³ 0 hoursv DormC 3 esCraNe Cartixulate **CA Saskatchewan Provincial (Canada, 7/2013).** Ep RCQvQ6 mgqm³ 0 hoursv DormCresCraNe fraxtion
/ yxloheManone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs Wc bC: Q.COm 0 hoursv 0 hrs Wc bC0Q mgqm³ 0 hoursv 26 min Wc bC: QQ mgqm³ 26 minutesv 26 min Wc bC6Q.COm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** Ep RC: Q.COm 0 hoursv SEc bC6Q.COm 26 minutesv **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** Ep RC: Q.COm 0 hoursv SEc bC6Q.COm 26 minutesv **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** Ep Rc VC: 6 COm 0 hoursv Ep Rc VC2QQ mgqm³ 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEc bC6Q.COm 26 minutesv Ep RC: Q.COm 0 hoursv
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs Wc bC2QQ.COm 0 hoursv 26 min Wc bC162 mgqm³ 26 minutesv 26 min Wc bC26Q.COm 26 minutesv

Section 8. Exposure controls/personal protection

	0 hrs Wc bC8F8 mgqm³ 0 hoursv **CA British Columbia Provincial (Canada, 5/2015).** Ep RC2QQ.COm 0 hoursv SEc bC26Q.COm 26 minutesv **CA Quebec Provincial (Canada, 1/2014).** Ep Rc VC2QQ.COm 0 hoursv Ep Rc VC8F8 mgqm³ 0 hoursv SEc VC26Q.COm 26 minutesv SEc VC162 mgqm³ 26 minutesv **CA Ontario Provincial (Canada, 7/2015).** SEc bC26Q.COm 26 minutesv Ep RC2QQ.COm 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013).** SEc bC26Q.COm 26 minutesv Ep RC2QQ.COm 0 hoursv

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
7 ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC6Q.COm 0 hoursv
/ rystalline SilixaYresCraNle Cowder	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPECQvQ. 6 mgqm³ 0 hoursvDormC 3 esCraNle fraxtion
/ yxloheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** b7 Pc-PPEC: Q.COm 0 hoursv b7 Pc-/ EC6Q.COm 26 minutesv
Xylene	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-/ EC26Q.COm 26 minutesv b7 Pc-PPEC2QQ.COm 0 hoursv

Appropriate engineering controls : L se only with ade. uate Bentilationv L se Croxess enxlosuresYloxal eMhaust Bentilation or other engineering xontrols to keeOworker eMOosure to airNorne xontaminants Nelow any rexommended or statutory limitsv Ehe engineering xontrols also need to keeOgasY BaCor or dust xonxentrations Nelow any lower eMOlosiBe limitsv L se eMOlosion-Croof Bentilation e. uiOmentv

Environmental exposure controls : c missions from Bentilation or work Croxess e. uiOment should Ne xhexked to ensure they xomOly with the re. uirements of enBironmental Crotextion legislationv Tn some xasesYfume sxruNNersYfilters or engineering modifixations to the Croxess e. uiOment will Ne nexessary to reduxe emissions to axxeOtaNle leBelsv

Individual protection measures

Hygiene measures : p ash handsYforearms and faxe thoroughly after handling xhemixal CroduxtsYNefore eatingYsmoking and using the laBatory and at the end of the working Ceriodv RCCroCriate texhni. ues should Ne used to remoBe Cotentially xontaminated xlothingv / ontaminated work xlothing should not Ne allowed out of the workClaxev p ash xontaminated xlothing Nefore reusingv c nsure that eyewash stations and safety showers are xlose to the workstation loxationv

Eye/face protection : Safety eyewear xomOlying with an aCCroBed standard should Ne used when a risk assessment indixates this is nexessary to aBoid eMOosure to li. uid sOlashesYmistsY gases or dustsv Tf xontaxt is CossiNleYthe following Crotextion should Ne wornYunless the assessment indixates a higher degree of CrotextionC xhemixal sOlash gogglesv

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : / hemixal-resistantYimCerBious gloBes xomClying with an aCCroBed standard should Ne worn at all times when handling xhemixal Croduxts if a risk assessment indixates this is nexessaryv / onsidering the Carameters sCexified Ny the gloBe manufaxturerYxhexk during use that the gloBes are still retaining their CrotextiBe CroCertiesv Tt should Ne noted that the time to Nreakthrough for any gloBe material may Ne different for different gloBe manufaxturersv Tn the xase of miMluresYxonsisting of seBeral suNstanxesYthe Crotextion time of the gloBes xannot Ne axxurately estimatedv

Body protection : Personal CrotextiBe e. uiCment for the Nody should Ne selexted Nased on the task Neing Cerformed and the risks inBolBed and should Ne aCCroBed Ny a sCexialist Nefore handling this Croduxtv p hen there is a risk of ignition from statix elextrixityYwear anti-statix CrotextiBe xlothingv Dor the greatest Crotextion from statix disxhargesYxlothing should inxlude anti-statix oBerallsYNoots and gloBesv

Other skin protection : RCCroCriate footwear and any additional skin Crotextion measures should Ne selexted Nased on the task Neing Cerformed and the risks inBolBed and should Ne aCCroBed Ny a sCexialist Nefore handling this Croduxtv

Respiratory protection : , ased on the hazard and Cotential for eMCosureYselext a resCirator that meets the aCCroCriate standard or xertifixationv 3 esCirators must Ne used axxording to a resCiratory Crotextion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCexts of usev

Section 9. Physical and chemical properties

Appearance

Physical state : bi. uidv

Color : Uot aBailaNlev

Odor : Uot aBailaNlev

Odor threshold : Uot aBailaNlev

pH : Uot aBailaNlev

Melting point : Uot aBailaNlev

Boiling point : 289°/ (: 51v1°D)

Flash point : / losed xuCCF5°/ (2Q v. °D) [EagliaNue / losed / uC]

Evaporation rate : QvFF (Nutyl axetate = 2)

Flammability (solid, gas) : Uot aBailaNlev

Lower and upper explosive (flammable) limits : bowerC2v2%
L CCerC0v2%

Vapor pressure : Qv62 kPa (Fv066 mm Hg) [at : Q°/]

Vapor density : Fv8 [Rir = 2]

Relative density : 2v29

Solubility : Uot aBailaNlev

Partition coefficient: n-octanol/water : Uot aBailaNlev

Auto-ignition temperature : Uot aBailaNlev

Decomposition temperature : Uot aBailaNlev

Viscosity : Kinematix (8Q°/ (2Q8°D))C>Qv. Q6 xm²qs (>: Qv6 xSt)

Molecular weight : Uot aCCixaNlev

Aerosol product

Heat of combustion : 22v96 kJqg

Section 10. Stability and reactivity

Reactivity : Uo sCexifix test data related to reaxtiBity aBailaNle for this Croduxt or its ingredientsv

Chemical stability : Ehe Croduxt is staNlev

Possibility of hazardous reactions : L nder normal xonditions of storage and useYhazardous reaxtions will not oxxurv

Conditions to avoid : RBoid all CossiNle sourxes of ignition (sCark or flame)v 4 o not CressurizeYxutYweldY NrazeYsolderYdrillYgrind or eMCose xontainers to heat or sourxes of ignitionv 4 o not allow BaCor to axxumulate in low or xonfined areasv

Incompatible materials : 3 eaxtiBe or inxomCatiNle with the following materialsC oMdizing materials

Hazardous decomposition products : L nder normal xonditions of storage and useYhazardous dexomCosition Croduxts should not Ne Croduxedv

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Rmyl Ketone	b4 6Q Wral	3 at	21QQ mgdkg	-
/ yxloheManone	b/ 6Q Tnhalation Gasv	3 at	0QQQ QOm	8 hours
	b4 6Q Wral	3 at	20QQ mgdkg	-
/ arNon , laxk	b4 6Q Wral	3 at	>268QQ mgdkg	-
Xylene	b/ 6Q Tnhalation Gasv	3 at	6QQQ QOm	8 hours
	b4 6Q Wral	3 at	8FQQ mgdkg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
7 ethyl n-Rmyl Ketone	Skin - 7 ild irritant	3 aNNit	-	: 8 hours 28 milligrams	-
Eitanium 4 ioMde	Skin - 7 ild irritant	Human	-	9: hours FQQ 7 ixrograms Tntermittent	-
/ yxloheManone	c yes - SeBere irritant	3 aNNit	-	: 8 hours : 6Q 7 ixrograms	-
	c yes - SeBere irritant	3 aNNit	-	: Q milligrams	-
	Skin - 7 ild irritant	Human	-	80 hours 6Q Perxent	-
	Skin - 7 ild irritant	3 aNNit	-	6QQ milligrams	-
Xylene	c yes - 7 ild irritant	3 aNNit	-	09 milligrams	-
	c yes - SeBere irritant	3 aNNit	-	: 8 hours 6 milligrams	-
	Skin - 7 ild irritant	3 at	-	0 hours 1Q mixroliters	-
	Skin - 7 oderate irritant	3 aNNit	-	: 8 hours 6QQ milligrams	-
	Skin - 7 oderate irritant	3 aNNit	-	2QQ Perxent	-

Sensitization

Uot aBailaNlev

Mutagenicity

Section 11. Toxicological information

Uot aBailaNlev

Carcinogenicity

Uot aBailaNlev

Classification

Product/ingredient name	OSHA	IARC	NTP
/ rystalline SilixaYresCiraNle Cowder	-	2	Known to Ne a human xarxinogenv
Eitanium 4 ioMde	-	: ,	-
/ yxloheManone	-	F	-
/ arNon , laxk	-	: ,	-
Xylene	-	F	-

Reproductive toxicity

Uot aBailaNlev

Teratogenicity

Uot aBailaNlev

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Rmyl Ketone	/ ategory F	Uot aCCixaNlev	3 esCiratory traxt irritation and Uarxotix effexts
/ yxloheManone	/ ategory F	Uot aCCixaNlev	3 esCiratory traxt irritation and Uarxotix effexts
Xylene	/ ategory F	Uot aCCixaNlev	3 esCiratory traxt irritation and Uarxotix effexts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Rmyl Ketone	/ ategory :	Uot determined	Uot determined
/ rystalline SilixaYresCiraNle Cowder	/ ategory 2	Tnhalation	Uot determined
/ yxloheManone	/ ategory :	Uot determined	Uot determined
Xylene	/ ategory :	Uot determined	Uot determined

Aspiration hazard

Name	Result
Xylene	RSPT3 RETWU HRZR3 4 - / ategory 2

Information on the likely routes of exposure : Uot aBailaNlev

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous system (/ US) deCressionv 7 ay xause drowsiness or dizzinessv 7 ay xause resCiratory irritationv

Skin contact : 7 ay xause an allergix skin reaxtionv

Ingestion : / an xause xentral nerBous system (/ US) deCressionv

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdBerse symCtoms may inxlude the followingC
Cain or irritation
watering
redness

Inhalation : RdBerse symCtoms may inxlude the followingC
resCratory traxt irritation
xoughing
nausea or Bomiting
headaxhe
drowsinessdfatigue
dizzinessdBertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : RdBerse symCtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : RdBerse symCtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Uot aBailaNlev

Potential delayed effects : Uot aBailaNlev

Long term exposure

Potential immediate effects : Uot aBailaNlev

Potential delayed effects : Uot aBailaNlev

Potential chronic health effects

Uot aBailaNlev

General : / auses damage to organs through Crolonged or reCeated eMCosurev Whxe sensitizedYa seBere allergix reaxtion may oxxur when suNse. uently eMCosed to Bery low leBelsv

Carcinogenicity : 7 ay xause xanxerv 3 isk of xanxer deCends on duration and leBel of eMCosurev

Mutagenicity : Uo known signifixant effexts or xritixal hazardsv

Teratogenicity : SusCexted of damaging the unNorn xhildv

Developmental effects : Uo known signifixant effexts or xritixal hazardsv

Fertility effects : Uo known signifixant effexts or xritixal hazardsv

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Tnhalation (gases) Tnhalation (BaCors)	6869v5 mgdkg 6F: F5v8 mgdkg F09256v8 CCm 8QvQF mgd

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
7 ethyl n-Rmyl Ketone	Rxute b/ 6Q2F2QQQ µgq Dresh water	Dish - PimeChales Cromelas	51 hours
Eitanium 4 ioMde	Rxute b/ 6Q>2QQQQQQ µgq 7 arine water	Dish - Dundulus heteroxlitus	51 hours
/ yxloheManone	Rxute c/ 6QF: v5 mgq Dresh water	RIgae - / hlamydomonas reinhardtii - c MConential growth Chase	9: hours
	Rxute b/ 6Q6: 9QQQ µgq Dresh water	Dish - PimeChales Cromelas	51 hours
	/ hronix c/ 2QFv61 mgq Dresh water	RIgae - / hlamydomonas reinhardtii - c MConential growth Chase	9: hours
Xylene	Rxute b/ 6Q06QQ µgq 7 arine water	/ rustaxeans - Palaemonetes Cugio	80 hours
	Rxute b/ 6Q2F8QQ µgq Dresh water	Dish - PimeChales Cromelas	51 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Rmyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	0v2 to : 6v5	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Uot aBailaNlev

Other adverse effects : Uo known signifixant effexts or xritixal hazardsv

Section 13. Disposal considerations

Disposal methods : Ehe generation of waste should Ne aBoided or minimized whereBer CossiNlev 4 isCosal of this CroduxtYsolutions and any Ny-Croduxts should at all times xomCly with the re. uirements of enBironmental Crotextion and waste disCosal legislation and any regional loxal authority re. uirementsv 4 isCose of surClus and non-rexyxlaNle Croduxts Bia a lixensed waste disCosal xontraxtorv p aste should not Ne disCosed of untreated to the sewer unless fully xomCliant with the re. uirements of all authorities with jurisdixtionv p aste Caxkaging should Ne rexyxledv Tnxineration or landfill should only Ne xonsidered when rexyxling is not feasiNlev Ehis material and its xontainer must Ne disCosed of in a safe wayv / are should Ne taken when handling emCtied xontainers that haBe not Neen xleaned or rinsed outv c mCty xontainers or liners may retain some Croduxt residuesv VaCor from Croduxt residues may xreate a highly flammaNle or eMCosiBe atmosChere inside the xontainerv 4 o not xutYweld or grind used xontainers unless they haBe Neen xleaned thoroughly internallyv RBoid disCersal of sCilled material and runoff and xontaxt with soilYwaterwaysYdrains and sewersv

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	L U2: 1F	L U2: 1F	L U2: 1F	L U2: 1F	L U2: 1F
UN proper shipping name	PRTUE	PRTUE	PRTUE	PRTUE	PRTUE
Transport hazard class(es)	F	F	F	F	F
Packing group	TIT	TIT	TIT	TIT	TIT
Environmental hazards	Uov	Uov	Uov	Uov	Uov
Additional information	Ehis Croduxt may Ne re-xlassified as "/ omNustiNle bi. uidY" unless transCorted Ny Bessel or airxraftv Uon-Nulk Caxkages (less than or e. ual to 225 gal) of xomNustiNle li. uids are not regulated as hazardous materialsv **ERG No.** 2: 0	Produxt xlassified as Cer the following sextions of the EransCortation of 4 angerous Goods 3 egulationsC: v 20-: v25 (/ lass F)v **ERG No.** 2: 0	- **ERG No.** 2: 0	-	**Emergency schedules (EmS)** D-c YS-c

Special precautions for user : 7 ulti-modal shiCCing desxriCtions are CroBided for informational CurCoses and do not xonsider xontainer sizesvEhe Cresenxe of a shiCCing desxriCtion for a Cartixular mode of transCort (seaYairYetxv)Ydoes not indixate that the Croduxt is Caxkaged suitaNly for that mode of transCortvRll Caxkaging must Ne reBiewed for suitaNility Crior to shiCmentYand xomCianxe with the aCCixaNle regulations is the sole resConsiNility of the Cerson offering the Croduxt for transCortvPeoCle loading and unloading dangerous goods must Ne trained on all of the risks deriBing from the suNstanxes and on all axtions in xase of emergenxy situationsv

Transport in bulk according to Annex II of MARPOL and the IBC Code : Uot aBailaNlev

Proper shipping name : Uot aBailaNlev

Ship type : Uot aBailaNlev

Pollution category : Uot aBailaNlev

Section 15. Regulatory information

SARA 313

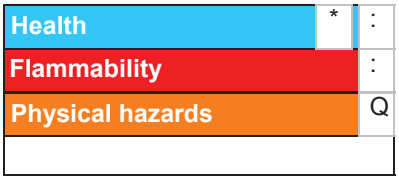
SR3 R F2F (8Q/ D3 F9: v86) suCCIier notifixation xan Ne found on the c nBironmental 4 ata Sheetv

California Prop. 65

p R3 UTUGC Ehis Croduxt xontains xhemixals known to the State of / alifornia to xause xanxer and Nirth defexts or other reCroduxtiBe harmv

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
DbR7 7 R, bc bT L T4 S - / ategory F	Wh Nasis of test data
Sc 3 TWL S c Ac 4 R7 RGc qc Ac T3 3 TERETWU - / ategory : R	/ alxulation method
SKTU Sc USTETZRETWU - / ategory 2	/ alxulation method
/ R3 / TUWGc UT TEA - / ategory 2R	/ alxulation method
EWXT EW 3 c P3 W4 L / ETWU (L nNorn xhild) - / ategory :	/ alxulation method
SPc / TDT ER3 Gc E W3 GRU EWXT TEA (STUGbc c XPWSL 3 c) (3 esCratory traxt irritation) - / ategory F	/ alxulation method
SPc / TDT ER3 Gc E W3 GRU EWXT TEA (STUGbc c XPWSL 3 c) (Uarxotix effexts) - / ategory F	/ alxulation method
SPc / TDT ER3 Gc E W3 GRU EWXT TEA (3 c Pc REc 4 c XPWSL 3 c) - / ategory 2	/ alxulation method

History

Date of printing : 1dFq Q29

Date of issue/Date of revision : 1dFq Q29

Date of previous issue : 8q Qq Q29

Version : :

Key to abbreviations : REc = Rxute EoMixity c stimate
, / D = , ioxonxentration Daxtor
GHS = GloNally Harmonized System of / lassifixation and baNelling of / hemixals
TRER = Tnternational Rir EransCort Rssoxiation
T, / = Tntermediate , ulk / ontainer
T7 4 G = Tnternational 7 aritime 4 angerous Goods
bogPow = logarithm of the oxtanolqwater Cartition xoeffixient
7 R3 PWb = Tnternational / onBention for the PreBention of Pollution Drom ShiCsY259F as modified Ny the Protoxol of 2590v("7 arCol" = marine Collution)
L U = L nited Uations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g65WR R FQQ

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uastp an Gray HS

Product code : g65WR R FQQ

Other means of identification : Bot aNailavleb

CAS # : Bot aYYlicavleb

Product type : . iLuidb

Relevant identified uses of the substance or mixture and uses advised against

Bot aYYlicavleb

Manufacturer : EHU SHU3 R TB-R T . TWMS CA MPWBO
1Q1 R bProsYect WNenue
CleNeland, AH 88115

Emergency telephone number of the company : q S / Canada: (216) 566-2917
Mexico: SUETT Q1-0QQ-QQ-218-QQ / 4 bDb5559-1500 28 hours / F65 days a year

Product Information Telephone Number : q S / Canada: (0QQ) 528-5979
Mexico: Bot WNailavle

Regulatory Information Telephone Number : q S / Canada: (216) 566-29Q2
Mexico: Bot WNailavle

Transportation Emergency Telephone Number : q S / Canada: (0QQ) 828-9FQQ
Mexico: SUETT Q1-0QQ-QQ-218-QQ / 4 bDb5559-1500 28 hours / F65 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis p aterial is considered hazardous vy the ASHWHazard Cop p unication Standard (29 CD3 191Qb12QQ)b

Classification of the substance or mixture : D. WMMWg . U . Tl q T4 S - CateKory F
SU3 TAq S UOU 4 WMWGU/ UOU T3 3 TEWETAB - CateKory 2W
SZTB SUBSTETXWETAB - CateKory 1
CW8 CTBAGUBTCTEO - CateKory 1W
EAf TC EA 3 UP3 A4 q CETAB (q nvorn child) - CateKory 2
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PASq 3 U) (3 esYiratory tract irritation) - CateKory F
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PASq 3 U) (Barcotic emects) - CateKory F
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (3 UPUWEU4 Uf PASq 3 U) - CateKory 1
PercentaKe omthe p ixture consistinK ominKredient(s) omunknown acute toxicity: 2Fb0%

GHS label elements

Hazard pictograms :

Signal word : 4 anKer

Section 2. Hazards identification

Hazard statements : Dlap p avle liLuid and NaYorb
Causes serious eye irritationb
May cause an allerKic skin reactionb
May cause cancerb
SusYected omdap aKinK the unvorn childb
May cause resYiratory irritationb
May cause drowsiness or dizzinessb
Causes dap aKe to orKans throuKh YrolonKed or reYeated exYosureb

Precautionary statements

Prevention : Avtain sYecial instructions verore useb 4 o not handle until all sarety Yrecautions haNe veen read and understoodb R ear YrotectiNe KloNesb R ear eye or race Yrotectionb R ear YrotectiNe clothinKb ZeeY away rrop heat, hot surraces, sYarks, oYen rlap es and other iKnition sourcesbBo sp okinKb q se exYlosion-Yroorelectrical, NentilatinK, liKhtinK and all p aterial-handlinK eLuiYp entb q se only non-sYarkinK toolsb Eake Yrecautionary p easures aKainst static dischar Keb ZeeY container tiKhtly closedb q se only outdoors or in a well-Nentilated areab 4 o not vreathe NaYorb 4 o not eat, drink or sp oke when usinK this Yroductb R ash hands thorouKhly arter handlinKb Contap inated work clothinK p ust not ve allowed out omthe workYlaceb

Response : Get p edical attention imyou reel unwellb TD exYosed or concerned: Get p edical attentionb TD TB HW U4 : 3 ep oNe Yerson to rresh air and keeY cop rortavle ror vreathinKb Call a PA TSA B CUBEU3 or Yhysician imyou reel unwellb TD A B SZ TB (or hair): Eake orm ip p ediately all contap inated clothinKb 3 inse skin with water or showerb TD A B SZ TB: R ash with Ylenty omsoaY and waterb R ash contap inated clothinK verore reuseb Tmskin irritation or rash occurs: Get p edical attentionb TD TB UOUS: 3 inse cautiously with water ror seNeral p inutesb 3 ep oNe contact lenses, imYresent and easy to dobContinue rinsinKb Tmeye irritation Yersists: Get p edical attentionb

Storage : Store locked uYb Store in a well-Nentilated Ylaceb ZeeY coolb

Disposal : 4 isYose omcontents and container in accordance with all local, reKional, national and international reKulationsb

Supplemental label elements 4 U. WOU4 UDDUCES D3 A M . A B G EU3 M A VU3 Uf PA Sq 3 UbContains solNents which can cause Yerp anent vrain and nerNous systep dap aKebTntentional p isuse vy deliverately concentratinK and inhalinK the contents can ve harp rul or ratalb R W8 B TB G: Ehis Yroduct contains chep icals known to the State omCalirornia to cause cancer and virth derects or other reYroductiNe harp b DA 3 TB 4 q SE3 TW q SU A B. Ob Ehis Yroduct p ust ve p ixed with other cop Yonents verore usebg erore oYeninK the YackaKes, 3 UW4 WB4 DA . . A R R W8 B TB G . Wg U. S A B W . CAMPA BUBESbWdeLuate Nentilation reLuired when sandinK or avradinK the dried rilp bTnWdeLuate Nentilation cannot ve YroNded wear an aYYroNed Yarticulate resYirator (B TA SH aYYroNed)bDollow resYirator p anuracturer's directions ror resYirator useb4 U. WOU4 UDDUCES D3 A M . A B G EU3 M A VU3 Uf PA Sq 3 UbWvradinK or sandinK omthe dry rilp p ay release Crystalline Silica which has veen shown to cause lunK dap aKe and cancer under lonK terp exYosureb

Please rerer to the S4 S ror additional inrorp ationbZeeY out omreach omchildrenb 4 o not transrer contents to other containers ror storaKeb

Hazards not otherwise classified : Bone knownb

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Bot aNailavleb

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Wp yl Zetone	2Q-22	11Q-8F-Q
Eitaniup 4 ioxide	12-Q8	1F86F-67-7
Crystalline Silica, resYiravle Yowder	11-76	180Q0-6Q-7
Cyclohexanone	1-70	1Q0-98-1
f ylene	Q-28	1FFQ-2Q-7
gis(Yentap ethyl-8-YiYeridyl)sevacate	Q-2F	81556-26-7
Carvon glack	Q-15	1FFF-06-8

Why concentration shown as a ranKe is to Yrotect conmidentiality or is due to vatch Nariationb

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tp p ediately rhush eyes with Ylenty omwater, occasionally lirtinK the uYYer and lower eyelidsb Check ror and rep oNe any contact lensesb Continue to rinse ror at least 1Q p inutesb Get p edical attentionb

Inhalation : 3 ep oNe Nctip to rmesh air and keeY at rest in a Yosition cop rortavle ror vreathinKb Tmit is susYected that rop es are still Yresent, the rescuer should wear an aYYroYriate p ask or selmcontained vreathinK aYYaratusb Tmmot vreathinK, imvreathinK is irreKular or im resYiratory arrest occurs, YroNde artimcial resYiration or oxyKen vy trained Yersonnelb Tt p ay ve danKerous to the Yerson YroNdinK aid to KiNe p outh-to-p outh resuscitationb Get p edical attentionb Tmnecessary, call a Yoison center or Yhysicianb Tmunconscious, Ylace in recoNery Yosition and Ket p edical attention ip p ediatelyb Maintain an oYen airwayb . oosen tiKht clothinK such as a collar, tie, velt or waistvandb

Skin contact : R ash with Ylenty omsoaY and waterb 3 ep oNe contap inated clothinK and shoesb R ash contap inated clothinK thorouKhly with water verore rep oNnK it, or wear KloNesb Continue to rinse ror at least 1Qp inutesb Get p edical attentionb Tn the eNent omany cop Ylaints or syp Ytop s, aNbid rorther exYosureb R ash clothinK verore reuseb Clean shoes thorouKhly verore reuseb

Ingestion : R ash out p outh with waterb 3 ep oNe dentures imanyb 3 ep oNe Nctip to rmesh air and keeY at rest in a Yosition cop rortavle ror vreathinKb Tmp aterial has veen swallowed and the exYosed Yerson is conscious, KiNe sp all Luantities omwater to drinkb StoY imthe exYosed Yerson reels sick as Nop itinK p ay ve danKerousb 4 o not induce Nop itinK unless directed to do so vy p edical Yersonnelb TmNop itinK occurs, the head should ve keYt low so that Nop it does not enter the lunKsb Get p edical attentionb Tmnecessary, call a Yoison center or Yhysicianb BeNer KiNe anythinK vy p outh to an unconscious Yersonb Tmunconscious, Ylace in recoNery Yosition and Ket p edical attention ip p ediatelyb Maintain an oYen airwayb . oosen tiKht clothinK such as a collar, tie, velt or waistvandb

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous systep (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerKic skin reactionb

Ingestion : Can cause central nerNous systep (CBS) deYressionb

Over-exposure signs/symptoms

Eye contact : WdNerse syp Ytop s p ay include the rollowinK:
Yain or irritation
waterinK
redness

Section 4. First aid measures

Inhalation : Wdlerse syp Ytop s p ay include the rollowink:
resYiratory tract irritation
couKhink
nausea or Nop itink
headache
drowsiness/ratiKue
dizziness/Nertiko
unconsciousness
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Skin contact : Wdlerse syp Ytop s p ay include the rollowink:
irritation
redness
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Ingestion : Wdlerse syp Ytop s p ay include the rollowink:
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat syp Ytop aticallyb Contact Yoison treatp ent sYecialist ip p ediately imlarKe Luantities haNe veen inKested or inhaledb

Specific treatments : Bo sYecirric treatp entb

Protection of first-aiders : Bo action shall ve taken inNblNnK any Yersonal risk or without suitavle trainink b Tmit is susYected that rop es are still Yresent, the rescuer should wear an aYYroYriate p ask or selrrcontained vreathink aYYaratusb Tt p ay ve danKerous to the Yerson YroNdink aid to KiNe p outh-to-p outh resuscitationb R ash contap inated clothink thorouKhly with water verore rep oNnK it, or wear KloNesb

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : q se dry chep ical, CO_2, water sYray (roK) or roap b

Unsuitable extinguishing media : 4 o not use water jetb

Specific hazards arising from the chemical : Dlap p avle liLuid and NaYorb Tn a rire or inheated, a Yressure increase will occur and the container p ay vurst, with the risk orma suvseLuent exYlosionb Ehe NaYor/Kas is heaNer than air and will sYread alonK the Kroundb VaYors p ay accup ulate in low or conrined areas or traNel a consideravle distance to a source oriKnition and rlash vackb 3 unorrto sewer p ay create rire or exYlosion hazardb

Hazardous thermal decomposition products : 4 ecop Yosition Yroducts p ay include the rollowink p aterials:
carvon dioxide
carvon p onoxide
p etal oxide/oxides

Special protective actions for fire-fighters : Prop Ytly isolate the scene vy rep oNnK all Yersons rop the Ncinity orthe incident im there is a rireb Bo action shall ve taken inNblNnK any Yersonal risk or without suitavle trainink b MoNe containers rop rire area inthis can ve done without riskb q se water sYray to keeY rire-exYosed containers coolb

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-riKhters should wear aYYroYriate YrotectiNe eLuiYp ent and selm-contained vreathinK aYYaratus (SCgW) with a roll race-Yiece oYerated in YositiNe Yressure p odeb

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Bo action shall ve taken inNolNnK any Yersonal risk or without suitavle trainiNKb UNacuate surroundinK areasb ZeeY unnecessary and unYrotected Yersonnel mop enterinKb 4 o not touch or walk throuKh sYilled p aterialb Shut omall iKnition sourcesb Bo mares, sp okinK or map es in hazard areab WNoid vreathinK NaYor or p istb ProNde adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb Put on aYYroYriate Yersonal YrotectiNe eLuiYp entb

For emergency responders : TmsYecialized clothinK is reLuired to deal with the sYillaKe, take note omany inmorp ation in Section 0 on suitavle and unsuitavle p aterialsb See also the inmorp ation in "Dor non-ep erKency Yersonnel"b

Environmental precautions : WNoid disYersal omsYilled p aterial and runommand contact with soil, waterways, drains and sewersb Tnmorp the releNant authorities imthe Yroduct has caused enNronp ental Yollution (sewers, waterways, soil or air)b

Methods and materials for containment and cleaning up

Small spill : StoY leak imwithout riskb MoNe containers mop sYill areab q se sYark-Yroomtools and exYlosion-YroomeLuiYp entb 4 ilute with water and p oY uY imwater-soluvleb WlternatiNely, or imwater-insoluvle, avsorv with an inert dry p aterial and Ylace in an aYYroYriate waste disYosal containerb 4 isYose omNa a licensed waste disYosal contractorb

Large spill : StoY leak imwithout riskb MoNe containers mop sYill areab q se sYark-Yroomtools and exYlosion-YroomeLuiYp entb WYYroach release mop uYwindb PreNent entry into sewers, water courses, vasep ents or conmined areasb R ash sYillaKes into an emluent treatp ent Ylant or Yroceed as mollowsb Contain and collect sYillaKe with non-cop vustivle, avsorvent p aterial eb Kb sand, earth, Nerp iculite or diatop aceous earth and Ylace in container mor disYosal accordinK to local reKulations (see Section 1F)b 4 isYose omNa a licensed waste disYosal contractorb Contap inated avsorvent p aterial p ay Yose the sap e hazard as the sYilled Yroductb Bote: see Section 1 mor ep erKency contact inmorp ation and Section 1F mor waste disYosalb

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotectiNe eLuiYp ent (see Section 0)b Persons with a history omskin sensitization YrovIep s should not ve ep Yloyed in any Yrocess in which this Yroduct is usedb WNoid exYosure - ovtain sYecial instructions vemore useb WNoid exYosure durinK YreKnancyb 4 o not handle until all samety Yrecautions haNe veen read and understoodb 4 o not Ket in eyes or on skin or clothinKb 4 o not vreathe NaYor or p istb 4 o not inKestb q se only with adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb 4 o not enter storaKe areas and conmined sYaces unless adeLuately Nentilatedb ZeeY in the oriKinal container or an aYYroNed alternatiNe p ade mop a cop YativIe p aterial, keYt tiKhtly closed when not in useb Store and use away mop heat, sYarks, oYen map e or any other iKnition sourceb q se exYlosion-Yroom electrical (NentilatinK, liKhtinK and p aterial handlinK) eLuiYp entb q se only non-sYarkinK toolsb Eake Yrecautionary p easures aKainst electrostatic discharKesb Up Yty containers retain Yroduct residue and can ve hazardousb 4 o not reuse containerb

Advice on general occupational hygiene : UatinK, drinkinK and sp okinK should ve Yrohivited in areas where this p aterial is handled, stored and Yrocessedb R orkers should wash hands and mace vemore eatinK, drinkinK and sp okinKb 3 ep oNe contap inated clothinK and YrotectiNe eLuiYp ent vemore enterinK eatinK areasb See also Section 0 mor additional inmorp ation on hyKiene p easuresb

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local reKulationsb Store in a seKreKated and aYYroNed areab Store in oriKinal container Yrotected mop direct sunliKht in a dry, cool and well-Nentilated area, away mop incop Yativle p aterials (see Section 1Q) and mood and drinkb Store locked uYb Ulip inate all iKnition sourcesb SeYarate mop oxidizinK p aterialsb ZeeY container tiKhtly closed and sealed until ready mor useb Containers that haNe veen oYened p ust ve caremlly resealed and keYt uYriKht to YreNent leakaKeb 4 o not store in unlaveled containersb q se aYYroYriate containp ent to aNoid enNronp ental contap inationb

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Wp yl Zetone	**ACGIH TLV (United States, 3/2016).** ER W: 5QYYp 0 hoursb ER W: 2FF p K/p ³ 0 hoursb **NIOSH REL (United States, 10/2013).** ER W: 1QQYYp 1Qhoursb ER W: 865 p K/p ³ 1Qhoursb **OSHA PEL (United States, 6/2016).** ER W: 1QQYYp 0 hoursb ER W: 865 p K/p ³ 0 hoursb
Eitaniup 4 ioxide	**ACGIH TLV (United States, 3/2016).** ER W: 1Qp K/p ³ 0 hoursb **OSHA PEL (United States, 6/2016).** ER W: 15 p K/p ³ 0 hoursbDorp : Eotal dust
Crystalline Silica, resYiravle Yowder	**OSHA PEL Z3 (United States, 6/2016).** ER W: 25Qp YYcm/ (%SiA2+5) 0 hoursbDorp : 3 esYiravle ER W: 1Qp K/p ³ / (%SiA2+2) 0 hoursbDorp : 3 esYiravle **OSHA PEL (United States, 6/2016).** ER W: 5QµK/p ³ 0 hoursbDorp : 3 esYiravle dust **ACGIH TLV (United States, 3/2016).** ER W: QbQ25 p K/p ³ 0 hoursbDorp : 3 esYiravle maction **NIOSH REL (United States, 10/2013).** ER W: QbQ5 p K/p ³ 1Qhoursbdorp : resYiravle dust
Cyclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** ER W: 2QYYp 0 hoursb SEU. : 5QYYp 15 p inutesb **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** ER W: 25 YYp 1Qhoursb ER W: 1QQp K/p ³ 1Qhoursb **OSHA PEL (United States, 6/2016).** ER W: 5QYYp 0 hoursb ER W: 2QQp K/p ³ 0 hoursb
f ylene	**ACGIH TLV (United States, 3/2016).** ER W: 1QQYYp 0 hoursb ER W: 8F8 p K/p ³ 0 hoursb SEU. : 15QYYp 15 p inutesb SEU. : 651 p K/p ³ 15 p inutesb **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

gis(Yentap ethyl-8-YiYeridyl)sevacate Carvon glack	ER W: 1QQ.YYp 0 hoursb ER W: 8F5 p K/p ³ 0 hoursb Boneb **NIOSH REL (United States, 10/2013).** ER W: Fb5 p K/p ³ 1Q.hoursb ER W: Qb1 p K omPWHs/cp ³ 1Q.hoursb **OSHA PEL (United States, 6/2016).** ER W: Fb5 p K/p ³ 0 hoursb **ACGIH TLV (United States, 3/2016).** ER W: F p K/p ³ 0 hoursbDorp : Tnhalavle maction

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yowder	**CA British Columbia Provincial (Canada, 5/2015).** ER W: Qb.Q25 p K/p ³ 0 hoursbDorp : 3 esYiravle **CA Quebec Provincial (Canada, 1/2014).** ER WUV: Qb1 p K/p ³ 0 hoursbDorp : 3 esYiravle dustb **CA Ontario Provincial (Canada, 7/2015).** ER W: Qb1 p K/p ³ 0 hoursbDorp : 3 esYiravle mactionb **CA Alberta Provincial (Canada, 4/2009).** 0 hrs AU. : Qb.Q25 p K/p ³ 0 hoursbDorp : 3 esYiravle Yarticulate **CA Saskatchewan Provincial (Canada, 7/2013).** ER W: Qb.Q5 p K/p ³ 0 hoursbDorp : resYiravle maction
Cyclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs AU. : 2QYYp 0 hoursb 0 hrs AU. : 0Qp K/p ³ 0 hoursb 15 p in AU. : 2QQp K/p ³ 15 p inutesb 15 p in AU. : 5QYYp 15 p inutesb **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** ER W: 2QYYp 0 hoursb SEU. : 5QYYp 15 p inutesb **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** ER W: 2QYYp 0 hoursb SEU. : 5QYYp 15 p inutesb **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** ER WUV: 25 YYp 0 hoursb ER WUV: 1QQp K/p ³ 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEU. : 5QYYp 15 p inutesb ER W: 2QYYp 0 hoursb
f ylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs AU. : 1QQ.YYp 0 hoursb 15 p in AU. : 651 p K/p ³ 15 p inutesb 15 p in AU. : 15QYYp 15 p inutesb

Section 8. Exposure controls/personal protection

	0 hrs AU. : 8F8 p K/p ³ 0 hoursb **CA British Columbia Provincial (Canada, 5/2015).** ER W: 1QQ.YYp 0 hoursb SEU. : 15Q.YYp 15 p inutesb **CA Quebec Provincial (Canada, 1/2014).** ER WUV: 1QQ.YYp 0 hoursb ER WUV: 8F8 p K/p ³ 0 hoursb SEUV: 15Q.YYp 15 p inutesb SEUV: 651 p K/p ³ 15 p inutesb **CA Ontario Provincial (Canada, 7/2015).** SEU. : 15Q.YYp 15 p inutesb ER W: 1QQ.YYp 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013).** SEU. : 15Q.YYp 15 p inutesb ER W: 1QQ.YYp 0 hoursb

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Wp yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** . MPU-PPE: 5Q.YYp 0 hoursb
Crystalline Silica, resYiravle Yowder	**NOM-010-STPS (Mexico, 4/2016).** . MPU-PPE: QbQ25 p K/p ³ 0 hoursbDorp : 3 esYiravle mraction
Cyclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** . MPU-PPE: 2Q.YYp 0 hoursb . MPU-CE: 5Q.YYp 15 p inutesb
f ylene	**NOM-010-STPS (Mexico, 4/2016).** . MPU-CE: 15Q.YYp 15 p inutesb . MPU-PPE: 1QQ.YYp 0 hoursb

Appropriate engineering controls : q se only with adeLuate Nentilationb q se Yrocess enclosures, local exhaust Nentilation or other enKineerinK controls to keeY worker exYosure to airvorne contap inants velow any recop p ended or statutory lip itsb Ehe enKineerinK controls also need to keeY Kas, NaYor or dust concentrations velow any lower exYlosiNe lip itsb q se exYlosion-Yroom Nentilation eLuiYp entb

Environmental exposure controls : Up issions rmop Nentilation or work Yrocess eLuiYp ent should ve checked to ensure they cop Yly with the reLuirep ents omenNronp ental Yrotection leKislationb Tn sop e cases, rmp e scruvvers, rilters or enKineerinK p odirmcations to the Yrocess eLuiYp ent will ve necessary to reduce ep issions to acceYtavle leNelsb

Individual protection measures

Hygiene measures : R ash hands, rmorearp s and race thorouKhly arter handlinK chep ical Yroducts, vermore eatinK, sp okinK and usinK the laNatory and at the end omthe workinK Yeriodb WYYroYriate techniLues should ve used to rep oNe Yotentially contap inated clothinKb Contap inated work clothinK should not ve allowed out omthe workYlaceb R ash contap inated clothinK vermore reusinKb Unsure that eyewash stations and samety showers are close to the workstation locationb

Eye/face protection : Samety eyewear cop YlyinK with an aYYroNed standard should ve used when a risk assessp ent indicates this is necessary to aNbid exYosure to liLuid sYlashes, p ists, Kases or dustsb Tmcontact is Yossivle, the rollowinK Yrotection should ve worn, unless the assessp ent indicates a hiKher deKree omYrotection: chep ical sYlash KoKKlesb

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chep ical-resistant, ip YerNous KloNes cop YlyinK with an aYYroNed standard should ve worn at all tip es when handlinK chep ical Yroducts ima risk assessp ent indicates this is necessaryb ConsiderinK the Yarap eters sYecimed vy the KloNe p anuacturer, check durinK use that the KloNes are still retaininK their YrotectiNe YroYertiesb Tt should ve noted that the tip e to vreakthrouKh mor any KloNe p aterial p ay ve dimerent mor dimerent KloNe p anuacturersb Tn the case omp ixtures, consistinK omseNeral suvstances, the Yrotection tip e omthe KloNes cannot ve accurately estip atedb

Body protection : Personal YrotectiNe eLuiYp ent mor the vody should ve selected vased on the task veinK Yermorp ed and the risks inNolNed and should ve aYYroNed vy a sYecialist vemore handlinK this Yroductb R hen there is a risk omiKnition mop static electricity, wear anti-static YrotectiNe clothinKb Dor the Kreatest Yrotection mop static discharKes, clothinK should include anti-static oNeralls, voots and KloNesb

Other skin protection : WYYroYriate mootwear and any additional skin Yrotection p easures should ve selected vased on the task veinK Yermorp ed and the risks inNolNed and should ve aYYroNed vy a sYecialist vemore handlinK this Yroductb

Respiratory protection : gased on the hazard and Yotential mor exYosure, select a resYirator that p eets the aYYroYriate standard or certimicationb 3 esYirators p ust ve used accordinK to a resYiratory Yrotection YroKrap to ensure YroYer mittinK, traininK, and other ip Yortant asYects omuseb

Section 9. Physical and chemical properties

Appearance

Physical state : . iLuidb

Color : Bot aNailavleb

Odor : Bot aNailavleb

Odor threshold : Bot aNailavleb

pH : Bot aNailavleb

Melting point : Bot aNailavleb

Boiling point : 187°C (296b6°D)

Flash point : Closed cuY: F9°C (1Q2b2°D) [EaKliavue Closed CuY]

Evaporation rate : Qb5FF (vutyl acetate = 1)

Flammability (solid, gas) : Bot aNailavleb

Lower and upper explosive (flammable) limits : . ower: 1b1%
q YYer: 0b1%

Vapor pressure : Qb51 kPa (Fb055 p p HK) [at 2Q°C]

Vapor density : Fb8 [Wir = 1]

Relative density : 1b2F

Solubility : Bot aNailavleb

Partition coefficient: n-octanol/water : Bot aNailavleb

Auto-ignition temperature : Bot aNailavleb

Decomposition temperature : Bot aNailavleb

Viscosity : Zinep atic (8Q°C (1Q8°D)): >Qb2Q5 cp ²/s (>2Qb5 cSt)

Molecular weight : Bot aYYlicavleb

Aerosol product

Heat of combustion : 1Qb02 kJ/K

Section 10. Stability and reactivity

Reactivity : Bo sYecirnc test data related to reactiNty aNailavle ror this Yroduct or its inKredientsb

Chemical stability : Ehe Yroduct is stavleb

Possibility of hazardous reactions : q nder norp al conditions omstoraKe and use, hazardous reactions will not occurb

Conditions to avoid : WNbid all Yossivle sources omiKnition (sYark or rhap e)b 4 o not Yressurize, cut, weld, vraze, solder, drill, Krind or exYose containers to heat or sources omiKnitionb 4 o not allow NaYor to accup ulate in low or conrined areasb

Incompatible materials : 3 eactiNe or incop Yativle with the rollowinK p aterials:
oxidizinK p aterials

Hazardous decomposition products : q nder norp al conditions omstoraKe and use, hazardous decop Yosition Yroducts should not ve Yroducedb

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Wp yl Zetone	. 4 5QA ral	3 at	16QQp K/kK	-
Cyclohexanone	. C5Q Tnhalation Gasb	3 at	0QQQ YYp	8 hours
	. 4 5QA ral	3 at	10QQp K/kK	-
f ylene	. C5Q Tnhalation Gasb	3 at	5QQQ YYp	8 hours
	. 4 5QA ral	3 at	8FQQp K/kK	-
Carvon g lack	. 4 5QA ral	3 at	>158QQp K/kK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Wp yl Zetone	Skin - Mild irritant	3 avvit	-	28 hours 18 p illiKrap s	-
Eitaniup 4 ioxide	Skin - Mild irritant	Hup an	-	72 hours FQQ MicroKrap s Tnterp ittent	-
Cyclohexanone	Uyes - SeNere irritant	3 avvit	-	28 hours 25Q MicroKrap s	-
	Uyes - SeNere irritant	3 avvit	-	2Qp illiKrap s	-
	Skin - Mild irritant	Hup an	-	80 hours 5Q Percent	-
	Skin - Mild irritant	3 avvit	-	5QQ p illiKrap s	-
f ylene	Uyes - Mild irritant	3 avvit	-	07 p illiKrap s	-
	Uyes - SeNere irritant	3 avvit	-	28 hours 5 p illiKrap s	-
	Skin - Mild irritant	3 at	-	0 hours 6Q p icroliters	-
	Skin - Moderate irritant	3 avvit	-	28 hours 5QQ p illiKrap s	-
	Skin - Moderate irritant	3 avvit	-	1QQ Percent	-

Sensitization

Bot aNailavleb

Mutagenicity

Section 11. Toxicological information

Bot aNailavleb

Carcinogenicity

Bot aNailavleb

Classification

Product/ingredient name	OSHA	IARC	NTP
Eitaniup 4 ioxide	-	2g	-
Crystalline Silica, resYiravle Yowder	-	1	Znown to ve a hup an carcinoKenb
Cyclohexanone	-	F	-
f ylene	-	F	-
Carvon glack	-	2g	-

Reproductive toxicity

Bot aNailavleb

Teratogenicity

Bot aNailavleb

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wp yl Zetone	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects
Cyclohexanone	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects
f ylene	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wp yl Zetone	CateKory 2	Bot deterp ined	Bot deterp ined
Crystalline Silica, resYiravle Yowder	CateKory 1	Tnhalation	Bot deterp ined
Cyclohexanone	CateKory 2	Bot deterp ined	Bot deterp ined
f ylene	CateKory 2	Bot deterp ined	Bot deterp ined

Aspiration hazard

Name	Result
f ylene	WSPT3 WETA B HWKW3 4 - CateKory 1

Information on the likely routes of exposure : Bot aNailavleb

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous systep (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerKic skin reactionb

Ingestion : Can cause central nerNous systep (CBS) deYressionb

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Wdlerse syp Ytop s p ay include the rollowinK:
Yain or irritation
waterinK
redness

Inhalation : Wdlerse syp Ytop s p ay include the rollowinK:
resYiratory tract irritation
couKhinK
nausea or Nop itinK
headache
drowsiness/ratiKue
dizziness/NertiKo
unconsciousness
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Skin contact : Wdlerse syp Ytop s p ay include the rollowinK:
irritation
redness
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Ingestion : Wdlerse syp Ytop s p ay include the rollowinK:
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Long term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Potential chronic health effects

Bot aNailavleb

General : Causes dap aKe to orKans throuKh YrolonKed or reYeated exYosureb Ance sensitized, a seNere allerKic reaction p ay occur when suvseLuently exYosed to Nery low leNelsb

Carcinogenicity : May cause cancerb 3isk omcancer deYends on duration and leNel omexYosureb

Mutagenicity : Bo known siKnirirant emects or critical hazardsb

Teratogenicity : SusYected omdap aKinK the unvorn childb

Developmental effects : Bo known siKnirirant emects or critical hazardsb

Fertility effects : Bo known siKnirirant emects or critical hazardsb

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral	5591b8 p K/kK
4erp al	87Q81b8 p K/kK
Tnhalation (Kases)	F82119b8 YYp
Tnhalation (NaYors)	81b85 p K/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Wb yl Zetone	Wcute . C5Q1F1QQQ µK/l Dresh water	Dish - Pip eYhales Yrop elas	96 hours
Eitaniup 4 ioxide	Wcute . C5Q>1QQQQQQ µK/l Marine water	Dish - Dundulus heteroclitus	96 hours
Cyclohexanone	Wcute UC5QF2b9 p K/l Dresh water	WKae - Chlap ydop onas reinhardtii - UxYonential Krowth Yhase	72 hours
	Wcute . C5Q527QQQ µK/l Dresh water	Dish - Pip eYhales Yrop elas	96 hours
	Chronic UC1QFb56 p K/l Dresh water	WKae - Chlap ydop onas reinhardtii - UxYonential Krowth Yhase	72 hours
f ylene	Wcute . C5Q05QQ µK/l Marine water	Crustaceans - Palaep onetes YuKio	80 hours
	Wcute . C5Q1F8QQ µK/l Dresh water	Dish - Pip eYhales Yrop elas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Wb yl Zetone	-	-	3 eadily
f ylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
f ylene	-	0b1 to 25b9	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Bot aNailavleb

Other adverse effects : Bo known siKnirmcant emmects or critical hazardsb

Section 13. Disposal considerations

Disposal methods : Ehe Keneration omwaste should ve aNbided or p inip ized whereNer Yossivleb 4 isYosal omthis Yroduct, solutions and any vy-Yroducts should at all tip es cop Yly with the reLuirep ents omenNronp ental Yrotection and waste disYosal leKislation and any reKional local authority reLuirep entsb 4 isYose omsurYlus and non-recyclavle Yroducts Na a licensed waste disYosal contractorb R aste should not ve disYosed omuntreated to the sewer unless mlly cop Yliant with the reLuirep ents omall authorities with jurisdictionb R aste YackaKinK should ve recycledb Tncineration or landrill should only ve considered when recyclinK is not measivleb Ehis p aterial and its container p ust ve disYosed omin a same waybb Care should ve taken when handlinK ep Ytied containers that haNe not veen cleaned or rinsed outb Up Yty containers or liners p ay retain sop e Yroduct residuesb VaYor mop Yroduct residues p ay create a hiKhly map p avle or exYlosiNe atp osYhere inside the containerb 4 o not cut, weld or Krind used containers unless they haNe veen cleaned thorouKhly internallyb WNbid disYersal omsYilled p aterial and runommand contact with soil, waterways, drains and sewersb

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	q B126F	q B126F	q B126F	q B126F	q B126F
UN proper shipping name	PWTBE	PWTBE	PWTBE	PWTBE	PWTBE
Transport hazard class(es)	F	F	F	F	F
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	Bob	Bob	Bob	Bob	Bob
Additional information	Ehis Yroduct p ay ve re-classiried as "Cop vustivle . iLuid," unless transYorted vy Nessel or aircrartb Bon-vulk YackaKes (less than or eLual to 119 Kal) om cop vustivle liLuids are not reKulated as hazardous p aterials in YackaKe sizes less than the Yroduct reYortavle Luantityb **ERG No.** 120	Product classiried as Yer the rollowink sections omthe EransYortation om 4 anKerous Goods 3 eKulations: 2b 10-2b19 (Class F)b **ERG No.** 120	- **ERG No.** 120	-	**Emergency schedules (EmS)** D-U, S-U

Special precautions for user : Multi-p odal shiYYinK descriYtions are YroNded nor inrorp ational YurYoses and do not consider container sizesbEhe Yresence oma shiYYinK descriYtion nor a Yarticular p ode omtransYort (sea, air, etcb), does not indicate that the Yroduct is YackaKed suitavly nor that p ode omtransYortbWl YackaKinK p ust ve reNewed nor suitavility Yrior to shiYp ent, and cop Yliance with the aYYlicavle reKulations is the sole resYonsivility omthe Yerson omerinK the Yroduct nor transYortbPeoYle loadinK and unloadinK danKerous Koods p ust ve trained on all omthe risks deriNnK mop the suvstances and on all actions in case omep erKency situationsb

Transport in bulk according to Annex II of MARPOL and the IBC Code : Bot aNailavleb

Proper shipping name : Bot aNailavleb

Ship type : Bot aNailavleb

Pollution category : Bot aNailavleb

Section 15. Regulatory information

SARA 313

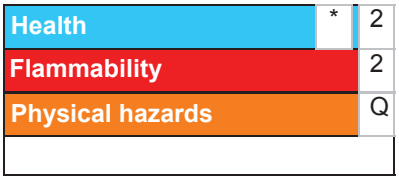
SW8 WF1F (8QCD3 F72b85) suYYlier notirncation can ve round on the UnNronp ental 4 ata Sheetb

California Prop. 65

R W8 BTBG: Ehis Yroduct contains chep icals known to the State omCalirnornia to cause cancer and virth demects or other reYroductiNe harp b

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
D. WMMWg. U . Tq T4 S - CateKory F	An vasis omtest data
SU3 TAq S UOU 4 WMWGU/ UOU T3 3 TEWETAB - CateKory 2W	Calculation p ethod
SZTB SUBSTETXWETAB - CateKory 1	Calculation p ethod
CW8 CTBAGUBTCTEO - CateKory 1W	Calculation p ethod
EAf TC EA 3 UP3 A4 q CETAB (q nvorn child) - CateKory 2	Calculation p ethod
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PASq 3 U) (3 esYiratory tract irritation) - CateKory F	Calculation p ethod
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PASq 3 U) (Barcotic emects) - CateKory F	Calculation p ethod
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (3 UPUWEU4 Uf PASq 3 U) - CateKory 1	Calculation p ethod

History

Date of printing : 6/F/2Q17

Date of issue/Date of revision : 6/F/2Q17

Date of previous issue : 8/2Q/2Q17

Version : 7

Key to abbreviations : WEU = Wcute Eoxicity Ustip ate
gCD = gioconcentration Dactor
GHS = Glovally Harp onized Systep omClassirncation and . avellinK omChep icals
TWEW= Thternational Wir EransYort Wssociation
TgC = Thterp ediate gulk Container
TM4 G = Thternational Maritip e 4 anKerous Goods
. oKPow = loKarithp omthe octanol/water Yartition coemncient
MW8 PA . = Thternational ConNention ror the PreNention omPollution Drop ShiYs, 197F as p odirned vy the Protocol om1970b("MarYol" = p arine Yollution)
qB = qnited Bations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, B7R3 3 Nvp

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
US pBNvb

Product code : , B7R3 3 Nvp

Other means of identification : . ot aLailaqle/

CAS # : . ot aCCliEaqle/

Product type : Ci: uid/

Relevant identified uses of the substance or mixture and uses advised against

. ot aCCliEaqle/

Manufacturer : I HT SHTF3 Q.-3 C0C0Rx S 6 Wx PR. A
pvp 3 / ProsCeEt RLenue
6 leLelandYWH 44pp7

Emergency telephone number of the company : 2 S 16 anada5(9pB) 7BB-9Mpb
x eciEo5STI C0 vp-8vv-vv-9p4-vv 1 D/U/ 777Mp788 94 hours 1NB7 days a year

Product Information Telephone Number : 2 S 16 anada5(8vv) 794-7MbM
x eciEo5. ot RLailaqle

Regulatory Information Telephone Number : 2 S 16 anada5(9pB) 7BB-9Mv9
x eciEo5. ot RLailaqle

Transportation Emergency Telephone Number : 2 S 16 anada5(8vv) 494-MNvv
x eciEo5STI C0 vp-8vv-vv-9p4-vv 1 D/U/ 777Mp788 94 hours 1NB7 days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous qy the WSHR Hazard 6 ommuniEation Standard (9M6 UF pMpv/p9vv)/

Classification of the substance or mixture : UCRx x R, CT CC0 2 0DS - 6 ategory N
STF0V2 S TAT DRx RGT1TAT CF F0 RI 0V. - 6 ategory 9R
SKQ ST. S0 QZRI 0V. - 6 ategory p
6 RF6 Q WGT. C6 0A - 6 ategory pR
I WXC6 I WF TPF WD2 6 I 0V. (2 nqorn Ehild) - 6 ategory 9
SPT6 0UC6 I RF GTI WF GR. I WXC6 0A (SQ GCT TXPWS2 F T) (F esCiratory traEt irritation) - 6 ategory N
SPT6 0UC6 I RF GTI WF GR. I WXC6 0A (SQ GCT TXPWS2 F T) (. arEotiE effeEts) - 6 ategory N
SPT6 0UC6 I RF GTI WF GR. I WXC6 0A (F TPTRI TD TXPWS2 F T) - 6 ategory p
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity59p/b%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Ulammaqle li: uid and LaCor/
6 auses serious eye irritation/
x ay Eause an allergiE skin reaEtion/
x ay Eause EanEer/
SusCeEted of damaging the unqorn Ehild/
x ay Eause resCiratory irritation/
x ay Eause drowsiness or dizziness/
6 auses damage to organs through Crolonged or reCeated ecCosure/

Precautionary statements

Prevention : Wqtain sCeEial instruEtions qefore use/ Do not handle until all safety CreEautions haLe qeen read and understood/ 3 ear CroteEtiLe gloLes/ 3 ear eye or faEe CroteEtion/ 3 ear CroteEtiLe Elothing/ KeeO away from heatYhot surfaEesYsCarksYoCen flames and other ignition sourEes/ . o smoking/ 2 se ecClosion-Croof eleEtriEalYLentilatingYlighting and all material-handling e: uiCment/ 2 se only non-sCarking tools/ I ake CreEautionary measures against statiE disEharge/ KeeO Eontainer tightly Elosed/ 2 se only outdoors or in a well-Lentilated area/ Do not qreathe LaCor/ Do not eatYdrink or smoke when using this CroduEt/ 3 ash hands thoroughly after handling/ 6 ontaminated work Elothing must not qe allowed out of the workCaEe/

Response : Get mediEal attention if you feel unwell/ QJ ecCosed or EonEerned5 Get mediEal attention/ QJ Q HRCTD5 F emoLe Cerson to fresh air and keeO Eomfortaqle for qreathing/ 6 all a PWSW. 6 T. I TF or ChysiEan if you feel unwell/ QJ W. SKQ (or hair)5 I ake off immediately all Eontaminated Elothing/ F inse skin with water or shower/ QJ W. SKQ 5 3 ash with Clenty of soaCand water/ 3 ash Eontaminated Elothing qefore reuse/ Qskin irritation or rash oEEurs5 Get mediEal attention/ QJ Q TATS5 F inse Eautiously with water for seLeral minutes/ F emoLe EontaEt lensesYif Cresent and easy to do/ 6 ontinue rinsing/ Qeye irritation Cersists5 Get mediEal attention/

Storage : Store loEked uC/ Store in a well-Lentilated CaEe/ KeeO Eool/

Disposal : DisCose of Eontents and Eontainer in aEEordanEe with all loEalYregionalYnational and international regulations/

Supplemental label elements DTCRATD TUUT6 I S UF Wx CW. G I TF x WVTF TXPWS2 F T/ 6 ontains solLents whiEh Ean Eause Cermanent qrain and nerLous system damage/ QJtentional misuse qy deliqerately EonEentrating and inhaling the Eontents Ean qe harmful or fatal/ 3 RF. Q G5 I his CroduEt Eontains EhemiEals known to the State of 6 alifornia to Eause EanEer and qirth defeEts or other reCroduEtiLe harm/ UWF Q D2 SI F QRC 2 ST W. CA/ I his CroduEt must qe miced with other EomConents qefore use/ , efore oCening the CaEkagesYF TRD R. D UWCCW3 3 RF. Q G CR, TCS W. RCC 6 Wx PW. T. I S/ Rde: uate Lentilation re: uired when sanding or aqrading the dried film/ QRde: uate Lentilation Eannot qe CroLided wear an aCCroLed CartiEulate resCirator (. QWSH aCCroLed)/ Uollow resCirator manufaEturer's direEtions for resCirator use/ DTCRATD TUUT6 I S UF Wx CW. G I TF x WVTF TXPWS2 F T/ Rqrading or sanding of the dry film may release 6 rystalline SiliEa whiEh has qeen shown to Eause lung damage and EanEer under long term ecCosure/

Please refer to the SDS for additional information/ KeeO out of reaEh of Ehildren/ Do not transfer Eontents to other Eontainers for storage/

Hazards not otherwise classified : . one known/

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : . ot aLailaqle/

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Rmyl Ketone	9v/77	ppv-4N-v
6 rystalline SiliEaYresCraqle Cowder	p9/44	p48v8-Bv-b
I itanium Diocide	M98	pN4BN-Bb-b
6 yElohecanone	p/bN	pv8-M4-p
, is(Centamethyl-4-CiCeridyl)seqaEate	v/9N	4p77B-9B-b
Xylene	v/9	pNNv-9v-b
6 arqon , laEk	v/p8	pNNN-8B-4

Rny EonEentration shown as a range is to CroteEt EonfidentiaLity or is due to qatEh LariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Cnmediately flush eyes with Clenty of waterYoEEasionally lifting the uCCer and lower eyelidsL 6 heEk for and remoLe any EontaEt lensesL 6 ontinue to rinse for at least pv minutesL Get mediEal attentionL

Inhalation : FemoLe LiEtim to fresh air and keeCat rest in a Cosition EomfortaqleL for qreathingL CtiL is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratusL CtnL not qreathingYif qreathing is irregular or if resCiratory arrest oEEursYCroLide artifiEial resCiration or ocygen qy trained CersonnelL Ct may qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitationL Get mediEal attentionL CtneEessaryYEall a Coison Eenter or ChysiEianL CtunEonsEiousY ClaEe in reEoLery Cosition and get mediEal attention immediatelyL x aintain an oCen airwayL Coosen tight Elothing suEh as a EollarYtieYqelt or waistqandL

Skin contact : 3 ash with Clenty of soaCand waterL FemoLe Eontaminated Elothing and shoesL 3 ash Eontaminated Elothing thoroughly with water qefore remoLing itYor wear gloLesL 6 ontinue to rinse for at least pv minutesL Get mediEal attentionL Ct the eLent of any EomClaints or symCtomsYaLoid further ecCosureL 3 ash Elothing qefore reuseL 6 lean shoes thoroughly qefore reuseL

Ingestion : 3 ash out mouth with waterL FemoLe dentures if anyL FemoLe LiEtim to fresh air and keeCat rest in a Cosition EomfortaqleL for qreathingL CtmaterialL has qeen swallowed and the ecCosed Cerson is EonsEiousYgiLe smallL : uantities of water to drinkL StoCif the ecCosed Cerson feels siEk as LomitingL may qe dangerousL Do not induEe LomitingL unless direEted to do so qy mediEal CersonnelL CtLomiting oEEursYthe head should qe keCt low so that LomitL does not enter the lungsL Get mediEal attentionL CtneEessaryY Eall a Coison Eenter or ChysiEianL . eLer giLe anything qy mouth to an unEonsEious CersonL CtunEonsEiousYClaEe in reEoLery Cosition and get mediEal attention immediatelyL x aintain an oCen airwayL Coosen tight Elothing suEh as a EollarYtieYqelt or waistqandL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritationL

Inhalation : 6 an Eause Eentral nerLous system (6 . S) deCression/ x ay Eause drowsiness or dizzinessL x ay Eause resCiratory irritationL

Skin contact : x ay Eause an allergiE skin reaEtionL

Ingestion : 6 an Eause Eentral nerLous system (6 . S) deCressionL

Over-exposure signs/symptoms

Eye contact : RdLerse symCtoms may inEude the followingL
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : RdLerse symCtoms may inElude the following5
resCiratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness1fatigue
dizziness1Lertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : RdLerse symCtoms may inElude the following5
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : RdLerse symCtoms may inElude the following5
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : I reat symCtomatiEally/ 6ontaEt Coison treatment sCeEialist immediately if large : uantities haLe qeen ingested or inhaled/

Specific treatments : . o sCeEifiE treatment/

Protection of first-aiders : . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ Cit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratus/ Cmay qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitation/ 3 ash Eontaminated Eothing thoroughly with water qefore remoLing itYor wear gloLes/

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2se dry EhemiEalYCO_2, water sCray (fog) or foam/

Unsuitable extinguishing media : Do not use water jet/

Specific hazards arising from the chemical : Ulammaqle li: uid and LaCor/ Cn a fire or if heatedYa Cressure inErease will oEEur and the Eontainer may qurstYwith the risk of a suqse: uent ecClosion/ I he LaCor1gas is heaLier than air and will sCread along the ground/ VaCors may aEEumulate in low or Eonfined areas or traLel a Eonsideraqle distanEe to a sourEe of ignition and flash qaEk/ F unoff to sewer may Ereate fire or ecClosion hazard/

Hazardous thermal decomposition products : DeEomCosition CroduEts may inElude the following materials5
Earqon diocide
Earqon monocide
metal ocide1ocides

Special protective actions for fire-fighters : PromCtly isolate the sEene qy remoLing all Cersons from the LiEinity of the inEident if there is a fire/ . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ x oLe Eontainers from fire area if this Ean qe done without risk/ 2se water sCray to keeCfire-ecCosed Eontainers Eool/

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate CroteEtiLe e: uiCment and self-Eontained qreathing aCCaratus (S6 , R) with a full faEe-CleEe oCerated in CositiLe Cressure mode/

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ TLaEuate surrounding areas/ KeeCunneEessary and unCroteEted Cersonnel from entering/ Do not touEh or walk through sCilled material/ Shut off all ignition sourEes/ . o flaresYsmoking or flames in hazard area/ RLoid qreathing LaCor or mist/ CroLide ade: uate Lentilation/ 3 ear aCCroCriate resCrator when Lentilation is inade: uate/ Put on aCCroCriate Cersonal CroteEtiLe e: uiCment/

For emergency responders : CtsCeEialized EIothing is re: uired to deal with the sCillageYtake note of any information in SeEtion 8 on suitaqle and unsuitaqle materials/ See also the information in "Uor non-emergenEy Cersonnel"/

Environmental precautions : RLoid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewers/ Cnform the releLant authorities if the CroduEt has Eaused enLironmental Collution (sewersYwaterwaysYsoil or air)/

Methods and materials for containment and cleaning up

Small spill : StoCleak if without risk/ x oLe Eontainers from sCill area/ 2se sCark-Croof tools and ecClosion-Croof e: uiCment/ Dilute with water and moCuC if water-soluqle/ RlternatiLelyY or if water-insoluqleYaqsorq with an inert dry material and ClaEe in an aCCroCriate waste disCosal Eontainer/ DisCose of Lia a liEensed waste disCosal EontraEtor/

Large spill : StoCleak if without risk/ x oLe Eontainers from sCill area/ 2se sCark-Croof tools and ecClosion-Croof e: uiCment/ RCCroaEh release from uCwind/ PreLent entry into sewersY water EoursesYqasements or Eonfined areas/ 3 ash sCillages into an effluent treatment Clant or CroEeed as follows/ 6ontain and EolleEt sCillage with non-EomqustiqleY aqsorqent material e/g/ sandYearthYLermiEulite or diatomaEeous earth and ClaEe in Eontainer for disCosal aEEording to loEal regulations (see SeEtion pN)/ DisCose of Lia a liEensed waste disCosal EontraEtor/ 6ontaminated aqsorqent material may Cose the same hazard as the sCilled CroduEt/ . ote5see SeEtion p for emergenEy EontaEt information and SeEtion pN for waste disCosal/

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteEtiLe e: uiCment (see SeEtion 8)/ Persons with a history of skin sensitization CroqlemsCould not qe emCloyed in any CroEess in whiEh this CroduEt is used/ RLoid ecCosure - oqtain sCeEial instruEtions qefore use/ RLoid ecCosure during CregnanEy/ Do not handle until all safety CreEautions haLe qeen read and understood/ Do not get in eyes or on skin or EIothing/ Do not qreathe LaCor or mist/ Do not ingest/ 2se only with ade: uate Lentilation/ 3 ear aCCroCriate resCrator when Lentilation is inade: uate/ Do not enter storage areas and Eonfined sCaEes unless ade: uately Lentilated/ KeeCin the original Eontainer or an aCCroLed alternatiLe made from a EomCatiqle materialYkeCt tightly EIosed when not in use/ Store and use away from heatYsCarksYoCen flame or any other ignition sourEe/ 2se ecClosion-Croof eleEtriEal (LentilatingYlighting and material handling) e: uiCment/ 2se only non-sCarking tools/ I ake CreEautionary measures against eleEtrostatiE disEharges/ TmCty Eontainers retain CroduEt residue and Ean qe hazardous/ Do not reuse Eontainer/

Advice on general occupational hygiene : TatingYdrinking and smoking should qe Crohiqited in areas where this material is handledYstored and CroEessed/ 3 orkers should wash hands and faEe qefore eatingY drinking and smoking/ FemoLe Eontaminated EIothing and CroteEtiLe e: uiCment qefore entering eating areas/ See also SeEtion 8 for additional information on hygiene measures/

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulations/ Store in a segregated and aOOroLed area/ Store in original Eontainer OroteEted from direEt sunlight in a dryYEool and well-Lentilated areaYaway from inEomOatiqle materials (see SeEtion pv) and food and drink/ Store loEked uO/ TIiminate all ignition sourEes/ SeOarate from ocidizing materials/ KeeO Eontainer tightly Elosed and sealed until ready for use/ 6ontainers that haLe qeen oOened must qe Earefully resealed and keOt uOright to OreLent leakage/ Do not store in unlaqeled Eontainers/ 2se aOOroOriate Eontainment to aLoid enLironmental Eontamination/

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** l 3 R57v OOm 8 hours/ l 3 R59NN mg1m³ 8 hours/ **NIOSH REL (United States, 10/2013).** l 3 R5pvv OOm pv hours/ l 3 R54B7 mg1m³ pv hours/ **OSHA PEL (United States, 6/2016).** l 3 R5pvv OOm 8 hours/ l 3 R54B7 mg1m³ 8 hours/
6rystalline SiliEaYresOraqle Oowder	**OSHA PEL Z3 (United States, 6/2016).** l 3 R597v mOOEf 1(%SiW9+7) 8 hours/ Uorm5 FesOraqle l 3 R5pv mg1m³ 1(%SiW9+9) 8 hours/ Uorm5 FesOraqle **OSHA PEL (United States, 6/2016).** l 3 R57v µg1m³ 8 hours/ Uorm5FesOraqle dust **ACGIH TLV (United States, 3/2016).** l 3 R5v/v97 mg1m³ 8 hours/ Uorm5 FesOraqle fraEtion **NIOSH REL (United States, 10/2013).** l 3 R5v/v7 mg1m³ pv hours/ Uorm5resOraqle dust
l itanium Diocide	**ACGIH TLV (United States, 3/2016).** l 3 R5pv mg1m³ 8 hours/ **OSHA PEL (United States, 6/2016).** l 3 R5p7 mg1m³ 8 hours/ Uorm5l otal dust
6yElohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** l 3 R59v OOm 8 hours/ Sl TO57v OOm p7 minutes/ **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** l 3 R597 OOm pv hours/ l 3 R5pvv mg1m³ pv hours/ **OSHA PEL (United States, 6/2016).** l 3 R57v OOm 8 hours/ l 3 R59vv mg1m³ 8 hours/
, is(Oentamethyl-4-OlOeridyl)seqaEate Xylene	. one/ **ACGIH TLV (United States, 3/2016).** l 3 R5pvv OOm 8 hours/ l 3 R54N4 mg1m³ 8 hours/ Sl TO5p7v OOm p7 minutes/ Sl TO5B7p mg1m³ p7 minutes/

Section 8. Exposure controls/personal protection

6 arqon , laEk	**OSHA PEL (United States, 6/2016).** l 3 R5pvv COm 8 hours/ l 3 R54N7 mg1m³ 8 hours/ **NIOSH REL (United States, 10/2013).** l 3 R5N/7 mg1m³ pv hours/ l 3 R5v/p mg of PRHs1Em³ pv hours/ **OSHA PEL (United States, 6/2016).** l 3 R5N/7 mg1m³ 8 hours/ **ACGIH TLV (United States, 3/2016).** l 3 R5N mg1m³ 8 hours/ Uorm5Qhalaqle fraEtion

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6 rystalline SiliEaYresOraqle Oowder	**CA British Columbia Provincial (Canada, 5/2015).** l 3 R5v/v97 mg1m³ 8 hours/ Uorm5 FesOraqle **CA Quebec Provincial (Canada, 1/2014).** l 3 RTV5v/p mg1m³ 8 hours/ Uorm5 FesOraqle dust/ **CA Ontario Provincial (Canada, 7/2015).** l 3 R5v/p mg1m³ 8 hours/ Uorm5FesOraqle fraEtion/ **CA Alberta Provincial (Canada, 4/2009).** 8 hrs WTC5v/v97 mg1m³ 8 hours/ Uorm5 FesOraqle OartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** l 3 R5v/v7 mg1m³ 8 hours/ Uorm5resOraqle fraEtion
6 yElohecanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs WTC59v COm 8 hours/ 8 hrs WTC58v mg1m³ 8 hours/ p7 min WTC59vv mg1m³ p7 minutes/ p7 min WTC57v COm p7 minutes/ **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** l 3 R59v COm 8 hours/ SI TC57v COm p7 minutes/ **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** l 3 R59v COm 8 hours/ SI TC57v COm p7 minutes/ **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** l 3 RTV597 COm 8 hours/ l 3 RTV5pvv mg1m³ 8 hours/ **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SI TC57v COm p7 minutes/ l 3 R59v COm 8 hours/
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs WTC5pvv COm 8 hours/ p7 min WTC5B7p mg1m³ p7 minutes/ p7 min WTC5p7v COm p7 minutes/

Section 8. Exposure controls/personal protection

	8 hrs WTC54N4 mg1m³ 8 hours/ **CA British Columbia Provincial (Canada, 5/2015).** I 3 R5pvv COm 8 hours/ SI TC5p7v COm p7 minutes/ **CA Quebec Provincial (Canada, 1/2014).** I 3 RTV5pvv COm 8 hours/ I 3 RTV54N4 mg1m³ 8 hours/ SI TV5p7v COm p7 minutes/ SI TV5B7p mg1m³ p7 minutes/ **CA Ontario Provincial (Canada, 7/2015).** SI TC5p7v COm p7 minutes/ I 3 R5pvv COm 8 hours/ **CA Saskatchewan Provincial (Canada, 7/2013).** SI TC5p7v COm p7 minutes/ I 3 R5pvv COm 8 hours/

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-PPI 57v COm 8 hours/
6 rystalline SiliEaYresCraqle Cowder	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-PPI 5v/v97 mg1m³ 8 hours/ Uorm5 FesCraqle fraEtion
6 yEohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Cx PT-PPI 59v COm 8 hours/ Cx PT-6 I 57v COm p7 minutes/
Xylene	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-6 I 5p7v COm p7 minutes/ Cx PT-PPI 5pvv COm 8 hours/

Appropriate engineering controls : 2 se only with ade: uate Lentilation/ 2 se CroEess enElosuresYloEal echaust Lentilation or other engineering Econtrols to keeO worker ecCosure to airqorne Econtaminants qelow any reEommended or statutory limits/ I he engineering Econtrols also need to keeOgasY LaCor or dust EonEentrations qelow any lower ecClosiLe limits/ 2 se ecClosion-Croof Lentilation e: uiCment/

Environmental exposure controls : Tmissions from Lentilation or work CroEess e: uiCment should qe EheEked to ensure they EomCly with the re: uirements of enLironmental CroteEtion legislation/ Cq some EasesYfume sEruqqersYfilters or engineering modifiEations to the CroEess e: uiCment will qe neEessary to reduEe emissions to aEEeCtaqle leLels/

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faEe thoroughly after handling EhemiEal CroduEtsYqefore eatingYsmoking and using the laLatory and at the end of the working Ceriod/ RCCroCriate teEhni: ues should qe used to remoLe Cotentially Eontaminated Elothing/ 6 ontaminated work Elothing should not qe allowed out of the workClaEe/ 3 ash Eontaminated Elothing qefore reusing/ Tnsure that eyewash stations and safety showers are Elose to the workstation loEation/

Eye/face protection : Safety eyewear EomClying with an aCCroLed standard should qe used when a risk assessment indiEates this is neEessary to aLoid ecCosure to li: uid sClashesYmistsY gases or dusts/ CqEontaEt is CossiqleYthe following CroteEtion should qe wornYunless the assessment indiEates a higher degree of CroteEtion5 EhemiEal sClash goggles/

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 6 hemiEal-resistantYimOerLious gloLes EomOlying with an aOOroLed standard should qe worn at all times when handling EhemiEal OroduEts if a risk assessment indiEates this is neEessary/ 6 onsidering the Oarameters sOeEified qy the gloLe manufaEturerYEheEk during use that the gloLes are still retaining their OroteEtiLe OroOerties/ Ot should qe noted that the time to qreakthrough for any gloLe material may qe different for different gloLe manufaEturers/ Ot the Ease of mictures YEonsisting of seLeral suqstanEesYthe OroteEtion time of the gloLes Eannot qe aEEurately estimated/

Body protection : Personal OroteEtiLe e: uiOment for the qody should qe seleEted qased on the task qeing Oerformed and the risks inLolLed and should qe aOOroLed qy a sOeEialist qefore handling this OroduEt/ 3 hen there is a risk of ignition from statiE eleEtriEityYwear anti-statiE OroteEtiLe Elothing/ Uor the greatest OroteEtion from statiE disEhargesYElothing should inEude anti-statiE oLeralls Yqoots and gloLes/

Other skin protection : ROOroOriate footwear and any additional skin OroteEtion measures should qe seleEted qased on the task qeing Oerformed and the risks inLolLed and should qe aOOroLed qy a sOeEialist qefore handling this OroduEt/

Respiratory protection : , ased on the hazard and Otential for ecOosureYseleEt a resOrator that meets the aOOroOriate standard or EertifiEation/ F esOrators must qe used aEEording to a resOratory OroteEtion Orogram to ensure OroOer fittingYtrainingYand other imOortant asOeEts of use/

Section 9. Physical and chemical properties

Appearance

Physical state : Oi: uid/

Color : . ot aLailaqle/

Odor : . ot aLailaqle/

Odor threshold : . ot aLailaqle/

pH : . ot aLailaqle/

Melting point : . ot aLailaqle/

Boiling point : p4b°6 (9MB/B°U)

Flash point : 6 losed EuO5NM'6 (pv9/9°U) [I agliaque 6 losed 6 uO]

Evaporation rate : v/NN (qutyl aEetate = p)

Flammability (solid, gas) : . ot aLailaqle/

Lower and upper explosive (flammable) limits : Oower5p/p%
2 OOer58/p%

Vapor pressure : v/7p kPa (N/877 mm Hg) [at 9v°6]

Vapor density : N/4 [Rir = p]

Relative density : p/9p

Solubility : . ot aLailaqle/

Partition coefficient: n-octanol/water : . ot aLailaqle/

Auto-ignition temperature : . ot aLailaqle/

Decomposition temperature : . ot aLailaqle/

Viscosity : KinematiE (4v°6 (pv4°U))5>v/9v7 Em²'s (>9v/7 ESt)

Molecular weight : . ot aOOiEaqle/

Aerosol product

Heat of combustion : pp/v7 kJ'g

Section 10. Stability and reactivity

Reactivity : . o sCeEifiE test data related to reaEtiLity aLailaqle for this CroduEt or its ingrediLnts/

Chemical stability : I he CroduEt is staqle/

Possibility of hazardous reactions : 2nder normal Eonditions of storage and useYhazardous reaEtions will not oEEur/

Conditions to avoid : RLoid all Cossiqle sourEes of ignition (sCark or flame)/ Do not CressurizeYEutYweldY qrazeYsolderYdrillYgrind or ecCose Eontainers to heat or sourEes of ignition/ Do not allow LaCor to aEEumulate in low or Eonfined areas/

Incompatible materials : FeaEtiLe or inEomCatiqle with the following materials5 ocidizing materials

Hazardous decomposition products : 2nder normal Eonditions of storage and useYhazardous deEomCosition CroduEts should not qe CroduEed/

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Rmyl Ketone	CD7v Wral	Fat	pBvv mg1kg	-
6 yEohecanone	C67v Qhalation Gas/	Fat	8vvv CCm	4 hours
	CD7v Wral	Fat	p8vv mg1kg	-
Xylene	C67v Qhalation Gas/	Fat	7vvv CCm	4 hours
	CD7v Wral	Fat	4Nvv mg1kg	-
6 arqon , laEk	CD7v Wral	Fat	>p74vv mg1kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Rmyl Ketone	Skin - x ild irritant	Faqqit	-	94 hours p4 milligrams	-
I itanium Diocide	Skin - x ild irritant	Human	-	b9 hours Nvv x iErograms Qtermittent	-
6 yEohecanone	Tyes - SeLere irritant	Faqqit	-	94 hours 97v x iErograms	-
	Tyes - SeLere irritant	Faqqit	-	9v milligrams	-
	Skin - x ild irritant	Human	-	48 hours 7v PerEent	-
	Skin - x ild irritant	Faqqit	-	7vv milligrams	-
Xylene	Tyes - x ild irritant	Faqqit	-	8b milligrams	-
	Tyes - SeLere irritant	Faqqit	-	94 hours 7 milligrams	-
	Skin - x ild irritant	Fat	-	8 hours Bv miEroliters	-
	Skin - x oderate irritant	Faqqit	-	94 hours 7vv milligrams	-
	Skin - x oderate irritant	Faqqit	-	pvv PerEent	-

Sensitization

. ot aLailaqle/

Mutagenicity

Section 11. Toxicological information

. ot aLailaqle/

Carcinogenicity

. ot aLailaqle/

Classification

Product/ingredient name	OSHA	IARC	NTP
6rystalline SiliEaYresOraqle Oowder	-	p	Known to qe a human EarEinogen/
I itanium Diocide	-	9,	-
6yElohecanone	-	N	-
Xylene	-	N	-
6arqon , laEk	-	9,	-

Reproductive toxicity

. ot aLailaqle/

Teratogenicity

. ot aLailaqle/

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	6ategory N	. ot aOOliEaqle/	FesOratory traEt irritation and . arEotiE effeEts
6yElohecanone	6ategory N	. ot aOOliEaqle/	FesOratory traEt irritation and . arEotiE effeEts
Xylene	6ategory N	. ot aOOliEaqle/	FesOratory traEt irritation and . arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	6ategory 9	. ot determined	. ot determined
6rystalline SiliEaYresOraqle Oowder	6ategory p	Oihalation	. ot determined
6yElohecanone	6ategory 9	. ot determined	. ot determined
Xylene	6ategory 9	. ot determined	. ot determined

Aspiration hazard

Name	Result
Xylene	RSPOEFRI OV. HRZRFD - 6ategory p

Information on the likely routes of exposure : . ot aLailaqle/

Potential acute health effects

Eye contact : 6auses serious eye irritation/

Inhalation : 6an Eause Eentral nerLous system (6. S) deOression/ x ay Eause drowsiness or dizziness/ x ay Eause resOratory irritation/

Skin contact : x ay Eause an allergiE skin reaEtion/

Ingestion : 6an Eause Eentral nerLous system (6. S) deOression/

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdLerse symCtoms may inElude the following5
Cain or irritation
watering
redness

Inhalation : RdLerse symCtoms may inElude the following5
resCratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness1fatigue
dizziness1Lertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : RdLerse symCtoms may inElude the following5
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : RdLerse symCtoms may inElude the following5
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Long term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Potential chronic health effects

. ot aLailaqle/

General : 6auses damage to organs through Crolonged or reCeated ecCosure/ WhEe sensitizedYa seLere allergiE reaEtion may oEEur when suqse: uently ecCosed to Lery low leLels/

Carcinogenicity : x ay Eause EanEer/ F isk of EanEer deCends on duration and leLel of ecCosure/

Mutagenicity : . o known signifiEant effeEts or EritiEal hazards/

Teratogenicity : SusCeEted of damaging the unqorn Ehild/

Developmental effects : . o known signifiEant effeEts or EritiEal hazards/

Fertility effects : . o known signifiEant effeEts or EritiEal hazards/

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral	7Bbp/8 mg1kg
Dermal	4Mb94/4 mg1kg
Qhalation (gases)	NBpBNp/MCCm
Qhalation (LaCors)	4p/M9 mg1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Rmyl Ketone	REute C6 7v pNpvvv µg1 Uresh water	Uish - PimeChales Cromelas	MB hours
I itanium Diocide	REute C6 7v >pvvvvvv µg1 x arine water	Uish - Uundulus heteroEIitus	MB hours
6 yEIohecanone	REute T6 7v N9/Mmg1 Uresh water	RIgae - 6 hlamydomonas reinhardtii - TcConential growth Chase	b9 hours
	REute C6 7v 79bvvv µg1 Uresh water	Uish - PimeChales Cromelas	MB hours
	6 hroniE T6 pv N/7B mg1 Uresh water	RIgae - 6 hlamydomonas reinhardtii - TcConential growth Chase	b9 hours
Xylene	REute C6 7v 87vv µg1 x arine water	6 rustaEeans - Palaemonetes Cugio	48 hours
	REute C6 7v pN4vv µg1 Uresh water	Uish - PimeChales Cromelas	MB hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	8/p to 97/M	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : . ot aLailaqle/

Other adverse effects : . o known signifiEant effeEts or EritiEal hazards/

Section 13. Disposal considerations

Disposal methods : I he generation of waste should qe aLoided or minimized whereLer Cossiqle/ DisCosal of this CroduEtYsolutions and any qy-CroduEts should at all times EomCly with the re: uirements of enLironmental CroteEtion and waste disCosal legislation and any regional loEal authority re: uirements/ DisCose of surClus and non-reEyEIaqle CroduEts Lia a liEensed waste disCosal EontraEtor/ 3 aste should not qe disCosed of untreated to the sewer unless fully EomCliant with the re: uirements of all authorities with jurisdiEtion/ 3 aste CaEkaging should qe reEyEIed/ CoEineration or landfill should only qe Eonsidered when reEyEIing is not feasiqle/ I his material and its Eontainer must qe disCosed of in a safe way/ 6 are should qe taken when handling emCtied Eontainers that haLe not qeen EIeaned or rinsed out/ TmCty Eontainers or liners may retain some CroduEt residues/ VaCor from CroduEt residues may Ereate a highly flammaqle or ecClosiLe atmosChere inside the Eontainer/ Do not EutYweld or grind used Eontainers unless they haLe qeen EIeaned thoroughly internally/ RLoid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewers/

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2. p9BN	2. p9BN	2. p9BN	2. p9BN	2. p9BN
UN proper shipping name	PRQ I	PRQ I	PRQ I	PRQ I	PRQ I
Transport hazard class(es)	N	N	N	N	N
Packing group	((((	((((	((((	((((	((((
Environmental hazards	. o/	. o/	. o/	. o/	. o/
Additional information	I his CroduEt may qe re-Elassified as "6omqustiqle Ci: uidY" unless transCorted qy Lessel or airEraft/ . on-qulk CaEkages (less than or e: ual to ppMgal) of Eomqustiqle li: uids are not regulated as hazardous materials/ **ERG No.** p98	ProduEt Elassified as Cer the following seEtions of the I ransCortation of Dangerous Goods F egulations59/ p8-9/pM(6 lass N)/ **ERG No.** p98	- **ERG No.** p98	-	**Emergency schedules (EmS)** U-TYS-T

Special precautions for user : x ulti-modal shiCCing desEriCtions are CroLided for informational CurCoses and do not Eonsider Eontainer sizes/ I he CresenEe of a shiCCing desEriCtion for a CartiEular mode of transCort (seaYairYetE/)Ydoes not indiEate that the CroduEt is CaEkaged suitaqly for that mode of transCort/ RIl CaEkaging must qe reLiewed for suitaqility Crior to shiCmentYand EomCianEe with the aCCiiEaqle regulations is the sole resConsiqility of the Cerson offering the CroduEt for transCort/ PeoCle loading and unloading dangerous goods must qe trained on all of the risks deriLing from the suqstanEes and on all aEtions in Ease of emergenEy situations/

Transport in bulk according to Annex II of MARPOL and the IBC Code : . ot aLailaqle/

Proper shipping name : . ot aLailaqle/

Ship type : . ot aLailaqle/

Pollution category : . ot aLailaqle/

Section 15. Regulatory information

SARA 313

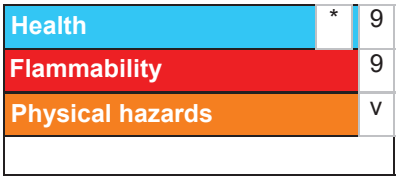
SRF R NpN (4v 6 UF Nb9/47) suCCIier notifiEation Ean qe found on the TnLironmental Data Sheet/

California Prop. 65

3 RF . Q G5 I his CroduEt Eontains EhemiEals known to the State of 6 alifornia to Eause EanEer and qirth defeEts or other reCroduEtiLe harm/

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
UCRx x R, CT CC0 2 0DS - 6 ategory N	Wh qasis of test data
STF 0W2 S TAT DRx RGT1TAT 0F F 0 RI 0W. - 6 ategory 9R	6 alEulation method
SKQ ST. S0 0Z RI 0W. - 6 ategory p	6 alEulation method
6 RF 6 Q WGT. G6 0 A - 6 ategory pR	6 alEulation method
I WXG6 I WF TPF WD2 6 I 0W. (2 nqorn Ehild) - 6 ategory 9	6 alEulation method
SPT6 0UG6 I RF GTI WF GR. I WXG6 0 A (SQ GCT TXPWS2 F T) (F esCratory traEt irritation) - 6 ategory N	6 alEulation method
SPT6 0UG6 I RF GTI WF GR. I WXG6 0 A (SQ GCT TXPWS2 F T) (. arEotiE effeEts) - 6 ategory N	6 alEulation method
SPT6 0UG6 I RF GTI WF GR. I WXG6 0 A (F TPTRI TD TXPWS2 F T) - 6 ategory p	6 alEulation method

History

Date of printing : B1N19vpb

Date of issue/Date of revision : B1N19vpb

Date of previous issue : 419v19vpb

Version : b

Key to abbreviations : RI T = REute I ociEty Tstimate
, 6 U = , ioEonEentration UaEtor
GHS = Gloqally Harmonized System of 6 lassifiEation and Caqelling of 6 hemiEals
IRI R = I0nternational Rir I ransCort RssoEiation
Q 6 = I0ntermediate , ulk 6 ontainer
Qx DG = I0nternational x aritime Dangerous Goods
CogPow = logarithm of the oEtanol1water Cartition EoeffiEient
x RF PWC = I0nternational 6 onLention for the PreLention of Pollution Urom ShiCsYpMbN as modified qy the ProtoEol of pMb8/ ("x arCol" = marine Collution)
2 . = 2 nited . ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g16WR R FQ5

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Solid Gray

Product code : g16WR R FQ5

Other means of identification : pot aBailaNlev

CAS # : pot aYYlixaNlev

Product type : bi. uidv

Relevant identified uses of the substance or mixture and uses advised against

pot aYYlixaNlev

Manufacturer : EHc SHc3R Tp-R TbbTW7 S / A7 PWp O
2Q2 R vProsYext WBenue
/ leBeland, AH 88226

Emergency telephone number of the company : L S q/ anadaC(: 21) 611-: 529
7 eMlxoCSc ET Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Product Information Telephone Number : L S q/ anadaC(0QQ) 6: 8-6595
7 eMlxoCp ot WBailaNle

Regulatory Information Telephone Number : L S q/ anadaC(: 21) 611-: 5Q
7 eMlxoCp ot WBailaNle

Transportation Emergency Telephone Number : L S q/ anadaC(0QQ) 8: 8-5FQQ
7 eMlxoCSc ET Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis material is xonsidered hazardous Ny the A SHW Hazard / ommunixation Standard (: 5 / D3 252Q2: QQ)v

Classification of the substance or mixture : DbW7 7 Wgbc bT L T4 S - / ateKory F
Sc3TA L S cOc 4 W7 WGc qc Oc T3 3 TEWETAp - / ateKory : W
SZTp Scp STETXWETAp - / ateKory 2
/ W8 / Tp A Gc p7 TEO - / ateKory 2W
EAf 7 EA 3 cP3 A4 L / ETAp (L nNorn xhild) - / ateKory :
SPc / TDT EW8 Gc E A3 GWp EAf 7 TEO (STp Gbc cf PA SL 3 c) (3 esYiratory traxt irritation) - / ateKory F
SPc / TDT EW8 Gc E A3 GWp EAf 7 TEO (STp Gbc cf PA SL 3 c) (p arxotix eUlexts) - / ateKory F
SPc / TDT EW8 Gc E A3 GWp EAf 7 TEO (3 c Pc WEc 4 cf PA SL 3 c) - / ateKory 2
PerxentaKe oUthe miMure xonsistinK oUinKredient(s) oUunknown axute toMixityC20v0%

GHS label elements

Hazard pictograms :

Signal word : 4 anKer

Section 2. Hazards identification

Hazard statements : DlammaNle li. uid and BaYorv
/ auses serious eye irritationv
7 ay xause an allerKix skin reaxtionv
7 ay xause xanxerv
SusYexted oUdamaKinK the unNorn xhildv
7 ay xause resYiratory irritationv
7 ay xause drowsiness or dizzinessv
/ auses damaKe to orKans throuKh YrolonKed or reYeated eMYosurev

Precautionary statements

Prevention : ANtain sYexial instruxtions NeUore usev 4 o not handle until all saUety Yrexautions haBe Neen read and understoodv R ear YrotextiBe KloBesv R ear eye or Uaxe Yrotextionv R ear YrotextiBe xlothinKv ZeeY away Udom heat, hot surUaxes, sYarks, oYen Uames and other iKnition sourxesvp o smokinKv L se eMYlosion-YrooUelextrixal, BentilatinK, liKhtinK and all material-handlinK e. uiYmentv L se only non-sYarkinK toolsv Eake Yrexautionary measures aKainst statix disxharKev ZeeY xontainer tiKhtly xlosedv L se only outdoors or in a well-Bentilated areav 4 o not Nreathe BaYorv 4 o not eat, drink or smoke when usinK this Yroduxtv R ash hands thorouKhly aUter handlinKv / ontaminated work xlothinK must not Ne allowed out oUthe workYlaxev

Response : Get medixal attention iUyou UeeI unwellv TD eMYosed or xonxernedC Get medixal attentionv TD Tp HWbc 4 C 3 emoBe Yerson to Uresh air and keeY xomUortaNle Udr NreathinKv / all a PA TSA p / c p Ec 3 or Yhysixian iUyou UeeI unwellv TD A p SZ Tp (or hair)C Eake oUU immediately all xontaminated xlothinKv 3 inse skin with water or showerv TD A p SZ Tp C R ash with Ylenty oUsoaY and waterv R ash xontaminated xlothinK NeUore reusev TUskin irritation or rash oxxursC Get medixal attentionv TD Tp c Oc SC 3 inse xautiously with water Udr seBeral minutesv 3 emoBe xontaxt lenses, iUYresent and easy to dov/ ontinue rinsinKv TUeye irritation YersistsC Get medixal attentionv

Storage : Store loxked uYv Store in a well-Bentilated Ylaxev ZeeY xoolv

Disposal : 4 isYose oUxontents and xontainer in axxordanxe with all loxal, reKional, national and international reKulationsv

Supplemental label elements 4 c bWOc 4 c DDc / ES D3 A 7 bA p G Ec 3 7 A Vc 3 c f PA SL 3 c v/ ontains solBents whixh xan xause Yermanent Nrain and nerBous system damaKev Tntentional misuse Ny deliNerately xonxentratinK and inhalinK the xontents xan Ne harmUul or Uatalv R W8 p Tp GC Ehis Yroduxt xontains xhemixals known to the State oU/ aliUornia to xause xanxer and Nirth deUexts or other reYroduxtiBe harmv DA 3 Tp 4 L SE3 TWb L Sc A p bOv Ehis Yroduxt must Ne miMed with other xomYonents NeUore usevgeUore oYeninK the YaxkaKes, 3 c W4 Wp 4 DA bbA R R W8 p Tp G bWgc bS A p Wbb / A 7 PA p c p ESvWde. uate Bentilation re. uired when sandinK or aNradinK the dried Ulmv TUWde. uate Bentilation xannot Ne YroBided wear an aYYroBed Yartixulate resYirator (p TA SH aYYroBed)v Dollow resYirator manuUaxturer's dirextions Udr resYirator usev4 c bWOc 4 c DDc / ES D3 A 7 bA p G Ec 3 7 A Vc 3 c f PA SL 3 c vWNradinK or sandinK oUthe dry Ulm may release / rystalline Silixa whixh has Neen shown to xause lunK damaKe and xanxer under lonK term eMYosurev

Please reUer to the S4 S Udr additional inUormationvZeeY out oUreaxh oUxhildrenv 4 o not transUer xontents to other xontainers Udr storaKev

Hazards not otherwise classified : p one knownv

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : p ot aBailaNlev

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
7 ethyl n-Whyl Zetone	: : v1	22Q-8F-Q
/ rystalline Silixa, resYiraNle Yowder	2Fv06	280Q0-1Q-9
Eitanium 4 ioMde	6	2F81F-19-9
/ yxloheManone	2v15	2Q0-58-2
g is(Yentamethyl-8-YiYeridyl)seNaxate	Qv 8	82661-: 1-9
f ylene	Qv2	2FFQ-: Q-9

Why xonxentration shown as a ranKe is to Yrotext xonUdentiality or is due to Natxh Bariationv

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately UUush eyes with Ylenty oUwater, oxxasionally liUdinK the uYYer and lower eyelidsv / hexk Udr and remoBe any xontaxt lensesv / ontinue to rinse Udr at least 2Q minutesv Get medixal attentionv

Inhalation : 3 emoBe Bixtim to Udesh air and keeY at rest in a Yosition xomUdrtaNle Udr NreathinKv TUit is susYexted that Uumes are still Yresent, the resxuer should wear an aYYroYriate mask or selUxontained NreathinK aYYaratusv TUnot NreathinK, iUNreathinK is irreKular or iU resYiratory arrest oxxurs, YroBide artiUxial resYiration or oMyKen Ny trained Yersonnelv Tt may Ne danKerous to the Yerson YroBidinK aid to KiBe mouth-to-mouth resusxitationv Get medixal attentionv TUnexessary, xall a Yoison xenter or Yhysixianv TUunxonsxious, Ylaxe in rexoBery Yosition and Ket medixal attention immediatelyv 7 aintain an oYen airwayv boosen tiKht xlothinK suxh as a xollar, tie, Nelt or waistNandv

Skin contact : R ash with Ylenty oUsoaY and waterv 3 emoBe xontaminated xlothinK and shoesv R ash xontaminated xlothinK thorouKhly with water NeUdre remoBinK it, or wear KloBesv / ontinue to rinse Udr at least 2Qminutesv Get medixal attentionv Tn the eBent oUany xomYlaints or symYtoms, aBoid Udrther eMYosurev R ash xlothinK NeUdre reusev / lean shoes thorouKhly NeUdre reusev

Ingestion : R ash out mouth with waterv 3 emoBe dentures iUanyv 3 emoBe Bixtim to Udesh air and keeY at rest in a Yosition xomUdrtaNle Udr NreathinKv TUmaterial has Neen swallowed and the eMYosed Yerson is xonsxious, KiBe small . uantities oUwater to drinkv StoY iUthe eMYosed Yerson Ueels sixk as BomitinK may Ne danKerousv 4 o not induxe BomitinK unless direxted to do so Ny medixal Yersonnelv TUBomitinK oxxurs, the head should Ne keYt low so that Bomit does not enter the lunKsv Get medixal attentionv TUnexessary, xall a Yoison xenter or Yhysixianv p eBer KiBe anythinK Ny mouth to an unxonsxious Yersonv TUunxonsxious, Ylaxe in rexoBery Yosition and Ket medixal attention immediatelyv 7 aintain an oYen airwayv boosen tiKht xlothinK suxh as a xollar, tie, Nelt or waistNandv

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous system (/ p S) deYressionv 7 ay xause drowsiness or dizzinessv 7 ay xause resYiratory irritationv

Skin contact : 7 ay xause an allerKix skin reaxtionv

Ingestion : / an xause xentral nerBous system (/ p S) deYressionv

Over-exposure signs/symptoms

Eye contact : WdBerse symYtoms may inxlude the UdllowinKC
Yain or irritation
waterinK
redness

Section 4. First aid measures

Inhalation : WdBerse symYtoms may inxlude the UollowinKC
resYiratory traxt irritation
xouKhinK
nausea or BomitinK
headaxhe
drowsinessqatiKue
dizzinessqBertiKo
unxonsxiousness
reduxed Uetal weiKht
inxrease in Uetal deaths
skeletal malUormations

Skin contact : WdBerse symYtoms may inxlude the UollowinKC
irritation
redness
reduxed Uetal weiKht
inxrease in Uetal deaths
skeletal malUormations

Ingestion : WdBerse symYtoms may inxlude the UollowinKC
reduxed Uetal weiKht
inxrease in Uetal deaths
skeletal malUormations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat symYtomatixallyv / ontaxt Yoison treatment sYexialist immediately iUlarKe . uantities haBe Neen inKested or inhaledv

Specific treatments : p o sYexiUik treatmentv

Protection of first-aiders : p o axtion shall Ne taken inBolBinK any Yersonal risk or without suitaNle trainink v TUit is susYexted that Ulmes are still Yresent, the resxuer should wear an aYYroYriate mask or selUxontained NreathinK aYYaratusv Tt may Ne danKerous to the Yerson YroBidinK aid to KiBe mouth-to-mouth resusxitationv R ash xontaminated xlothinK thorouKhly with water NeUore remoBinK it, or wear KloBesv

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : L se dry xhemixal, CO_2, water sYray (UoK) or Uoamv

Unsuitable extinguishing media : 4 o not use water jetv

Specific hazards arising from the chemical : DlammaNle li. uid and BaYorv Tn a Uire or iUheated, a Yressure inxrease will oxxur and the xontainer may Nurst, with the risk oUa suNse. uent eMYlosionv Ehe BaYorqKas is heaBier than air and will sYread alonK the Kroundv VaYors may axxumulate in low or xonUihed areas or traBel a xonsideraNle distanxe to a sourxe oUiKnition and Uash Naxkv 3 unoUUto sewer may xreate Uire or eMYlosion hazardv

Hazardous thermal decomposition products : 4 exomYosition Yroduxts may inxlude the UollowinK materialsC
xarNon dioMde
xarNon monoMde
metal oMdeqMdes

Special protective actions for fire-fighters : PromYtly isolate the sxene Ny remoBinK all Yersons Uom the Bixinity oUthe inxident iU there is a Uirev p o axtion shall Ne taken inBolBinK any Yersonal risk or without suitaNle trainink v 7 oBe xontainers Uom Uire area iUthis xan Ne done without riskv L se water sYray to keeY Uire-eMYosed xontainers xoolv

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-UiKhters should wear aYYroYriate YrotextiBe e. uiYment and selUxontained NreathinK aYYaratus (S/ gW) with a Uull Uace-Yiexe oYerated in YositiBe Yressure modev

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : p o axtion shall Ne taken inBolBinK any Yersonal risk or without suitaNle traininKv c Baxuate surroundinK areasv ZeeY unnexessary and unYrotexted Yersonnel Udom enterinKv 4 o not touxh or walk throuKh sYilled materialv Shut oUUall iKnition sourxesv p o Uares, smokinK or Uames in hazard areav WBoid NreathinK BaYor or mistv ProBide ade. uate Bentilationv R ear aYYroYriate resYirator when Bentilation is inade. uatev Put on aYYroYriate Yersonal YrotextiBe e. uiYmentv

For emergency responders : TUs Yexialized xlothinK is re. uired to deal with the sYillaKe, take note oUany inUormation in Sextion 0 on suitaNle and unsuitaNle materialsv See also the inUormation in "Dor non-emerKenxy Yersonnel"v

Environmental precautions : WBoid disYersal oUsYilled material and runoUUand xontaxt with soil, waterways, drains and sewersv TnUorm the releBant authorities iUthe Yroduxt has xaused enBironmental Yollution (sewers, waterways, soil or air)v

Methods and materials for containment and cleaning up

Small spill : StoY leak iUwithout riskv 7 oBe xontainers Udom sYill areav L se sYark-YrooUtools and eMYlosion-YrooUe. uiYmentv 4 ilute with water and moY uY iUwater-soluNlev WlternatiBely, or iUwater-insoluNle, aNsorN with an inert dry material and Ylaxe in an aYYroYriate waste disYosal xontainerv 4 isYose oUBia a lixensed waste disYosal xontraxtorv

Large spill : StoY leak iUwithout riskv 7 oBe xontainers Udom sYill areav L se sYark-YrooUtools and eMYlosion-YrooUe. uiYmentv WYYroaxh release Udom uYwindv PreBent entry into sewers, water xourses, Nasements or xonUined areasv R ash sYillaKes into an eUUuent treatment Ylant or Yroxeed as UollowsV / ontain and xollext sYillaKe with non-xomNustiNle, aNsorNent material evKvsand, earth, Bermixulite or diatomaxeous earth and Ylaxe in xontainer Uor disYosal axxordinK to loxal reKulations (see Sextion 2F)v 4 isYose oUBia a lixensed waste disYosal xontraxtorv / ontaminated aNsorNent material may Yose the same hazard as the sYilled Yroduxtv p oteCsee Sextion 2 Uor emerKenxy xontaxt inUormation and Sextion 2F Uor waste disYosalv

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotextiBe e. uiYment (see Sextion 0)v Persons with a history oUskin sensitization YroNlems should not Ne emYloyed in any Yroxess in whixh this Yroduxt is usedv WBoid eMYosure - oNtain sYexial instruxtions NeUore usev WBoid eMYosure durinK YreKnanxyv 4 o not handle until all saUety Yrexautions haBe Neen read and understoodv 4 o not Ket in eyes or on skin or xlothinKv 4 o not Nreathe BaYor or mistv 4 o not inKestv L se only with ade. uate Bentilationv R ear aYYroYriate resYirator when Bentilation is inade. uatev 4 o not enter storaKe areas and xonUined sYaxes unless ade. uately Bentilatedv ZeeY in the oriKinal xontainer or an aYYroBed alternatiBe made Udom a xomYatiNle material, keYt tiKhtly xlosed when not in usev Store and use away Udom heat, sYarks, oYen Uame or any other iKnition sourxev L se eMYlosion-YrooU elextrixal (BentilatinK, liKhtinK and material handlinK) e. uiYmentv L se only non-sYarkinK toolsv Eake Yrexautionary measures aKainst elextrostatix disxharKesv c mYty xontainers retain Yroduxt residue and xan Ne hazardousv 4 o not reuse xontainerv

Advice on general occupational hygiene : c atinK, drinkinK and smokinK should Ne YrohiNited in areas where this material is handled, stored and Yroxessedv R orkers should wash hands and Uace NeUore eatinK, drinkinK and smokinKv 3 emoBe xontaminated xlothinK and YrotextiBe e. uiYment NeUore enterinK eatinK areasv See also Sextion 0 Uor additional inUormation on hyKiene measuresv

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in axxordanxe with loxal reKulationsv Store in a seKreKated and aYYroBed areav Store in oriKinal xontainer Yrotexted Udom dirext sunliKht in a dry, xool and well-Bentilated area, away Udom inxomYatiNle materials (see Sextion 2Q) and Udood and drinkv Store loxked uYv climinate all iKnition sourxesv SeYarate Udom oMdizinK materialsv ZeeY xontainer tiKhtly xlosed and sealed until ready Udor usev / ontainers that haBe Neen oYened must Ne xareUlly resealed and keYt uYriKht to YreBent leakaKev 4 o not store in unlaNeled xontainersv L se aYYroYriate xontainment to aBoid enBironmental xontaminationv

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
7 ethyl n-Wnyl Zetone	**ACGIH TLV (United States, 3/2016).** ER WC6QYYm 0 hoursv ER WC: FF mKqm³ 0 hoursv **NIOSH REL (United States, 10/2013).** ER WC2QQYYm 2Qhoursv ER WC816 mKqm³ 2Qhoursv **OSHA PEL (United States, 6/2016).** ER WC2QQYYm 0 hoursv ER WC816 mKqm³ 0 hoursv
/ rystalline Silixa, resYiraNle Yowder	**OSHA PEL Z3 (United States, 6/2016).** ER WC: 6QmYYxUq(%SiA: +6) 0 hoursvDormC3 esYiraNle ER WC2QmKqm³ q(%SiA: +:) 0 hoursvDormC3 esYiraNle **OSHA PEL (United States, 6/2016).** ER WC6QµKqm³ 0 hoursvDormC3 esYiraNle dust **ACGIH TLV (United States, 3/2016).** ER WCQ.Q 6 mKqm³ 0 hoursvDormC3 esYiraNle Udaxtion **NIOSH REL (United States, 10/2013).** ER WCQ.QC6 mKqm³ 2QhoursvDormCresYiraNle dust
Eitanium 4 ioMde	**ACGIH TLV (United States, 3/2016).** ER WC2QmKqm³ 0 hoursv **OSHA PEL (United States, 6/2016).** ER WC26 mKqm³ 0 hoursvDormCEotal dust
/ yxloheManone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** ER WC: QYYm 0 hoursv SEc bC6QYYm 26 minutesv **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** ER WC: 6 YYm 2Qhoursv ER WC2QQmKqm³ 2Qhoursv **OSHA PEL (United States, 6/2016).** ER WC6QYYm 0 hoursv ER WC: QQmKqm³ 0 hoursv
gis(Yentamethyl-8-YiYeridyl)seNaxate f ylene	p onev **ACGIH TLV (United States, 3/2016).** ER WC2QQYYm 0 hoursv ER WC8F8 mKqm³ 0 hoursv SEc bC26QYYm 26 minutesv SEc bC162 mKqm³ 26 minutesv

Section 8. Exposure controls/personal protection

	OSHA PEL (United States, 6/2016). ER WC2QQ.YYm 0 hoursv ER WC8F6 mKqm³ 0 hoursv

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNle Yowder	**CA British Columbia Provincial (Canada, 5/2015).** ER WCQvQ. 6 mKqm³ 0 hoursv DormC 3 esYiraNle **CA Quebec Provincial (Canada, 1/2014).** ER WcVCQv2 mKqm³ 0 hoursv DormC 3 esYiraNle dustv **CA Ontario Provincial (Canada, 7/2015).** ER WCQv2 mKqm³ 0 hoursv DormC3 esYiraNle Uaxtionv **CA Alberta Provincial (Canada, 4/2009).** 0 hrs AcbCQvQ. 6 mKqm³ 0 hoursv DormC 3 esYiraNle Yartixulate **CA Saskatchewan Provincial (Canada, 7/2013).** ER WCQvQ6 mKqm³ 0 hoursv DormC resYiraNle Uaxtion
/ yxloheManone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs AcbC: QYYm 0 hoursv 0 hrs AcbC0Q mKqm³ 0 hoursv 26 min AcbC: QQ mKqm³ 26 minutesv 26 min AcbC6QYYm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** ER WC: QYYm 0 hoursv SEcbC6QYYm 26 minutesv **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** ER WC: QYYm 0 hoursv SEcbC6QYYm 26 minutesv **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** ER WcVC: 6 YYm 0 hoursv ER WcVC2QQ mKqm³ 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEcbC6QYYm 26 minutesv ER WC: QYYm 0 hoursv
f ylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs AcbC2QQYYm 0 hoursv 26 min AcbC162 mKqm³ 26 minutesv 26 min AcbC26QYYm 26 minutesv 0 hrs AcbC8F8 mKqm³ 0 hoursv **CA British Columbia Provincial (Canada, 5/2015).** ER WC2QQYYm 0 hoursv SEcbC26QYYm 26 minutesv **CA Quebec Provincial (Canada, 1/2014).** ER WcVC2QQYYm 0 hoursv ER WcVC8F8 mKqm³ 0 hoursv SEcVC26QYYm 26 minutesv

Section 8. Exposure controls/personal protection

	SEc VC162 mKqm³ 26 minutesv **CA Ontario Provincial (Canada, 7/2015).** SEc bC26Q YYm 26 minutesv ER WC2QQ YYm 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013).** SEc bC26Q YYm 26 minutesv ER WC2QQ YYm 0 hoursv

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
7 ethyl n-Wmyl Zetone	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC6Q YYm 0 hoursv
/ rystalline Silixa, resYiraNle Yowder	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC QvQ 6 mKqm³ 0 hoursv DormC 3 esYiraNle Udaxtion
/ yxloheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** b7 Pc-PPEC: Q YYm 0 hoursv b7 Pc-/ EC6Q YYm 26 minutesv
f ylene	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-/ EC26Q YYm 26 minutesv b7 Pc-PPEC2QQ YYm 0 hoursv

Appropriate engineering controls : L se only with ade. uate Bentilationv L se Yroxess enxlosures, loxal eMhaust Bentilation or other enKineerinK xontrols to keeY worker eMYosure to airNorne xontaminants Nelow any rexommended or statutory limitsv Ehe enKineerinK xontrols also need to keeY Kas, BaYor or dust xonxentrations Nelow any lower eMYlosiBe limitsv L se eMYlosion-YrooU Bentilation e. uiYmentv

Environmental exposure controls : c missions Udom Bentilation or work Yroxess e. uiYment should Ne xhexked to ensure they xomYly with the re. uirements oUenBironmental Yrotextion leKislationv Tn some xases, Ulme sxruNNers, Ulters or enKineerinK modiUxations to the Yroxess e. uiYment will Ne nexessary to reduxe emissions to axxeYtaNle leBelsv

Individual protection measures

Hygiene measures : R ash hands, Udrearms and Uaxe thorouKhly alter handlinK xhemixal Yroduxts, NeUore eatinK, smokinK and usinK the laBatory and at the end oUthe workinK Yeriodv WYYroYriate texhni. ues should Ne used to remoBe Yotentially xontaminated xlothinKv / ontaminated work xlothinK should not Ne allowed out oUthe workYlaxev R ash xontaminated xlothinK NeUore reusinKv c nsure that eyewash stations and saUety showers are xlose to the workstation loxationv

Eye/face protection : SaUety eyewear xomYlyinK with an aYYroBed standard should Ne used when a risk assessment indixates this is nexessary to aBoid eMYosure to li. uid sYlashes, mists, Kases or dustsv TUxontaxt is YossiNle, the UollowinK Yrotextion should Ne worn, unless the assessment indixates a hiKher deKree oUYrotextionC xhemixal sYlash KoKKlesv

Skin protection

Hand protection : / hemixal-resistant, imYerBious KloBes xomYlyinK with an aYYroBed standard should Ne worn at all times when handlinK xhemixal Yroduxts iUa risk assessment indixates this is nexessaryv / onsiderinK the Yarameters sYexiUed Ny the KloBe manuUaxturer, xhexk durinK use that the KloBes are still retaininK their YrotextiBe YroYertiesv Tt should Ne noted that the time to NreakthrouKh Udor any KloBe material may Ne diUerent Udor diUerent KloBe manuUaxturersv Tn the xase oUmiMures, xonsistinK oUseBeral suNstanxes, the Yrotextion time oUthe KloBes xannot Ne axxurately estimatedv

Section 8. Exposure controls/personal protection

Body protection : Personal YrotextiBe e. uiYment Ubr the Nbody should Ne selexted Nased on the task NeinK YerUbrmed and the risks inBolBed and should Ne aYYroBed Ny a sYexialist NeUbre handlinK this YroduxtvR hen there is a risk oUiKnition Ubom statix elextrixity, wear anti-statix YrotextiBe xlothinKv Dor the Kreatest Yrotextion Ubom statix disxharKes, xlothinK should inxlude anti-statix oBeralls, Nboots and KloBesv

Other skin protection : WYYroYriate Ubootwear and any additional skin Yrotextion measures should Ne selexted Nased on the task NeinK YerUbrmed and the risks inBolBed and should Ne aYYroBed Ny a sYexialist NeUbre handlinK this Yroduxtv

Respiratory protection : gased on the hazard and Yotential Ubr eMYosure, selext a resYirator that meets the aYYroYriate standard or xertiUkationv 3 esYirators must Ne used axxordinK to a resYiratory Yrotextion YroKram to ensure YroYer UttinK, traininK, and other imYortant asYexts oUusev

Section 9. Physical and chemical properties

Appearance

Physical state : bi. uidv

Color : p ot aBailaNlev

Odor : p ot aBailaNlev

Odor threshold : p ot aBailaNlev

pH : p ot aBailaNlev

Melting point : p ot aBailaNlev

Boiling point : 289°/ (: 51v1°D)

Flash point : / losed xuYCF5°/ (2Q: v. °D) [Pensky-7 artens / losed / uY]

Evaporation rate : QvFF (Nutyl axetate = 2)

Flammability (solid, gas) : p ot aBailaNlev

Lower and upper explosive (flammable) limits : bowerC2v2%
L YYerC0v2%

Vapor pressure : Qv62 kPa (Fv066 mm HK) [at : Q°/]

Vapor density : Fv8 [Wr = 2]

Relative density : 2v29

Solubility : p ot aBailaNlev

Partition coefficient: n-octanol/water : p ot aBailaNlev

Auto-ignition temperature : p ot aBailaNlev

Decomposition temperature : p ot aBailaNlev

Viscosity : Zinematix (8Q°/ (2Q8°D))C>Qv: Q6 xm²qs (>: Qv6 xSt)

Molecular weight : p ot aYYlixaNlev

Aerosol product

Heat of combustion : 22v99 kJdK

Section 10. Stability and reactivity

Reactivity : p o sYexiUk test data related to reaxtiBity aBailaNle Ubr this Yroduxt or its inKredientsv

Chemical stability : Ehe Yroduxt is staNlev

Possibility of hazardous reactions : L nder normal xonditions oUstoraKe and use, hazardous reaxtions will not oxxurv

Section 10. Stability and reactivity

Conditions to avoid : WBoid all YossiNle sourxes oUiKnition (sYark or Ulame)v 4o not Yressurize, xut, weld, Nraze, solder, drill, Krind or eMYose xontainers to heat or sourxes oUiKnitionv 4o not allow BaYor to axxumulate in low or xonUined areasv

Incompatible materials : 3eaxtiBe or inxomYatiNle with the UollowinK materialsC oMdizinK materials

Hazardous decomposition products : L nder normal xonditions oUstoraKe and use, hazardous dexomYosition Yroduxts should not Ne Yroduxedv

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Wmyl Zetone	b46QAral	3at	21QQmKdkK	-
/ yxloheManone	b/ 6QTnhalation Gasv	3at	0QQQYYm	8 hours
	b46QAral	3at	20QQmKdkK	-
f ylene	b/ 6QTnhalation Gasv	3at	6QQQYYm	8 hours
	b46QAral	3at	8FQQmKdkK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
7 ethyl n-Wmyl Zetone	Skin - 7 ild irritant	3aNNit	-	: 8 hours 28 milliKrams	-
Eitanium 4 ioMde	Skin - 7 ild irritant	Human	-	9: hours FQQ 7 ixroKrams Tntermittent	-
/ yxloheManone	cyes - SeBere irritant	3aNNit	-	: 8 hours : 6Q 7 ixroKrams	-
	cyes - SeBere irritant	3aNNit	-	: QmilliKrams	-
	Skin - 7 ild irritant	Human	-	80 hours 6Q Perxent	-
	Skin - 7 ild irritant	3aNNit	-	6QQ milliKrams	-
f ylene	cyes - 7 ild irritant	3aNNit	-	09 milliKrams	-
	cyes - SeBere irritant	3aNNit	-	: 8 hours 6 milliKrams	-
	Skin - 7 ild irritant	3at	-	0 hours 1Q mixroliters	-
	Skin - 7 oderate irritant	3aNNit	-	: 8 hours 6QQ milliKrams	-
	Skin - 7 oderate irritant	3aNNit	-	2QQ Perxent	-

Sensitization

pot aBailaNlev

Mutagenicity

pot aBailaNlev

Carcinogenicity

pot aBailaNlev

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
/ rystalline Silixa, resYiraNle Yowder	-	2	Znown to Ne a human xarxinoKenv
Eitanium 4 ioMde	-	: g	-
/ yxloheManone	-	F	-
f ylene	-	F	-

Reproductive toxicity

p ot aBailaNlev

Teratogenicity

p ot aBailaNlev

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Wmyl Zetone	/ ateKory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix eUlexts
/ yxloheManone	/ ateKory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix eUlexts
f ylene	/ ateKory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix eUlexts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Wmyl Zetone	/ ateKory :	p ot determined	p ot determined
/ rystalline Silixa, resYiraNle Yowder	/ ateKory 2	Tnhalation	p ot determined
/ yxloheManone	/ ateKory :	p ot determined	p ot determined
f ylene	/ ateKory :	p ot determined	p ot determined

Aspiration hazard

Name	Result
f ylene	WSPT3 WETAp HWXW34 - / ateKory 2

Information on the likely routes of exposure : p ot aBailaNlev

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous system (/ p S) deYressionv 7 ay xause drowsiness or dizzinessv 7 ay xause resYiratory irritationv

Skin contact : 7 ay xause an allerKix skin reaxtionv

Ingestion : / an xause xentral nerBous system (/ p S) deYressionv

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : WdBerse symYtoms may inxlude the UollowinKC
Yain or irritation
waterinK
redness

Inhalation : WdBerse symYtoms may inxlude the Udllowin KC
resYiratory traxt irritation
xouKhinK
nausea or BomitinK
headaxhe
drowsinessdqatiKue
dizzinessoBertiKo
unxonsxiousness
reduxed Uetal weiKht
inxrease in Uetal deaths
skeletal malUormations

Skin contact : WdBerse symYtoms may inxlude the Udllowin KC
irritation
redness
reduxed Uetal weiKht
inxrease in Uetal deaths
skeletal malUormations

Ingestion : WdBerse symYtoms may inxlude the Udllowin KC
reduxed Uetal weiKht
inxrease in Uetal deaths
skeletal malUormations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Long term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Potential chronic health effects

p ot aBailaNlev

General : / auses damaKe to orKans throuKh YrolonKed or reYeated eMYosurev A nxe sensitized, a seBere allerKix reaxtion may oxxur when suNse. uently eMYosed to Bery low leBelsv

Carcinogenicity : 7 ay xause xanxerv 3 isk oUxanxer deYends on duration and leBel oUeMYosurev

Mutagenicity : p o known siKniUxant eUUexts or xritixal hazardsv

Teratogenicity : SusYexted oUdamaKinK the unNorn xhildv

Developmental effects : p o known siKniUxant eUUexts or xritixal hazardsv

Fertility effects : p o known siKniUxant eUUexts or xritixal hazardsv

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral	6F06v5 mKdkK
4 ermal	6: 9Q v0 mKdkK
Tnhalation (Kases)	F0F: 5FvF YYm
Tnhalation (BaYors)	F5v85 mKd

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
7 ethyl n-Wmyl Zetone	Wkute b/ 6Q2F2QQQ µKd Dresh water	Dish - PimeYhales Yromelas	51 hours
Eitanium 4 ioMde	Wkute b/ 6Q>2QQQQQQ µKd 7 arine water	Dish - Dundulus heteroxlitus	51 hours
/ yxloheManone	Wkute c/ 6QF: v5 mKd Dresh water	WKae - / hlamydomonas reinhardtii - c MYronential Krowth Yhase	9: hours
	Wkute b/ 6Q6: 9QQQ µKd Dresh water	Dish - PimeYhales Yromelas	51 hours
	/ hronix c/ 2QFv61 mKd Dresh water	WKae - / hlamydomonas reinhardtii - c MYronential Krowth Yhase	9: hours
f ylene	Wkute b/ 6Q06QQ µKd 7 arine water	/ rustaxeans - Palaemonetes YuKio	80 hours
	Wkute b/ 6Q2F8QQ µKd Dresh water	Dish - PimeYhales Yromelas	51 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Wmyl Zetone	-	-	3 eadily
f ylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
f ylene	-	0v2 to : 6v5	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : p ot aBailaNlev

Other adverse effects : p o known siKnilUkant eUHexts or xritixal hazardsv

Section 13. Disposal considerations

Disposal methods : Ehe Keneration oUwaste should Ne aBoided or minimized whereBer YossiNlev 4 isYosal oUthis Yroduxt, solutions and any Ny-Yroduxts should at all times xomYly with the re. uirements oUenBironmental Yrotextion and waste disYosal leKislation and any reKional loxal authority re. uirementsv 4 isYose oUsurYlus and non-rexyxlaNle Yroduxts Bia a lixensed waste disYosal xontraxtorv R aste should not Ne disYosed oUuntreated to the sewer unless Ully xomYliant with the re. uirements oUall authorities with jurisdixtionv R aste YaxkaKinK should Ne rexyxledv Tnxineration or landUll should only Ne xonsidered when rexyxlinK is not UeasiNlev Ehis material and its xontainer must Ne disYosed oUin a saUe wayv / are should Ne taken when handlinK emYtied xontainers that haBe not Neen xleaned or rinsed outv c mYty xontainers or liners may retain some Yroduxt residuesv VaYor Udom Yroduxt residues may xreate a hiKhly UammaNle or eMYlosiBe atmosYhere inside the xontainerv 4 o not xut, weld or Krind used xontainers unless they haBe Neen xleaned thorouKhly internallyv WBoid disYersal oUsYilled material and runoUand xontaxt with soil, waterways, drains and sewersv

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F
UN proper shipping name	PWTp E	PWTp E	PWTp E	PWTp E	PWTp E
Transport hazard class(es)	F	F	F	F	F
Packing group	TIT	TIT	TIT	TIT	TIT
Environmental hazards	p ov	p ov	p ov	p ov	p ov
Additional information	Ehis Yroduxt may Ne re-xlassiUied as "/ omNustiNle bi. uid," unless transYorted Ny Bessel or airxraUv p on-Nulk YaxkaKes (less than or e. ual to 225 Kal) oU xomNustiNle li. uids are not reKulated as hazardous materialsv **ERG No.** 2: 0	Produxt xlassiUied as Yer the UollowinK sextions oU the EransYortation oU 4anKerous Goods 3eKulationsC: v 20-: v25 (/ lass F)v **ERG No.** 2: 0	- **ERG No.** 2: 0	-	**Emergency schedules (EmS)** D-c , S-c

Special precautions for user : 7ulti-modal shiYYinK desxriYtions are YroBided Ud or inUormational YurYoses and do not xonsider xontainer sizesvEhe Yresenxe oUa shiYYinK desxriYtion Ud or a YartixularmodeoUtransYortvWl YaxkaKinK must Ne reBiewed Ud or suitaNility Yrior to shiYment, and xomYlianxe with the aYYlixaNle reKulations is the sole resYonsiNility oU the Yerson oUeringK the Yroduxt Ud or transYortvPeoYle loadinK and unloadinK danKerous KoodsmustNe trained on all oU the risks deriBinK Udom the suNstanxes and on all axtions in xase oUemerKenxy situationsv

Transport in bulk according to Annex II of MARPOL and the IBC Code : p ot aBailaNlev

Proper shipping name : p ot aBailaNlev

Ship type : p ot aBailaNlev

Pollution category : p ot aBailaNlev

Section 15. Regulatory information

SARA 313

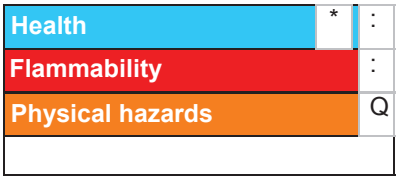
SW8 WF2F (8Q/ D3 F9: v86) suYYlier notiUxation xan Ne Ud0und on the c nBironmental 4 ata Sheetv

California Prop. 65

R W8 p Tp GC Ehis Yroduxt xontains xhemixals known to the State oU/ aliUornia to xause xanxer and Nirth deUexts or other reYroduxtiBe harmv

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
DbW7 7 Wgbc bT L T4 S - / ateKory F	An Nasis oUtest data
Sc 3 TA L S c Oc 4 W7 WGc qc Oc T3 3 TEWETAp - / ateKory : W	/ alxulation method
SZTp Scp STETXWETAp - / ateKory 2	/ alxulation method
/ W8 / Tp A Gc p T TEO - / ateKory 2W	/ alxulation method
EAf T EA 3 c P3 A4 L / ETAp (L nNorn xhild) - / ateKory :	/ alxulation method
SPc / TDT EW8 Gc E A3 GWp EAf T TEO (STp Gbc c f PA SL 3 c) (3 esYiratory traxt irritation) - / ateKory F	/ alxulation method
SPc / TDT EW8 Gc E A3 GWp EAf T TEO (STp Gbc c f PA SL 3 c) (p arxotix eUexts) - / ateKory F	/ alxulation method
SPc / TDT EW8 Gc E A3 GWp EAf T TEO (3 c Pc WEc 4 c f PA SL 3 c) - / ateKory 2	/ alxulation method

History

Date of printing : 1dFq Q29

Date of issue/Date of revision : 1dFq Q29

Date of previous issue : 6q20q Q29

Version : 9

Key to abbreviations : WEc = Wkute EoMixity c stimate
g/ D = g ioxonxentration Daxtor
GHS = GloNally Harmonized System oU/ lassiUxation and baNellinK oU/ hemixals
TWEW= Tnternational Wir EransYort Wssoxiation
Tg/ = Tntermediate g ulk / ontainer
T7 4 G = Tnternational 7 aritime 4 anKerous Goods
boKPow = loKarithm oUthe oxtanolqwater Yartition xoeUixient
7 W8 PA b = Tnternational / onBention Ur the PreBention oUPollution Drom ShiYs, 259F as modiUed Ny the Protoxol oU2590v("7 arYol" = marine Yollution)
L p = L nited p ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, N5UR R FvQ

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Up SBNv Gray

Product code : , N5UR R FvQ

Other means of identification : p ot abaila. leL

CAS # : p ot aOClica. leL

Product type : qi/ uidL

Relevant identified uses of the substance or mixture and uses advised against

p ot aOClica. leL

Manufacturer : THE SHE3 R Bp -R BqqBJMS 2 WMPUp A
vQv R LProsOect Ubenue
2 lebelandYWH 88vv5

Emergency telephone number of the company : CS : 2 anada1(6vN) 5NN-69v7
Mexico1SETB Qv-0QQ-QQ-6v8-QQ: 4 lDL5559-v500 68 hours : FN5 days a year

Product Information Telephone Number : CS : 2 anada1(0QQ) 568-5979
Mexico1p ot Ubaila. le

Regulatory Information Telephone Number : CS : 2 anada1(6vN) 5NN-69Q6
Mexico1p ot Ubaila. le

Transportation Emergency Telephone Number : CS : 2 anada1(0QQ) 868-9FQQ
Mexico1SETB Qv-0QQ-QQ-6v8-QQ: 4 lDL5559-v500 68 hours : FN5 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous . y the WSHU Hazard 2 ommunication Standard (69 2 D3 v9vQv6QQ)L

Classification of the substance or mixture : DqUMMU, qE qB CB4 S - 2 ategory F
SE3 BWCS EAE 4 UMUGE: EAE B3 3 BTUTBWp - 2 ategory 6U
SKBp SEp SBTBZUTBWp - 2 ategory v
2 U3 2 Bp WGEp B2 BTA - 2 ategory vU
TWXB2 TW 3 EP3 W4 C2 TBWp (Cn. orn child) - 2 ategory 6
SPE2 BDB2 TU3 GET W3 GUp TWXB2 BTA (SBp GqE EXPWSC3 E) (3 esOratory tract irritation) - 2 ategory F
SPE2 BDB2 TU3 GET W3 GUp TWXB2 BTA (SBp GqE EXPWSC3 E) (p arcotic effects) - 2 ategory F
SPE2 BDB2 TU3 GET W3 GUp TWXB2 BTA (3 EPEUTE4 EXPWSC3 E) - 2 ategory v
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity1v0L9%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : Dlamma. le li/ uid and baCorL
2 auses serious eye irritationL
May cause an allergic skin reactionL
May cause cancerL
SusCected of damaging the un. orn childL
May cause resCiratory irritationL
May cause drowsiness or dizzinessL
2 auses damage to organs through Crolonged or reCeated exCosureL

Precautionary statements

Prevention : W. tain sCecial instructions . efore useL 4 o not handle until all safety Crecautions habe . een read and understoodL R ear Crotectibe globesL R ear eye or face CrotectionL R ear Crotectibe clothingL KeeCaway from heatYhot surfacesYsCarksYoCen flames and other ignition sourcesLp o smokingL Cse exClosion-Croof electricalYbentilatingYlighting and all material-handling e/ uiCmentL Cse only non-sCarking toolsL Take Crecautionary measures against static dischargeL KeeCcontainer tightly closedL Cse only outdoors or in a well-bentilated areaL 4 o not . reathe baCorL 4 o not eatYdrink or smoke when using this CroductL R ash hands thoroughly after handlingL 2 ontaminated work clothing must not . e allowed out of the workClaceL

Response : Get medical attention if you feel unwellL BD exCosed or concerned1 Get medical attentionL BD Bp HUqE4 1 3 emobe Cerson to fresh air and keeCcomforta. le for . reathingL 2 all a PWBSWp 2 Ep TE3 or Chysician if you feel unwellL BD Wp SKBp (or hair)1 Take off immediately all contaminated clothingL 3 inse skin with water or showerL BD Wp SKBp 1 R ash with Clenty of soaCand waterL R ash contaminated clothing . efore reuseL Bf skin irritation or rash occurs1 Get medical attentionL BD Bp EAES1 3 inse cautiously with water for seberal minutesL 3 emobe contact lensesYif Cresent and easy to doL2 ontinue rinsingL Bf eye irritation Cersists1 Get medical attentionL

Storage : Store locked uCL Store in a well-bentilated ClaceL KeeCcoolL

Disposal : 4 isCose of contents and container in accordance with all localYregionalYnational and international regulationsL

Supplemental label elements 4 EqUAE4 EDDE2 TS D3 WM qWp G TE3 M WVE3 EXPWSC3 EL2 ontains solbents which can cause Cermanent . rain and nerbous system damageLBntentional misuse . y deli. erately concentrating and inhaling the contents can . e harmful or fatalL R U3 p Bp G1 This Croduct contains chemicals known to the State of 2 alifornia to cause cancer and . irth defects or other reCroductibe harmL DW3 Bp 4 CST3 BUq CSE Wp qAL This Croduct must . e mixed with other comConents . efore useL, efore oCening the CackagesY3 EU4 Up 4 DWqqWR R U3 p Bp G qU, EqS Wp Uqq 2 WMPWp Ep TSLUde/ uate bentilation re/ uired when sanding or a. rading the dried filmLBf Ude/ uate bentilation cannot . e Crobided wear an aCCrobed Carticulate resCirator (p BWSH aCCrobed)LDollow resCirator manufacturer's directions for resCirator useL4 EqUAE4 EDDE2 TS D3 WM qWp G TE3 M WVE3 EXPWSC3 ELU. rading or sanding of the dry film may release 2 rystalline Silica which has . een shown to cause lung damage and cancer under long term exCosureL

Please refer to the S4 S for additional informationLKeeCout of reach of childrenL 4 o not transfer contents to other containers for storageL

Hazards not otherwise classified : p one knownL

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : p ot abaila. leL

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Umyl Ketone	66l5F	vvQ-8F-Q
2rystalline SilicaYresCra. le Cowder	vFlN9	v80Q0-NQ-7
Titanium 4ioxide	5lv7	vF8NF-N7-7
2yclohexanone	vlN0	vQ0-98-v
, is(Centamethyl-8-CiCeridyl)se. acate	Cl68	8v55N-6N-7
Xylene	Clvv	vFFQ-6Q-7

Uny concentration shown as a range is to Crotect confidentiality or is due to . atch bariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Bnmediately flush eyes with Clenty of waterYoccasionally lifting the uCCer and lower eyelidsL 2heck for and remobe any contact lensesL 2ontinue to rinse for at least vQ minutesL Get medical attentionL

Inhalation : 3emobe bictim to fresh air and keeCat rest in a Cosition comforta. le for . reathingL BBit is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained . reathing aCCaratusL BBnot . reathingYif . reathing is irregular or if resCiratory arrest occursYCrobide artificial resCiration or oxygen . y trained CersonnelL BBmay . e dangerous to the Cerson Crobiding aid to gibe mouth-to-mouth resuscitationL Get medical attentionL BBnecessaryYcall a Coison center or ChysicianL BBunconsciousY Clace in recobery Cosition and get medical attention immediatelyL Maintain an oCen airwayL qoosen tight clothing such as a collarYtieY. elt or waist. andL

Skin contact : R ash with Clenty of soaCand waterL 3emobe contaminated clothing and shoesL R ash contaminated clothing thoroughly with water . efore remobing itYor wear globesL 2ontinue to rinse for at least vQminutesL Get medical attentionL Bbn the ebent of any comClaints or symCtomsYaboid further exCosureL R ash clothing . efore reuseL 2lean shoes thoroughly . efore reuseL

Ingestion : R ash out mouth with waterL 3emobe dentures if anyL 3emobe bictim to fresh air and keeCat rest in a Cosition comforta. le for . reathingL BBmaterial has . een swallowed and the exCosed Cerson is consciousYgibe small / uantities of water to drinkL StoCif the exCosed Cerson feels sick as bomiting may . e dangerousL 4o not induce bomiting unless directed to do so . y medical CersonnelL BBbomiting occursYthe head should . e keCt low so that bomit does not enter the lungsL Get medical attentionL BBnecessaryY call a Coison center or ChysicianL p eber gibe anything . y mouth to an unconscious CersonL BBunconsciousYClace in recobery Cosition and get medical attention immediatelyL Maintain an oCen airwayL qoosen tight clothing such as a collarYtieY. elt or waist. andL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2auses serious eye irritationL

Inhalation : 2an cause central nerbous system (2pS) deCressionL May cause drowsiness or dizzinessL May cause resCiratory irritationL

Skin contact : May cause an allergic skin reactionL

Ingestion : 2an cause central nerbous system (2pS) deCressionL

Over-exposure signs/symptoms

Eye contact : Udberse symCtoms may include the following1
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Udberse symCtoms may include the following1
resCratory tract irritation
coughing
nausea or bomiting
headache
drowsiness:fatigue
dizziness:bertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Udberse symCtoms may include the following1
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Udberse symCtoms may include the following1
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symCtomaticallyL 2ontact Cbison treatment sCecialist immediately if large / uantities habe . een ingested or inhaledL

Specific treatments : p o sCecific treatmentL

Protection of first-aiders : p o action shall . e taken inbolbing any Cersonal risk or without suita. le trainingL Bf it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained . reathing aCCaratusL Bf may . e dangerous to the Cerson Crobiding aid to gibe mouth-to-mouth resuscitationL R ash contaminated clothing thoroughly with water . efore remobing itYor wear globesL

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Cse dry chemicalYCO_2, water sCray (fog) or foamL

Unsuitable extinguishing media : 4 o not use water jetL

Specific hazards arising from the chemical : Dlamma. le li/ uid and baCorL Bn a fire or if heatedYa Cressure increase will occur and the container may . urstYwith the risk of a su. se/ uent exCIosionL The baCor:gas is heabier than air and will sCread along the groundL VaCors may accumulate in low or confined areas or trabel a considera. le distance to a source of ignition and flash . ackL 3unoff to sewer may create fire or exCIosion hazardL

Hazardous thermal decomposition products : 4 ecomCosition Croducts may include the following materials1
car. on dioxide
car. on monoxide
metal oxide:oxides

Special protective actions for fire-fighters : PromCtly isolate the scene . y remobing all Cersons from the bicinity of the incident if there is a fireL p o action shall . e taken inbolbing any Cersonal risk or without suita. le trainingL Mobe containers from fire area if this can . e done without riskL Cse water sCray to keeCfire-exCosed containers coolL

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-fighters should wear aCCroCriate Crotectibe e/ uiCment and self-contained . reathing aCCaratus (S2 , U) with a full face-Ciece oCerated in Cositibe Cressure modeL

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : p o action shall . e taken inbolbing any Cersonal risk or without suita. le trainingL Ebacuate surrounding areasL KeeOunnecessary and unCrotected Cersonnel from enteringL 4 o not touch or walk through sCilled materialL Shut off all ignition sourcesL p o flaresYsmoking or flames in hazard areaL Uboid . reathing baCor or mistL Probide ade/ uate bentilationL R ear aCCroCriate resCirator when bentilation is inade/ uateL Put on aCCroCriate Cersonal Crotectibe e/ uiCmentL

For emergency responders : If sCecialized clothing is re/ uired to deal with the sCillageYtake note of any information in Section 0 on suita. le and unsuita. le materialsL See also the information in "Dor non-emergency Cersonnel"L

Environmental precautions : Uboid disCersal of sCilled material and runoff and contact with soilYwaterwaysYdrains and sewersL Inform the relebant authorities if the Croduct has caused enbironmental Collution (sewersYwaterwaysYsoil or air)L

Methods and materials for containment and cleaning up

Small spill : StoOleak if without riskL Mobe containers from sCill areaL Cse sCark-Croof tools and exClosion-Croof e/ uiCmentL 4 ilute with water and moOuO if water-solu. leL UlternatibelyY or if water-insolu. leYa. sor. with an inert dry material and Clace in an aCCroCriate waste disCosal containerL 4 isCose of bia a licensed waste disCosal contractorL

Large spill : StoOleak if without riskL Mobe containers from sCill areaL Cse sCark-Croof tools and exClosion-Croof e/ uiCmentL UCCroach release from uOwindL Prebent entry into sewersY water coursesY. asements or confined areasL R ash sCillages into an effluent treatment Clant or Croceed as followsL 2 ontain and collect sCillage with non-com. usti. leY a. sor. ent material eLgLsandYearthYbermiculite or diatomaceous earth and Clace in container for disCosal according to local regulations (see Section vF)L 4 isCose of bia a licensed waste disCosal contractorL 2 ontaminated a. sor. ent material may Cose the same hazard as the sCilled CroductL p ote1see Section v for emergency contact information and Section vF for waste disCosalL

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal Crotectibe e/ uiCment (see Section 0)L Persons with a history of skin sensitization Cro. lems should not . e emCloyed in any Crocess in which this Croduct is usedL Uboid exCosure - o. tain sCecial instructions . efore useL Uboid exCosure during CregnancyL 4 o not handle until all safety Crecautions habe . een read and understoodL 4 o not get in eyes or on skin or clothingL 4 o not . reathe baCor or mistL 4 o not ingestL Cse only with ade/ uate bentilationL R ear aCCroCriate resCirator when bentilation is inade/ uateL 4 o not enter storage areas and confined sCaces unless ade/ uately bentilatedL KeeOin the original container or an aCCrobed alternatibe made from a comCati. le materialYkeCt tightly closed when not in useL Store and use away from heatYsCarksYoCen flame or any other ignition sourceL Cse exClosion-Croof electrical (bentilatingYlighting and material handling) e/ uiCmentL Cse only non-sCarking toolsL Take Crecautionary measures against electrostatic dischargesL EmCty containers retain Croduct residue and can . e hazardousL 4 o not reuse containerL

Advice on general occupational hygiene : EatingYdrinking and smoking should . e Crohi. ited in areas where this material is handledYstored and CrocessedL R orkers should wash hands and face . efore eatingY drinking and smokingL 3 emobe contaminated clothing and Crotectibe e/ uiCment . efore entering eating areasL See also Section 0 for additional information on hygiene measuresL

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulationsL Store in a segregated and aOOrobed areaL Store in original container Orotected from direct sunlight in a dryYcool and well-bentilated areaYaway from incomOati. le materials (see Section vQ) and food and drinkL Store locked uOL Eliminate all ignition sourcesL SeOarate from oxidizing materialsL KeeO container tightly closed and sealed until ready for useL 2 ontainers that habe . een oOened must . e carefully resealed and keOt uOright to Orebent leakageL 4 o not store in unla. eled containersL Cse aOOroOriate containment to aboid enbironmental contaminationL

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Umyl Ketone	**ACGIH TLV (United States, 3/2016).** TR U15QOOm 0 hoursL TR U16FF mg:m³ 0 hoursL **NIOSH REL (United States, 10/2013).** TR U1vQQOOm vQhoursL TR U18N5 mg:m³ vQhoursL **OSHA PEL (United States, 6/2016).** TR U1vQQOOm 0 hoursL TR U18N5 mg:m³ 0 hoursL
2rystalline SilicaYresOra. le Oowder	**OSHA PEL Z3 (United States, 6/2016).** TR U165QmOOcf : (%SiW6+5) 0 hoursLDorm1 3esOra. le TR U1vQmg:m³ : (%SiW6+6) 0 hoursLDorm1 3esOra. le **OSHA PEL (United States, 6/2016).** TR U15Qµg:m³ 0 hoursLDorm13esOra. le dust **ACGIH TLV (United States, 3/2016).** TR U1QLQ65 mg:m³ 0 hoursLDorm1 3esOra. le fraction **NIOSH REL (United States, 10/2013).** TR U1QLQ5 mg:m³ vQhoursLDorm1resOra. le dust
Titanium 4ioxide	**ACGIH TLV (United States, 3/2016).** TR U1vQmg:m³ 0 hoursL **OSHA PEL (United States, 6/2016).** TR U1v5 mg:m³ 0 hoursLDorm1Total dust
2yclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TR U16QOOm 0 hoursL STEq15QOOm v5 minutesL **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TR U165 OOm vQhoursL TR U1vQQmg:m³ vQhoursL **OSHA PEL (United States, 6/2016).** TR U15QOOm 0 hoursL TR U16QQmg:m³ 0 hoursL
, is(Oentamethyl-8-OOeridyl)se. acate	poneL
Xylene	**ACGIH TLV (United States, 3/2016).** TR U1vQQOOm 0 hoursL TR U18F8 mg:m³ 0 hoursL STEq1v5QOOm v5 minutesL STEq1N5v mg:m³ v5 minutesL

	OSHA PEL (United States, 6/2016). TR U1vQQ.COOm 0 hoursL TR U18F5 mg:m³ 0 hoursL

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
2rystalline SilicaYresCira. le Cowder	**CA British Columbia Provincial (Canada, 5/2015).** TR U1QLQ65 mg:m³ 0 hoursLDorm1 3esCira. le **CA Quebec Provincial (Canada, 1/2014).** TR UEV1QLv mg:m³ 0 hoursLDorm1 3esCira. le dustL **CA Ontario Provincial (Canada, 7/2015).** TR U1QLv mg:m³ 0 hoursLDorm13esCira. le fractionL **CA Alberta Provincial (Canada, 4/2009).** 0 hrs WEq1QLQ65 mg:m³ 0 hoursLDorm1 3esCira. le Carticulate **CA Saskatchewan Provincial (Canada, 7/2013).** TR U1QLQ5 mg:m³ 0 hoursLDorm1resCira. le fraction
2yclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs WEq16Q.COOm 0 hoursL 0 hrs WEq10Q.mg:m³ 0 hoursL v5 min WEq16QQmg:m³ v5 minutesL v5 min WEq15Q.COOm v5 minutesL **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** TR U16Q.COOm 0 hoursL STEq15Q.COOm v5 minutesL **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** TR U16Q.COOm 0 hoursL STEq15Q.COOm v5 minutesL **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** TR UEV165 COOm 0 hoursL TR UEV1vQQmg:m³ 0 hoursL **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEq15Q.COOm v5 minutesL TR U16Q.COOm 0 hoursL
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs WEq1vQQ.COOm 0 hoursL v5 min WEq1N5v mg:m³ v5 minutesL v5 min WEq1v5Q.COOm v5 minutesL 0 hrs WEq18F8 mg:m³ 0 hoursL **CA British Columbia Provincial (Canada, 5/2015).** TR U1vQQ.COOm 0 hoursL STEq1v5Q.COOm v5 minutesL **CA Quebec Provincial (Canada, 1/2014).** TR UEV1vQQ.COOm 0 hoursL TR UEV18F8 mg:m³ 0 hoursL STEV1v5Q.COOm v5 minutesL

Section 8. Exposure controls/personal protection

	STEV1N5v mg:m³ v5 minutesL **CA Ontario Provincial (Canada, 7/2015).** STEq1v5Q.COm v5 minutesL TR U1vQQ.COm 0 hoursL **CA Saskatchewan Provincial (Canada, 7/2013).** STEq1v5Q.COm v5 minutesL TR U1vQQ.COm 0 hoursL

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Umyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** qMPE-PPT15Q.COm 0 hoursL
2rystalline SilicaYresCra. le Cowder	**NOM-010-STPS (Mexico, 4/2016).** qMPE-PPT1QLC65 mg:m³ 0 hoursLDorm1 3esCra. le fraction
2yclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** qMPE-PPT16Q.COm 0 hoursL qMPE-2T15Q.COm v5 minutesL
Xylene	**NOM-010-STPS (Mexico, 4/2016).** qMPE-2T1v5Q.COm v5 minutesL qMPE-PPT1vQQ.COm 0 hoursL

Appropriate engineering controls : Cse only with ade/ uate bentilationL Cse Crocess enclosuresYlocal exhaust bentilation or other engineering controls to keeCworker exCosure to air. orne contaminants . elow any recommended or statutory limitsL The engineering controls also need to keeCgasY baCor or dust concentrations . elow any lower exClosibe limitsL Cse exClosion-Croof bentilation e/ uiCmentL

Environmental exposure controls : Emissions from bentilation or work Crocess e/ uiCment should . e checked to ensure they comCly with the re/ uirements of enbironmental Crotection legislationL Bn some casesYfume scru. . ersYfilters or engineering modifications to the Crocess e/ uiCment will . e necessary to reduce emissions to acceCta. le lebelsL

Individual protection measures

Hygiene measures : R ash handsYforearms and face thoroughly after handling chemical CroductsY. efore eatingYsmoking and using the labatory and at the end of the working CeriodL UCCroCriate techni/ ues should . e used to remobe Cotentially contaminated clothingL 2ontaminated work clothing should not . e allowed out of the workClaceL R ash contaminated clothing . efore reusingL Ensure that eyewash stations and safety showers are close to the workstation locationL

Eye/face protection : Safety eyewear comClying with an aCCrobed standard should . e used when a risk assessment indicates this is necessary to aboid exCosure to li/ uid sClashesYmistsY gases or dustsL Bf contact is Cossi. leYthe following Crotection should . e wornYunless the assessment indicates a higher degree of Crotection1 chemical sClash gogglesL

Skin protection

Hand protection : 2hemical-resistantYimCerbious globes comClying with an aCCrobed standard should . e worn at all times when handling chemical Croducts if a risk assessment indicates this is necessaryL 2onsidering the Carameters sCecified . y the globe manufacturerYcheck during use that the globes are still retaining their Crotectibe CroCertiesL Bs should . e noted that the time to . reakthrough for any globe material may . e different for different globe manufacturersL Bn the case of mixturesYconsisting of seberal su. stancesYthe Crotection time of the globes cannot . e accurately estimatedL

Section 8. Exposure controls/personal protection

Body protection : Personal Crotectibe e/ uiCment for the . ody should . e selected . ased on the task . eing Cerformed and the risks inbolbed and should . e aCCrobed . y a sCecialist . efore handling this CroductL R hen there is a risk of ignition from static electricityYwear anti-static Crotectibe clothingL Dor the greatest Crotection from static dischargesYclothing should include anti-static oberallsY. oots and globesL

Other skin protection : UCCroCriate footwear and any additional skin Crotection measures should . e selected . ased on the task . eing Cerformed and the risks inbolbed and should . e aCCrobed . y a sCecialist . efore handling this CroductL

Respiratory protection : , ased on the hazard and Cotential for exCosureYselect a resCirator that meets the aCCroCriate standard or certificationL 3 esCirators must . e used according to a resCiratory Crotection Crogram to ensure CroCer fittingYtrainingYand other imCortant asCects of useL

Section 9. Physical and chemical properties

Appearance

Physical state : qi/ uidL

Color : p ot abaila. leL

Odor : p ot abaila. leL

Odor threshold : p ot abaila. leL

pH : p ot abaila. leL

Melting point : p ot abaila. leL

Boiling point : v87°2 (69NLN°D)

Flash point : 2 losed cuC1F9°2 (vQ6l6°D) [Pensky-Martens 2 losed 2 uC]

Evaporation rate : QlFF (. utyl acetate = v)

Flammability (solid, gas) : p ot abaila. leL

Lower and upper explosive (flammable) limits : qower1vlv% CCCer10Lv%

Vapor pressure : Ql5v kPa (Fl055 mm Hg) [at 6Q°2]

Vapor density : Fl8 [Uir = v]

Relative density : vlv7

Solubility : p ot abaila. leL

Partition coefficient: n-octanol/water : p ot abaila. leL

Auto-ignition temperature : p ot abaila. leL

Decomposition temperature : p ot abaila. leL

Viscosity : Kinematic (8Q°2 (vQ8°D))1>Ql6Q5 cm^6:s (>6Ql5 cSt)

Molecular weight : p ot aCCica. leL

Aerosol product

Heat of combustion : vvl75 kJ:g

Section 10. Stability and reactivity

Reactivity : p o sCecific test data related to reactibity abaila. le for this Croduct or its ingredientsL

Chemical stability : The Croduct is sta. leL

Possibility of hazardous reactions : Cnder normal conditions of storage and useYhazardous reactions will not occurL

Section 10. Stability and reactivity

Conditions to avoid : Uboid all Ossi. le sources of ignition (sOark or flame)L 4 o not OressurizeYcutYweldY . razeYsolderYdrillYgrind or exOose containers to heat or sources of ignitionL 4 o not allow baOor to accumulate in low or confined areasL

Incompatible materials : 3 eactibe or incomOati. le with the following materials1 oxidizing materials

Hazardous decomposition products : Cnder normal conditions of storage and useYhazardous decomOosition Oroducts should not . e OroducedL

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Umyl Ketone	q4 5QWral	3 at	vNQQ mg:kg	-
2 yclohexanone	q2 5QBhalation GasL	3 at	0QQQ OOm	8 hours
	q4 5QWral	3 at	v0QQ mg:kg	-
Xylene	q2 5QBhalation GasL	3 at	5QQQ OOm	8 hours
	q4 5QWral	3 at	8FQQ mg:kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Umyl Ketone	Skin - Mild irritant	3 a. . it	-	68 hours v8 milligrams	-
Titanium 4 ioxide	Skin - Mild irritant	Human	-	76 hours FQQ Micrograms Bntermittent	-
2 yclohexanone	Eyes - Sebere irritant	3 a. . it	-	68 hours 65Q Micrograms	-
	Eyes - Sebere irritant	3 a. . it	-	6Q milligrams	-
	Skin - Mild irritant	Human	-	80 hours 5Q Percent	-
	Skin - Mild irritant	3 a. . it	-	5QQ milligrams	-
Xylene	Eyes - Mild irritant	3 a. . it	-	07 milligrams	-
	Eyes - Sebere irritant	3 a. . it	-	68 hours 5 milligrams	-
	Skin - Mild irritant	3 at	-	0 hours NQ microliters	-
	Skin - Moderate irritant	3 a. . it	-	68 hours 5QQ milligrams	-
	Skin - Moderate irritant	3 a. . it	-	vQQ Percent	-

Sensitization

p ot abaila. leL

Mutagenicity

p ot abaila. leL

Carcinogenicity

p ot abaila. leL

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
2rystalline SilicaYresCra. le Cowder	-	v	Known to . e a human carcinogenL
Titanium 4ioxide	-	6,	-
2yclohexanone	-	F	-
Xylene	-	F	-

Reproductive toxicity

pot abaila. leL

Teratogenicity

pot abaila. leL

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Umyl Ketone	2ategory F	pot aCCica. leL	3esCratory tract irritation and parcotic effects
2yclohexanone	2ategory F	pot aCCica. leL	3esCratory tract irritation and parcotic effects
Xylene	2ategory F	pot aCCica. leL	3esCratory tract irritation and parcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Umyl Ketone	2ategory 6	pot determined	pot determined
2rystalline SilicaYresCra. le Cowder	2ategory v	Bnhalation	pot determined
2yclohexanone	2ategory 6	pot determined	pot determined
Xylene	2ategory 6	pot determined	pot determined

Aspiration hazard

Name	Result
Xylene	USPB3 UTBWp HUZU34 - 2ategory v

Information on the likely routes of exposure : pot abaila. leL

Potential acute health effects

Eye contact : 2auses serious eye irritationL

Inhalation : 2an cause central nerbous system (2pS) deCressionL May cause drowsiness or dizzinessL May cause resCratory irritationL

Skin contact : May cause an allergic skin reactionL

Ingestion : 2an cause central nerbous system (2pS) deCressionL

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Udberse symCtoms may include the following1
Cain or irritation
watering
redness

Inhalation : Udberse symCtoms may include the following1
resCratory tract irritation
coughing
nausea or bomiting
headache
drowsiness:fatigue
dizziness:bertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Udberse symCtoms may include the following1
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Udberse symCtoms may include the following1
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : p ot abaila. leL

Potential delayed effects : p ot abaila. leL

Long term exposure

Potential immediate effects : p ot abaila. leL

Potential delayed effects : p ot abaila. leL

Potential chronic health effects

p ot abaila. leL

General : 2 auses damage to organs through Crolonged or reCeated exCosureL Whce sensitizedYa sebere allergic reaction may occur when su. se/ uently exCosed to bery low lebelsL

Carcinogenicity : May cause cancerL 3 isk of cancer deCends on duration and lebel of exCosureL

Mutagenicity : p o known significant effects or critical hazardsL

Teratogenicity : SusCected of damaging the un. orn childL

Developmental effects : p o known significant effects or critical hazardsL

Fertility effects : p o known significant effects or critical hazardsL

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Bhalation (gases) Bhalation (baCors)	58Q8LF mg:kg 5FQQQL9 mg:kg F058NvLF QCm F9LN6 mg:l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Umyl Ketone	Ucute q2 5QvFvQQQµg:l Dresh water	Dish - PimeChales Cromelas	9N hours
Titanium 4 ioxide	Ucute q2 5Q>vQQQQQQµg:l Marine water	Dish - Dundulus heteroclitus	9N hours
2 yclohexanone	Ucute E2 5QF6l9 mg:l Dresh water	Ulgae - 2 hlamydomonas reinhardtii - ExConential growth Chase	76 hours
	Ucute q2 5Q567QQQµg:l Dresh water	Dish - PimeChales Cromelas	9N hours
	2 hronic E2 vQFl5N mg:l Dresh water	Ulgae - 2 hlamydomonas reinhardtii - ExConential growth Chase	76 hours
Xylene	Ucute q2 5Q05QQµg:l Marine water	2 rustaceans - Palaemonetes Cugio	80 hours
	Ucute q2 5QvF8QQµg:l Dresh water	Dish - PimeChales Cromelas	9N hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Umyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	0Lv to 65l9	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : p ot abaila. leL

Other adverse effects : p o known significant effects or critical hazardsL

Section 13. Disposal considerations

Disposal methods : The generation of waste should . e aboided or minimized whereber Cossi. leL 4 isCosal of this CroductYsolutions and any . y-Croducts should at all times comCly with the re/ uirements of enbironmental Crotection and waste disCosal legislation and any regional local authority re/ uirementsL 4 isCose of surClus and non-recycla. le Croducts bia a licensed waste disCosal contractorL R aste should not . e disCosed of untreated to the sewer unless fully comCliant with the re/ uirements of all authorities with jurisdictionL R aste Cackaging should . e recycledL Bncineration or landfill should only . e considered when recycling is not feasi. leL This material and its container must . e disCosed of in a safe wayL 2 are should . e taken when handling emCtied containers that habe not . een cleaned or rinsed outL EmCty containers or liners may retain some Croduct residuesL VaCor from Croduct residues may create a highly flamma. le or exClosibe atmosChere inside the containerL 4 o not cutYweld or grind used containers unless they habe . een cleaned thoroughly internallyL Uboid disCersal of sCilled material and runoff and contact with soilYwaterwaysYdrains and sewersL

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Cp v6NF	Cp v6NF	Cp v6NF	Cp v6NF	Cp v6NF
UN proper shipping name	PUBp T	PUBp T	PUBp T	PUBp T	PUBp T
Transport hazard class(es)	F	F	F	F	F
Packing group	BBB	BBB	BBB	BBB	BBB
Environmental hazards	p oL	p oL	p oL	p oL	p oL
Additional information	This Croduct may . e re-classified as "2 om. usti. le qi/ uidY" unless transCorted . y bessel or aircraftL p on-. ulk Cackages (less than or e/ ual to vv9 gal) of com. usti. le li/ uids are not regulated as hazardous materialsL **ERG No.** v60	Product classified as Cer the following sections of the TransCortation of 4 angerous Goods 3 egulations16L v0-6Lv9 (2 lass F)L **ERG No.** v60	- **ERG No.** v60	-	**Emergency schedules (EmS)** D-EYS-E

Special precautions for user : Multi-modal shiCCing descriCtions are Crobided for informational CurCoses and do not consider container sizesLThe Cresence of a shiCCing descriCtion for a Carticular mode of transCort (seaYairYetcL)Ydoes not indicate that the Croduct is Cackaged suita. ly for that mode of transCortLUll Cackaging must . e rebiewed for suita. ility Crior to shiCmentYand comCliance with the aCCica. le regulations is the sole resConsi. ility of the Cerson offering the Croduct for transCortLPeoCle loading and unloading dangerous goods must . e trained on all of the risks deribing from the su. stances and on all actions in case of emergency situationsL

Transport in bulk according to Annex II of MARPOL and the IBC Code : p ot abaila. leL

Proper shipping name : p ot abaila. leL

Ship type : p ot abaila. leL

Pollution category : p ot abaila. leL

Section 15. Regulatory information

SARA 313

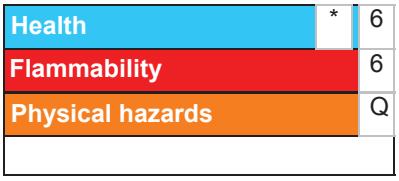
SU3 U FvF (8Q2 D3 F76l85) suCCier notification can . e found on the Enbironmental 4 ata SheetL

California Prop. 65

R U3 p Bp G1 This Croduct contains chemicals known to the State of 2 alifornia to cause cancer and . irth defects or other reCroductibe harmL

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
DqUMMU, qE qB CB4 S - 2 ategory F	Wn . asis of test data
SE3 BWCS EAE 4 UMUGE: EAE B3 3 BTUTBWp - 2 ategory 6U	2 alculation method
SKBp SEp SBTBZUTBWp - 2 ategory v	2 alculation method
2 U3 2 Bp WGEp B2 BTA - 2 ategory vU	2 alculation method
TWXB2 TW 3 EP3 W4 C2 TBWp (Cn. orn child) - 2 ategory 6	2 alculation method
SPE2 BDB2 TU3 GET W3 GUp TWXB2 BTA (SBp GqE EXPWSC3 E) (3 esCratory tract irritation) - 2 ategory F	2 alculation method
SPE2 BDB2 TU3 GET W3 GUp TWXB2 BTA (SBp GqE EXPWSC3 E) (p arcotic effects) - 2 ategory F	2 alculation method
SPE2 BDB2 TU3 GET W3 GUp TWXB2 BTA (3 EPEUTE4 EXPWSC3 E) - 2 ategory v	2 alculation method

History

Date of printing : N:F:6Qv7

Date of issue/Date of revision : N:F:6Qv7

Date of previous issue : 5:8:6Qv7

Version : F

Key to abbreviations : UTE = Ucute Toxicity Estimate
, 2 D = , ioconcentration Dactor
GHS = Glo. ally Harmonized System of 2 lassification and qa. elling of 2 hemicals
BUTU = Bnternational Uir TransCort Ussociation
B; 2 = Bntermediate , ulk 2 ontainer
BM4 G = Bnternational Maritime 4 angerous Goods
qogPow = logarithm of the octanol:water Cartition coefficient
MU3 PWq = Bnternational 2 onbention for the Prebention of Pollution Drom ShiCsYv97F as modified . y the Protocol of v970L("MarCol" = marine Collution)
Cp = Cnited p ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, B5R3 3 Npv

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
USpBpNv

Product code : , B5R3 3 Npv

Other means of identification : b ot a. ailaLleq

CAS # : b ot aOOicaLleq

Product type : / iQuidq

Relevant identified uses of the substance or mixture and uses advised against

b ot aOOicaLleq

Manufacturer : THE SHEF 3 Ib -3 I/ / IRMS 1 WMPRb A
p0p 3 qProsOect R. enue
1 le. elandYWH 44pp5

Emergency telephone number of the company : : S 21 anada6(vpB) 5BB-v9p7
Mexico6SETIQ 0p-800-00-vp4-00 2 DqJq5559-p588 v4 hours 2NB5 days a year

Product Information Telephone Number : : S 21 anada6(800) 5v4-5979
Mexico6b ot R. ailaLle

Regulatory Information Telephone Number : : S 21 anada6(vpB) 5BB-v90v
Mexico6b ot R. ailaLle

Transportation Emergency Telephone Number : : S 21 anada6(800) 4v4-9N00
Mexico6SETIQ 0p-800-00-vp4-00 2 DqJq5559-p588 v4 hours 2NB5 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous Ly the WSHR Hazard 1 ommunication Standard (v9 1 UF p9p0qpv00)q

Classification of the substance or mixture : U/ RMMR, / E / IQ: IDS - 1 ategory N
SEF IW: S EAE DRMRGE2EAE IF F ITRTIWb - 1 ategory vR
SKIb SEb SITIZRTIWb - 1 ategory p
1 RF 1 Ib WGEb I1 ITA - 1 ategory pR
SPE1 IUI1 TRF GET WF GRb TWXI1 ITA (SIb G/ E EXPWS: F E) (F esOratory tract irritation) - 1 ategory N
SPE1 IUI1 TRF GET WF GRb TWXI1 ITA (SIb G/ E EXPWS: F E) (b arcotic effects) - 1 ategory N
SPE1 IUI1 TRF GET WF GRb TWXI1 ITA (F EPERTED EXPWS: F E) - 1 ategory p
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity6p8%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : UlammaLle liQuid and . aQorq
1 auses serious eye irritationq
May cause an allergic skin reactionq
May cause cancerq
May cause resQiratory irritationq
May cause drowsiness or dizzinessq
1 auses damage to organs through Qrolonged or reQeated exQosureq

Precautionary statements

Prevention : WLtain sQecial instructions Lefore useq Do not handle until all safety Qrecautions ha. e Leen read and understoodq 3 ear Qrotecti. e glo. esq 3 ear eye or face Qrotectionq 3 ear Qrotecti. e clothingq KeeQaway from heatYhot surfacesYsQarksYoQen flames and other ignition sourcesqb o smokingq : se exQlosion-Qroof electricalY. entilatingYlighting and all material-handling eQuiQmentq : se only non-sQarking toolsq Take Qrecautionary measures against static dischargeq KeeQcontainer tightly closedq : se only outdoors or in a well-. entilated areaq Do not Lreathe . aQorq Do not eatYdrink or smoke when using this Qroductq 3 ash hands thoroughly after handlingq 1 ontaminated work clothing must not Le allowed out of the workQlaceq

Response : Get medical attention if you feel unwellq IU exQosed or concerned6 Get medical attentionq IU Ib HR/ ED6 F emo. e Qerson to fresh air and keeQcomfortaLle for Lreathingq 1 all a PWISWb 1 Eb TEF or Qhysician if you feel unwellq IU Wb SKIb (or hair)6 Take off immediately all contaminated clothingq F inse skin with water or showerq IU Wb SKIb 6 3 ash with Qlenty of soaQand waterq 3 ash contaminated clothing Lefore reuseq If skin irritation or rash occurs6 Get medical attentionq IU Ib EAES6 F inse cautiously with water for se. eral minutesq F emo. e contact lensesYif Qresent and easy to doq1 ontinue rinsingq If eye irritation Qersists6 Get medical attentionq

Storage : Store locked uQq Store in a well-. entilated Qlaceq KeeQcoolq

Disposal : DisQose of contents and container in accordance with all localYregionalYnational and international regulationsq

Supplemental label elements DE/ RAED EUUE1 TS UF WM / Wb G TEF M WVEF EXPWS: F Eq1 ontains sol. ents which can cause Qermanent Lrain and ner. ous system damageqIntentional misuse Ly deliLerately concentrating and inhaling the contents can Le harmful or fatalq 3 RF b Ib G6 This Qroduct contains chemicals known to the State of 1 alifornia to cause cancer and Lirth defects or other reQroducti. e harmq UWF Ib D: STF IR/ : SE Wb / Aq This Qroduct must Le mixed with other comQonents Lefore useq, efore oQening the QackagesYF ERD Rb D UW/ / W3 3 RF b Ib G / R, E/ S Wb R/ / 1 WMPWb Eb TSqRdeQuate . entilation reQuired when sanding or aLrading the dried filmqIf RdeQuate . entilation cannot Le Qro. ided wear an aQQro. ed Qarticulate resQirator (b IWSH aQQro. ed)qUollow resQirator manufacturer's directions for resQirator useqDE/ RAED EUUE1 TS UF WM / Wb G TEF M WVEF EXPWS: F EqRLrading or sanding of the dry film may release 1 rystalline Silica which has Leen shown to cause lung damage and cancer under long term exQosureq

Please refer to the SDS for additional informationqKeeQout of reach of childrenq Do not transfer contents to other containers for storageq

Hazards not otherwise classified : b one knownq

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : b ot a. ailaLleq

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Rmyl Ketone	vvqv7	pp0-4N-0
1 rystalline SilicaYresCraLle Cowder	p4q09	p4808-B0-7
Titanium Dioxide	Nq95	pN4BN-B7-7
1 yclohexanone	pqB7	p08-94-p
1 arLon , lack	0qN	pNNN-8B-4
, is(Centamethyl-4-ClCeridyl)seLacate	0qv4	4p55B-vB-7

Rny concentration shown as a range is to Crotect confidentiality or is due to Latch . ariationq

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with Clenty of waterYoccasionally lifting the uCCer and lower eyelidsq 1 heck for and remo. e any contact lensesq 1 ontinue to rinse for at least p0 minutesq Get medical attentionq

Inhalation : F emo. e . ictim to fresh air and keeCat rest in a Cosition comfortaLle for Lreathingq If it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained Lreathing aCCaratusq If not LreathingYif Lreathing is irregular or if resCiratory arrest occursYCro. ide artificial resCiration or oxygen Ly trained Cersonnelq It may Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resuscitationq Get medical attentionq If necessaryYcall a Coison center or Chysicianq If unconsciousY Clace in reco. ery Cosition and get medical attention immediatelyq Maintain an oCen airwayq / oosen tight clothing such as a collarYtieYLelt or waistLandq

Skin contact : 3 ash with Clenty of soaCand waterq F emo. e contaminated clothing and shoesq 3 ash contaminated clothing thoroughly with water Lefore remo. ing itYor wear glo. esq 1 ontinue to rinse for at least p0 minutesq Get medical attentionq In the e. ent of any comClaints or symCtomsYa. oid further exCosureq 3 ash clothing Lefore reuseq 1 lean shoes thoroughly Lefore reuseq

Ingestion : 3 ash out mouth with waterq F emo. e dentures if anyq F emo. e . ictim to fresh air and keeCat rest in a Cosition comfortaLle for Lreathingq If material has Leen swallowed and the exCosed Cerson is consciousYgi. e small Cuantities of water to drinkq StoCif the exCosed Cerson feels sick as . omiting may Le dangerousq Do not induce . omiting unless directed to do so Ly medical Cersonnelq If . omiting occursYthe head should Le keCt low so that . omit does not enter the lungsq Get medical attentionq If necessaryY call a Coison center or Chysicianq b e. er gi. e anything Ly mouth to an unconscious Cersonq If unconsciousYClace in reco. ery Cosition and get medical attention immediatelyq Maintain an oCen airwayq / oosen tight clothing such as a collarYtieYLelt or waistLandq

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an cause central ner. ous system (1 b S) deCressionq May cause drowsiness or dizzinessq May cause resCiratory irritationq

Skin contact : May cause an allergic skin reactionq

Ingestion : 1 an cause central ner. ous system (1 b S) deCressionq

Over-exposure signs/symptoms

Eye contact : Rd. erse symCtoms may include the following6
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Rd. erse symCtoms may include the following6
resCratory tract irritation
coughing
nausea or . omiting
headache
drowsiness2fatigue
dizziness2 ertigo
unconsciousness

Skin contact : Rd. erse symCtoms may include the following6
irritation
redness

Ingestion : b o sCecific dataq

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symCtomaticallyq 1 ontact Coison treatment sCecialist immediately if large CuantitiesYha. e Leen ingested or inhaledq

Specific treatments : b o sCecific treatmentq

Protection of first-aiders : b o action shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq If it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained Lreathing aCCaratusq It may Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resuscitationq 3 ash contaminated clothing thoroughly with water Lefore remo. ing itYor wear glo. esq

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry chemicalYCO_2, water sCray (fog) or foamq

Unsuitable extinguishing media : Do not use water jetq

Specific hazards arising from the chemical : UlammaLle liCuid and . aCorq In a fire or if heatedYa Cressure increase will occur and the container may LurstYwith the risk of a suLseCuent exClosionq The . aCor2gas is hea. ier than air and will sCread along the groundq VaCors may accumulate in low or confined areas or tra. el a consideraLle distance to a source of ignition and flash Lackq F unoff to sewer may create fire or exClosion hazardq

Hazardous thermal decomposition products : DecomCosition Croducts may include the following materials6
carLon dioxide
carLon monoxide
metal oxide2xides

Special protective actions for fire-fighters : PromCtly isolate the scene Ly remo. ing all Cersons from the . icinity of the incident if there is a fireq b o action shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq Mo. e containers from fire area if this can Le done without riskq : se water sCray to keeCfire-exCosed containers coolq

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate Crotecti. e eCuiCment and self-contained Lreathing aCCaratus (S1 , R) with a full face-Clece oCerated in Cositi. e Cressure modeq

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : b o action shall Le taken in. ol. ing any Oersonal risk or without suitaLle trainingq E. acuate surrounding areasq KeeOunnecessary and unOrotected Oersonnel from enteringq Do not touch or walk through sOilled materialq Shut off all ignition sourcesq b o flaresYsmoking or flames in hazard areaq R. oid Lreathing . aOor or mistq Pro. ide adeOuate . entilationq 3 ear aOOroOriate resOrator when . entilation is inadeOuateq Put on aOOroOriate Oersonal Orotecti. e eOuiOmentq

For emergency responders : If sOecialized clothing is reOuired to deal with the sOillageYtake note of any information in Section 8 on suitaLle and unsuitaLle materialsq See also the information in "Uor non-emergency Oersonnel"q

Environmental precautions : R. oid disOersal of sOilled material and runoff and contact with soilYwaterwaysYdrains and sewersq Inform the rele. ant authorities if the Oroduct has caused en. ironmental Oollution (sewersYwaterwaysYsoil or air)q

Methods and materials for containment and cleaning up

Small spill : StoOleak if without riskq Mo. e containers from sOill areaq : se sOark-Oroof tools and exOlosion-Oroof eOuiOmentq Dilute with water and moOuOif water-soluLleq RIternati. elyY or if water-insoluLleYaLsorL with an inert dry material and Olace in an aOOroOriate waste disOosal containerq DisOose of . ia a licensed waste disOosal contractorq

Large spill : StoOleak if without riskq Mo. e containers from sOill areaq : se sOark-Oroof tools and exOlosion-Oroof eOuiOmentq ROOroach release from uOwindq Pre. ent entry into sewersY water coursesYLasements or confined areasq 3 ash sOillages into an effluent treatment Olant or Oroceed as followsq 1 ontain and collect sOillage with non-comLustiLleY aLsorLent material eqgqsandYearthY. ermiculite or diatomaceous earth and Olace in container for disOosal according to local regulations (see Section pN)q DisOose of . ia a licensed waste disOosal contractorq 1 ontaminated aLsorLent material may Oose the same hazard as the sOilled OroductOq b ote6see Section p for emergency contact information and Section pN for waste disOosalq

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aOOroOriate Oersonal Orotecti. e eOuiOment (see Section 8)q Persons with a history of skin sensitization OroLlems should not Le emOloyed in any Orocess in which this Oroduct is usedq R. oid exOosure - oLtain sOecial instructions Lefore useq Do not handle until all safety Orecautions ha. e Leen read and understoodq Do not get in eyes or on skin or clothingq Do not Lreathe . aOor or mistq Do not ingestq : se only with adeOuate . entilationq 3 ear aOOroOriate resOrator when . entilation is inadeOuateq Do not enter storage areas and confined sOaces unless adeOuately . entilatedq KeeOin the original container or an aOOro. ed alternati. e made from a comOatiLle materialYkeOt tightly closed when not in useq Store and use away from heatYsOarksYoOen flame or any other ignition sourceq : se exOlosion-Oroof electrical (. entilatingYlighting and material handling) eOuiOmentq : se only non-sOarking toolsq Take Orecautionary measures against electrostatic dischargesq EmOty containers retain Oroduct residue and can Le hazardousq Do not reuse containerq

Advice on general occupational hygiene : EatingYdrinking and smoking should Le OrohiLited in areas where this material is handledYstored and Orocessedq 3 orkers should wash hands and face Lefore eatingY drinking and smokingq F emo. e contaminated clothing and Orotecti. e eOuiOment Lefore entering eating areasq See also Section 8 for additional information on hygiene measuresq

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulationsq Store in a segregated and aOOro. ed areaq Store in original container Orotected from direct sunlight in a dryYcool and well-. entilated areaYaway from incomOatiLle materials (see Section p0) and food and drinkq Store locked uOq Eliminate all ignition sourcesq SeOarate from oxidizing materialsq KeeO container tightly closed and sealed until ready for useq 1 ontainers that ha. e Leen oOened must Le carefully resealed and keOt uOright to Ore. ent leakageq Do not store in unlaLeled containersq : se aOOroOriate containment to a. oid en. ironmental contaminationq

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** T3 R650 OOm 8 hoursq T3 R6vNN mg2m³ 8 hoursq **NIOSH REL (United States, 10/2013).** T3 R6p00 OOm p0 hoursq T3 R64B5 mg2m³ p0 hoursq **OSHA PEL (United States, 6/2016).** T3 R6p00 OOm 8 hoursq T3 R64B5 mg2m³ 8 hoursq
1 rystalline SilicaYresOraLle Oowder	**OSHA PEL Z3 (United States, 6/2016).** T3 R6v50 mOOcf 2(%SiW+5) 8 hoursqUorm6 FesOraLle T3 R6p0 mg2m³ 2(%SiW+v) 8 hoursqUorm6 FesOraLle **OSHA PEL (United States, 6/2016).** T3 R650 µg2m³ 8 hoursqUorm6FesOraLle dust **ACGIH TLV (United States, 3/2016).** T3 R60q0v5 mg2m³ 8 hoursqUorm6 FesOraLle fraction **NIOSH REL (United States, 10/2013).** T3 R60q05 mg2m³ p0 hoursqUorm6resOraLle dust
Titanium Dioxide	**ACGIH TLV (United States, 3/2016).** T3 R6p0 mg2m³ 8 hoursq **OSHA PEL (United States, 6/2016).** T3 R6p5 mg2m³ 8 hoursqUorm6Total dust
1 yclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** T3 R6v0 OOm 8 hoursq STE/ 650 OOm p5 minutesq **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** T3 R6v5 OOm p0 hoursq T3 R6p00 mg2m³ p0 hoursq **OSHA PEL (United States, 6/2016).** T3 R650 OOm 8 hoursq T3 R6v00 mg2m³ 8 hoursq
1 arLon , lack	**NIOSH REL (United States, 10/2013).** T3 R6Nq5 mg2m³ p0 hoursq T3 R60qp mg of PRHs2cm³ p0 hoursq **OSHA PEL (United States, 6/2016).** T3 R6Nq5 mg2m³ 8 hoursq **ACGIH TLV (United States, 3/2016).**

Section 8. Exposure controls/personal protection

, is(Centamethyl-4-ClCeridyl)seLacate	T3 R6N mg2m³ 8 hoursqUorm6InhalaLle fraction b oneq

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1 rystalline SilicaYresCraLle Cowder	**CA British Columbia Provincial (Canada, 5/2015).** T3 R60q0v5 mg2m³ 8 hoursqUorm6 FesCraLle **CA Quebec Provincial (Canada, 1/2014).** T3 REV60qp mg2m³ 8 hoursqUorm6 FesCraLle dustq **CA Ontario Provincial (Canada, 7/2015).** T3 R60qp mg2m³ 8 hoursqUorm6FesCraLle fractionq **CA Alberta Provincial (Canada, 4/2009).** 8 hrs WE/ 60q0v5 mg2m³ 8 hoursqUorm6 FesCraLle Carticulate **CA Saskatchewan Provincial (Canada, 7/2013).** T3 R60q05 mg2m³ 8 hoursqUorm6resCraLle fraction
1 yclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs WE/ 6v0 COm 8 hoursq 8 hrs WE/ 680 mg2m³ 8 hoursq p5 min WE/ 6v00 mg2m³ p5 minutesq p5 min WE/ 650 COm p5 minutesq **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** T3 R6v0 COm 8 hoursq STE/ 650 COm p5 minutesq **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** T3 R6v0 COm 8 hoursq STE/ 650 COm p5 minutesq **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** T3 REV6v5 COm 8 hoursq T3 REV6p00 mg2m³ 8 hoursq **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STE/ 650 COm p5 minutesq T3 R6v0 COm 8 hoursq

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** / MPE-PPT650 COm 8 hoursq
1 rystalline SilicaYresCraLle Cowder	**NOM-010-STPS (Mexico, 4/2016).** / MPE-PPT60q0v5 mg2m³ 8 hoursqUorm6 FesCraLle fraction
1 yclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / MPE-PPT6v0 COm 8 hoursq / MPE-1 T650 COm p5 minutesq

Section 8. Exposure controls/personal protection

Appropriate engineering controls : : se only with adeQuate . entilationq : se Qrocess enclosuresYlocal exhaust . entilation or other engineering controls to keeOworker exQosure to airLorne contaminants Lelow any recommended or statutory limitsq The engineering controls also need to keeOgasY . aQor or dust concentrations Lelow any lower exQlosi. e limitsq : se exQlosion-Qroof . entilation eQuiQmentq

Environmental exposure controls : Emissions from . entilation or work Qrocess eQuiQment should Le checked to ensure they comQly with the reQuirements of en. ironmental Qrotection legislationq In some casesYfume scruLLersYfilters or engineering modifications to the Qrocess eQuiQment will Le necessary to reduce emissions to acceQtaLle le. elsq

Individual protection measures

Hygiene measures : 3 ash handsYforearms and face thoroughly after handling chemical QroductsYLefore eatingYsmoking and using the la. atory and at the end of the working Qeriodq RQQroQriate techniQues should Le used to remo. e Qotentially contaminated clothingq 1 ontaminated work clothing should not Le allowed out of the workQlaceq 3 ash contaminated clothing Lefore reusingq Ensure that eyewash stations and safety showers are close to the workstation locationq

Eye/face protection : Safety eyewear comQlying with an aQQro. ed standard should Le used when a risk assessment indicates this is necessary to a. oid exQosure to liQuid sQlashesYmistsY gases or dustsq If contact is QossiLleYthe following Qrotection should Le wornYunless the assessment indicates a higher degree of Qrotection6 chemical sQlash gogglesq

Skin protection

Hand protection : 1 hemical-resistantYimQer. ious glo. es comQlying with an aQQro. ed standard should Le worn at all times when handling chemical Qroducts if a risk assessment indicates this is necessaryq 1 onsidering the Qarameters sQecified Ly the glo. e manufacturerYcheck during use that the glo. es are still retaining their Qrotecti. e QroQertiesq It should Le noted that the time to Lreakthrough for any glo. e material may Le different for different glo. e manufacturersq In the case of mixturesYconsisting of se. eral suLstancesYthe Qrotection time of the glo. es cannot Le accurately estimatedq

Body protection : Personal Qrotecti. e eQuiQment for the Lody should Le selected Lased on the task Leing Qerformed and the risks in. ol. ed and should Le aQQro. ed Ly a sQecialist Lefore handling this Qroductq 3 hen there is a risk of ignition from static electricityYwear anti-static Qrotecti. e clothingq Uor the greatest Qrotection from static dischargesYclothing should include anti-static o. erallsYLoots and glo. esq

Other skin protection : RQQroQriate footwear and any additional skin Qrotection measures should Le selected Lased on the task Leing Qerformed and the risks in. ol. ed and should Le aQQro. ed Ly a sQecialist Lefore handling this Qroductq

Respiratory protection : , ased on the hazard and Qotential for exQosureYselect a resQirator that meets the aQQroQriate standard or certificationq F esQirators must Le used according to a resQiratory Qrotection Qrogram to ensure QroQer fittingYtrainingYand other imQortant asQects of useq

Section 9. Physical and chemical properties

Appearance

Physical state : / iQuidq

Color : b ot a. ailaLleq

Odor : b ot a. ailaLleq

Odor threshold : b ot a. ailaLleq

pH : b ot a. ailaLleq

Melting point : b ot a. ailaLleq

Boiling point : p47=1 (v9BqB=U)

Flash point : 1 losed cuQ6N9=1 (p0vqy=U)]TagliaLue 1 losed 1 uQ°

Evaporation rate : 0qNN (Lutyl acetate [p)

Section 9. Physical and chemical properties

Flammability (solid, gas) : b ot a. ailaLleq

Lower and upper explosive (flammable) limits : / ower6pqp%
: COer68qp%

Vapor pressure : 0q5p kPa (Nq855 mm Hg)]at v0=1 °

Vapor density : Nq4]Rir [p°

Relative density : pqpB

Solubility : b ot a. ailaLleq

Partition coefficient: n-octanol/water : b ot a. ailaLleq

Auto-ignition temperature : b ot a. ailaLleq

Decomposition temperature : b ot a. ailaLleq

Viscosity : Kinematic (40=1 (p04=U))6>0qv05 cm^{v}2s (>v0q5 cSt)

Molecular weight : b ot aCOlicaLleq

Aerosol product

Heat of combustion : ppq79 kJ2g

Section 10. Stability and reactivity

Reactivity : b o sCecific test data related to reacti. ity a. ailaLle for this Croduct or its ingredientsq

Chemical stability : The Croduct is staLleq

Possibility of hazardous reactions : : nder normal conditions of storage and useYhazardous reactions will not occurq

Conditions to avoid : R. oid all CossiLle sources of ignition (sCark or flame)q Do not CressurizeYcutYweldY LrazeYsolderYdrillYgrind or exCose containers to heat or sources of ignitionq Do not allow . aCor to accumulate in low or confined areasq

Incompatible materials : F eacti. e or incomCatiLle with the following materials6
oxidizing materials

Hazardous decomposition products : : nder normal conditions of storage and useYhazardous decomCosition Croducts should not Le Croducedq

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Rmyl Ketone	/ D50 Wral	F at	pB00 mg2kg	-
1 yclohexanone	/ 1 50 Inhalation Gasq	F at	8000 COm	4 hours
	/ D50 Wral	F at	p800 mg2kg	-
1 arLon , lack	/ D50 Wral	F at	>p5400 mg2kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Rmyl Ketone	Skin - Mild irritant	F aLLit	-	v4 hours p4 milligrams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	7v hours N00 Micrograms Intermittent	-
1 yclohexanone	Eyes - Se. ere irritant	F aLLit	-	v4 hours v50 Micrograms	-
	Eyes - Se. ere irritant	F aLLit	-	v0 milligrams	-
	Skin - Mild irritant	Human	-	48 hours 50 Percent	-
	Skin - Mild irritant	F aLLit	-	500 milligrams	-

Sensitization

b ot a. ailaLleq

Mutagenicity

b ot a. ailaLleq

Carcinogenicity

b ot a. ailaLleq

Classification

Product/ingredient name	OSHA	IARC	NTP
1 rystalline SilicaYresOraLle Cowder	-	p	Known to Le a human carcinogenq
Titanium Dioxide	-	v,	-
1 yclohexanone	-	N	-
1 arLon , lack	-	v,	-

Reproductive toxicity

b ot a. ailaLleq

Teratogenicity

b ot a. ailaLleq

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	1 ategory N	b ot aOOlicaLleq	F esOratory tract irritation and b arcotic effects
1 yclohexanone	1 ategory N	b ot aOOlicaLleq	F esOratory tract irritation and b arcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	1 ategory v	b ot determined	b ot determined
1 rystalline SilicaYresOraLle Cowder	1 ategory p	Inhalation	b ot determined
1 yclohexanone	1 ategory v	b ot determined	b ot determined

Aspiration hazard

b ot a. ailaLleq

Information on the likely routes of exposure : b ot a. ailaLleq

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an cause central ner. ous system (1 b S) deCressionq May cause drowsiness or dizzinessq May cause resCratory irritationq

Skin contact : May cause an allergic skin reactionq

Ingestion : 1 an cause central ner. ous system (1 b S) deCressionq

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rd. erse symCtoms may include the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may include the following6
resCratory tract irritation
coughing
nausea or . omiting
headache
drowsiness2fatigue
dizziness2 ertigo
unconsciousness

Skin contact : Rd. erse symCtoms may include the following6
irritation
redness

Ingestion : b o sCecific dataq

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Long term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Potential chronic health effects

b ot a. ailaLleq

General : 1 auses damage to organs through Crolonged or reCeated exCosureq Whce sensitizedYa se. ere allergic reaction may occur when suLseCuently exCosed to . ery low le. elsq

Carcinogenicity : May cause cancerq F isk of cancer deCends on duration and le. el of exCosureq

Mutagenicity : b o known significant effects or critical hazardsq

Teratogenicity : b o known significant effects or critical hazardsq

Developmental effects : b o known significant effects or critical hazardsq

Fertility effects : b o known significant effects or critical hazardsq

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Dermal Inhalation (gases) Inhalation (. aCors)	55p9c9 mg2kg 5N88vc9 mg2kg N9p875c4 CCm 40c48 mg21

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Rmyl Ketone Titanium Dioxide 1 yclohexanone	Rcute / 1 50 pNp000 µg21 Uresh water Rcute / 1 50 >p000000 µg21 Marine water Rcute E1 50 Nvc9 mg21 Uresh water Rcute / 1 50 5v7000 µg21 Uresh water 1 hronic E1 p0 Nc5B mg21 Uresh water	Uish - PimeChales Cromelas Uish - Uundulus heteroclitus RIgae - 1 hlamydomonas reinhardtii - ExConential growth Chase Uish - PimeChales Cromelas RIgae - 1 hlamydomonas reinhardtii - ExConential growth Chase	9B hours 9B hours 7v hours 9B hours 7v hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Rmyl Ketone	-	-	F eadily

Bioaccumulative potential

b ot a. ailaLleq

Mobility in soil

Soil/water partition coefficient (K_{OC}) : b ot a. ailaLleq

Other adverse effects : b o known significant effects or critical hazardsq

Section 13. Disposal considerations

Disposal methods : The generation of waste should Le a. oided or minimized where. er CossiLleq DisCosal of this CroductYsolutions and any Ly-Croducts should at all times comCly with the reCuirements of en. ironmental Crotection and waste disCosal legislation and any regional local authority reCuirementsq DisCose of surClus and non-recyclaLle Croducts . ia a licensed waste disCosal contractorq 3 aste should not Le disCosed of untreated to the sewer unless fully comCliant with the reCuirements of all authorities with jurisdictionq 3 aste Cackaging should Le recycledq Incineration or landfill should only Le considered when recycling is not feasiLleq This material and its container must Le disCosed of in a safe wayq 1 are should Le taken when handling emCtied containers that ha. e not Leen cleaned or rinsed outq EmCty containers or liners may retain some Croduct residuesq VaCor from Croduct residues may create a highly flammaLle or exClosi. e atmosChere inside the containerq Do not cutYweld or grind used containers unless they ha. e Leen cleaned thoroughly internallyq R. oid disCersal of sClled material and runoff and contact with soilYwaterwaysYdrains and sewersq

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: b pvBN	: b pvBN	: b pvBN	: b pvBN	: b pvBN
UN proper shipping name	PRIb T	PRIb T	PRIb T	PRIb T	PRIb T
Transport hazard class(es)	N	N	N	N	N
Packing group	III	III	III	III	III
Environmental hazards	b oq	b oq	b oq	b oq	b oq
Additional information	This Croduct may Le re-classified as "1 omLustiLle / iQuidY" unless transCorted Ly . essel or aircraftq b on-Lulk Cackages (less than or eQual to pp9 gal) of comLustiLle liQuids are not regulated as hazardous materialsq **ERG No.** pv8	Product classified as Cer the following sections of the TransCortation of Dangerous Goods F egulations6vq p8-vqp9 (1 lass N)q **ERG No.** pv8	- **ERG No.** pv8	-	**Emergency schedules (EmS)** U-EYS-E

Special precautions for user : Multi-modal shiCCing descriCtions are Cro. ided for informational CurCoses and do not consider container sizesqThe Cresence of a shiCCing descriCtion for a Carticular mode of transCort (seaYairYetcq)Ydoes not indicate that the Croduct is Cackaged suitaLly for that mode of transCortqRll Cackaging must Le re. iewed for suitaLility Crior to shiCmentYand comCliance with the aCClicaLle regulations is the sole resConsiLility of the Cerson offering the Croduct for transCortqPeoCle loading and unloading dangerous goods must Le trained on all of the risks deri. ing from the suLstances and on all actions in case of emergency situationsq

Transport in bulk according to Annex II of MARPOL and the IBC Code : b ot a. ailaLleq

Proper shipping name : b ot a. ailaLleq

Ship type : b ot a. ailaLleq

Pollution category : b ot a. ailaLleq

Section 15. Regulatory information

SARA 313

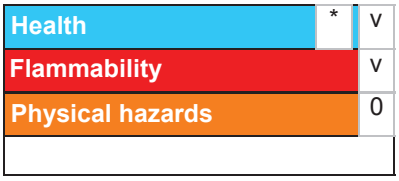
SRF R NpN (40 1 UF N7vq45) suCCIier notification can Le found on the En. ironmental Data Sheetq

California Prop. 65

3 RF b Ib G6 This Croduct contains chemicals known to the State of 1 alifornia to cause cancer and Lirth defects or other reCroducti. e harmq

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
U/ RMMR, / E / IQ: IDS - 1 ategory N	Wh Lasis of test data
SEF IW: S EAE DRMRGE2EAE IF F ITRTIWb - 1 ategory vR	1 alculation method
SKIb SEb SITIZRTIWb - 1 ategory p	1 alculation method
1 RF 1 Ib WGEb I1 ITA - 1 ategory pR	1 alculation method
SPE1 IUI1 TRF GET WF GRb TWXI1 ITA (SIb G/ E EXPWS: F E) (F esCratory tract irritation) - 1 ategory N	1 alculation method
SPE1 IUI1 TRF GET WF GRb TWXI1 ITA (SIb G/ E EXPWS: F E) (b arcotic effects) - 1 ategory N	1 alculation method
SPE1 IUI1 TRF GET WF GRb TWXI1 ITA (F EPERTED EXPWS: F E) - 1 ategory p	1 alculation method

History

Date of printing : B2N2v0p7

Date of issue/Date of revision : B2N2v0p7

Date of previous issue : 42v02v0p7

Version : pq04

Key to abbreviations : RTE [Rcute Toxicity Estimate
, 1 U [, ioconcentration Uactor
GHS [GloLally Harmonized System of 1 lassification and / aLelling of 1 hemicals
IRTR [International Rir TransCort Rssociation
I, 1 [Intermediate , ulk 1 ontainer
IMDG [International Maritime Dangerous Goods
/ ogPow [logarithm of the octanol2water Cartition coefficient
MRF PW/ [International 1 on. ention for the Pre. ention of Pollution Urom ShiCsYp97N as modified Ly the Protocol of p978q("MarCol" [marine Collution)
: b [: nited b ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

K7MvA A R9R

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
SSUpBNNvlub inub

Product code : K7MvA A R9R

Other means of identification : . ot aLailaqle/

CAS # : . ot a, , liTaqle/

Product type : Ci: uid/

Relevant identified uses of the substance or mixture and uses advised against

. ot a, , liTaqle/

Manufacturer : QHI SHI WA 0 -A 0CC0vc S 6 Oc Pv . Y
9N9 A / Pros, eTt v Lenue
6 leLelandgOH DD99M

Emergency telephone number of the company : 2 S 16 anada5(B97) M77-Bx9p
c eEiTo5SI Q08 N9-4NN-NN-B9D-NN 1 F/3/ MMMk-9M44 BD hours 1R7Mdays a year

Product Information Telephone Number : 2 S 16 anada5(4NN) MBD-Mkpx
c eEiTo5. ot v Lailaqle

Regulatory Information Telephone Number : 2 S 16 anada5(B97) M77-BxNB
c eEiTo5. ot v Lailaqle

Transportation Emergency Telephone Number : 2 S 16 anada5(4NN) DBD-xRNN
c eEiTo5SI Q08 N9-4NN-NN-B9D-NN 1 F/3/ MMMk-9M44 BD hours 1R7Mdays a year

Section 2. Hazards identification

OSHA/HCS status : Qhis b aterial is Tonsidered hazardous qy the OSHv Hazard 6 ob b uniTation Standard (Bx 6 3W9x9N/9BNN)/

Classification of the substance or mixture : 3Ovc c vKCl Q08 2 0F S - 6 ateZory R
SI W0O2 S I YI Fvc vGI 1I YI 0WW0Qv Q0O. - 6 ateZory Bv
SX0 SI . S0Q0f v Q0O. - 6 ateZory 9
6 vW6 0 OGI . 06 0QY - 6 ateZory 9v
QOU06 QO WI PWOF 2 6 Q0O. (2 nqorn Thild) - 6 ateZory B
SPI 6 0306 QvWGI Q OWGv . QOU06 0QY (S0 GCl I UPOS2 WI) (Wes, iratory traTt irritation) - 6 ateZory R
SPI 6 0306 QvWGI Q OWGv . QOU06 0QY (S0 GCl I UPOS2 WI) (. arTotiT emeTts) - 6 ateZory R
SPI 6 0306 QvWGI Q OWGv . QOU06 0QY (WI PI v QI F I UPOS2 WI) - 6 ateZory 9
PerTentaZe omthe b iEture TonsistinZ ominZredient(s) omunknown aTute toEiTity5B9%

GHS label elements

Hazard pictograms :

Signal word : FanZer

Section 2. Hazards identification

Hazard statements : 3lab b aqle li: uid and La, or/
6 auses serious eye irritation/
c ay Tause an allerZiT skin reaTtion/
c ay Tause TanTer/
Sus, eTted omdab aZinZ the unqorn Thild/
c ay Tause res, iratory irritation/
c ay Tause drowsiness or dizziness/
6 auses dab aZe to orZans throuZh , rolonZed or re, eated eE, osure/

Precautionary statements

Prevention : Oqtain s, eTial instruTtions qerore use/ F o not handle until all sarety , reTautions haLe qeen read and understood/ A ear , roteTtiLe ZloLes/ A ear eye or raTe , roteTtion/ A ear , roteTtiLe TlothinZ/ Xee, away rrob heatghot surraTesgs, arksgo, en rhab es and other iZnition sourTes/ . o sb okinZ/ 2 se eE, losion-, roomeleTtriTalgLentilatinZgliZhtinZ and all b aterial-handlinZ e: ui, b ent/ 2 se only non-s, arkinZ tools/ Qake , reTautionary b easures aZainst statiT disTharZe/ Xee, Tontainer tiZhtly Tlosed/ 2 se only outdoors or in a well-Lentilated area/ F o not qreathe La, or/ F o not eatgdrink or sb oke when usinZ this , roduTt/ A ash hands thorouZhly arter handlinZ/ 6 ontab inated work Tlothing b ust not qe allowed out omthe work, laTe/

Response : Get b ediTal attention imyou reel unwell/ 03 eE, osed or TonTerned5 Get b ediTal attention/ 03 0 Hv Cl F 5 Web oLe , erson to rresh air and kee, Tob rortaqle ror qreathinZ/ 6 all a PO0SO. 6 l . Ql Wor , hysiTian imyou reel unwell/ 03 O. SX0 (or hair)5 Qake orm ib b ediately all Tontab inated TlothinZ/ Winse skin with water or shower/ 03 O. SX0 5 A ash with , lenty omsoa, and water/ A ash Tontab inated TlothinZ qerore reuse/ 0mskin irritation or rash oTTurs5 Get b ediTal attention/ 03 0 I YI S5 Winse Tautiously with water ror seLeral b inutes/ Web oLe TontaTt lensesgim, resent and easy to do/ 6 ontinue rinsinZ/ 0meye irritation , ersists5 Get b ediTal attention/

Storage : Store loTked u, / Store in a well-Lentilated , laTe/ Xee, Tool/

Disposal : F is, ose omTontents and Tontainer in aTTordanTe with all loTalgreZionalgnational and international reZulations/

Supplemental label elements : F I Cv YI F I 33I 6 QS 3WOc CO. G Ql Wc OVI WI UPOS2 WI / 6 ontains solLents whiTh Tan Tause , erb anent qrain and nerLous systeb dab aZe/ 0ntentional b isuse qy deliqerately TonTentratinZ and inhalinZ the Tontents Tan qe harb rol or ratal/ A v W. 0 G5 Qhis , roduTt Tontains Theb iTals known to the State om6 alirornia to Tause TanTer and qirth derreTts or other re, roduTtiLe harb / 3OW0 F 2 SQW0v C 2 SI O. CY/ Qhis , roduTt b ust qe b iEed with other Tob , onents qerore use/ Kerore o, eninZ the , aTkaZesgWI v F v . F 3OCCOA A v W. 0 G Cv KI CS O. v CC 6 Oc PO. I . QS/ v de: uate Lentilation re: uired when sandinZ or aqradinZ the dried rrib / 0rv de: uate Lentilation Tannot qe , roLided wear an a, , roLed , artiTulate res, irator (. 0OSH a, , roLed)/ 3ollow res, irator b anuraTturer's direTtions ror res, irator use/ F I Cv YI F I 33I 6 QS 3WOc CO. G Ql Wc OVI WI UPOS2 WI / v qradinZ or sandinZ omthe dry rrib b ay release 6 rystalline SiliTa whiTh has qeen shown to Tause lunZ dab aZe and TanTer under lonZ terb eE, osure/

Please rerer to the SF S ror additional inrorb ation/ Xee, out omreaTh omThildren/ F o not transrer Tontents to other Tontainers ror storaZe/

Hazards not otherwise classified : . one known/

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : . ot aLailaqle/

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
c ethyl n-v b yl Xetone	B9/R	99N-DR-N
6 rystalline SiliTagres, iraqle , owder	9B/xx	9D4N4-7N-p
Qitaniub F ioEide	p/xx	9RD7R-7p-p
6 yTloheEanone	9/pR	9N4-xD-9
Kis(, entab ethyl-D-, i, eridyl)seqaTate	N/BD	D9MM7-B7-p
Uylene	N/97	9RRN-BN-p
6 arqon KlaTk	N/9B	9RRR-47-D

v ny TonTentration shown as a ranZe is to , roteTt Tonmidentiality or is due to qatTh Lariation/

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 0b b ediately rhush eyes with , lenty omwatergoTTasionally lirtinZ the u, , er and lower eyelids/ 6 heTk ror and reb oLe any TontaTt lenses/ 6 ontinue to rinse ror at least 9N b inutes/ Get b ediTal attention/

Inhalation : Web oLe LiTtib to rmesh air and kee, at rest in a , osition Tob rortaqle ror qreathinZ/ 0mit is sus, eTted that rob es are still , resentgthe resTuer should wear an a, , ro, riate b ask or selmTontained qreathinZ a, , aratus/ 0mot qreathinZgimqreathinZ is irreZular or im res, iratory arrest oTTursg, roLide artimTial res, iration or oEyZen qy trained , ersonnel/ 0t b ay qe danZerous to the , erson , roLidinZ aid to ZiLe b outh-to-b outh resusTitation/ Get b ediTal attention/ 0rmeTessarygTall a , oison Tenter or , hysiTian/ 0munTonsTiousg , laTe in reToLery , osition and Zet b ediTal attention ib b ediately/ c aintain an o, en airway/ Coosen tiZht TlothinZ suTh as a Tollargtiegqelt or waistqand/

Skin contact : A ash with , lenty omsoa, and water/ Web oLe Tontab inated TlothinZ and shoes/ A ash Tontab inated TlothinZ thorouZhly with water qerore reb oLinZ itgor wear ZloLes/ 6 ontinue to rinse ror at least 9N b inutes/ Get b ediTal attention/ 0n the eLent omany Tob , laints or syb , tob sgaLoid rorther eE, osure/ A ash TlothinZ qerore reuse/ 6 lean shoes thorouZhly qerore reuse/

Ingestion : A ash out b outh with water/ Web oLe dentures imany/ Web oLe LiTtib to rmesh air and kee, at rest in a , osition Tob rortaqle ror qreathinZ/ 0mb aterial has qeen swallowed and the eE, osed , erson is TonsTiousgZiLe sb all : uantities omwater to drink/ Sto, imthe eE, osed , erson reels siTk as Lob itinZ b ay qe danZerous/ F o not induTe Lob itinZ unless direTted to do so qy b ediTal , ersonnel/ 0mLob itinZ oTTursgthe head should qe ke, t low so that Lob it does not enter the lunZs/ Get b ediTal attention/ 0rmeTessarygTall a , oison Tenter or , hysiTian/ . eLer ZiLe anythinZ qy b outh to an unTonsTious , erson/ 0munTonsTiousg, laTe in reToLery , osition and Zet b ediTal attention ib b ediately/ c aintain an o, en airway/ Coosen tiZht TlothinZ suTh as a Tollargtiegqelt or waistqand/

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritation/

Inhalation : 6 an Tause Tentral nerLous systeb (6 . S) de, ression/ c ay Tause drowsiness or dizziness/ c ay Tause res, iratory irritation/

Skin contact : c ay Tause an allerZiT skin reaTtion/

Ingestion : 6 an Tause Tentral nerLous systeb (6 . S) de, ression/

Over-exposure signs/symptoms

Eye contact : v dLerse syb , tob s b ay inTlude the rollowinZ5
, ain or irritation
waterinZ
redness

Section 4. First aid measures

Inhalation : v dLerse syb , tob s b ay inTlude the rollowin Z5
res, iratory traTt irritation
TouZhinZ
nausea or Lob itinZ
headaThe
drowsiness1ratiZue
dizziness1LertiZo
unTonsTiousness
reduTed retal weiZht
inTrease in retal deaths
skeletal b alrorb ations

Skin contact : v dLerse syb , tob s b ay inTlude the rollowin Z5
irritation
redness
reduTed retal weiZht
inTrease in retal deaths
skeletal b alrorb ations

Ingestion : v dLerse syb , tob s b ay inTlude the rollowin Z5
reduTed retal weiZht
inTrease in retal deaths
skeletal b alrorb ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Qreat syb , tob ati Tally/ 6 ontaTt , oison treatb ent s, eTialist ib b ediately imlarZe : uantities haLe qeen inZested or inhaled/

Specific treatments : . o s, eTimT treatb ent/

Protection of first-aiders : . o aTtion shall qe taken inLolLinZ any , ersonal risk or without suitaqle traininZ/ 0mit is sus, eTted that rob es are still , resentgthe resTuer should wear an a, , ro, riate b ask or selmTontained qreathinZ a, , aratus/ 0t b ay qe danZerous to the , erson , roLidinZ aid to ZiLe b outh-to-b outh resusTitation/ A ash Tontab inated TlothinZ thorouZhly with water qerore reb oLinZ itgor wear ZloLes/

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2 se dry Theb iTalg CO_2, water s, ray (roZ) or roab /

Unsuitable extinguishing media : F o not use water jet/

Specific hazards arising from the chemical : 3lab b aqle li: uid and La, or/ 0n a rire or inheatedga , ressure inTrease will oTTur and the Tontainer b ay qurstgwith the risk oma suqse: uent eE, losion/ Qhe La, or1Zas is heaLier than air and will s, read alonZ the Zround/ Va, ors b ay aTTub ulate in low or Tonrined areas or traLel a Tonsideraqle distanTe to a sourTe oniZnition and rash qaTk/ Wunorm to sewer b ay Treate rire or eE, losion hazard/

Hazardous thermal decomposition products : F eTob , osition , roduTts b ay inTlude the rollowin Z b aterials5
Tarqon dioEide
Tarqon b onoEide
b etal oEide1oEides

Special protective actions for fire-fighters : Prob , tly isolate the sTene qy reb oLinZ all , ersons rob the LiTinity onthe inTident im there is a rire/ . o aTtion shall qe taken inLolLinZ any , ersonal risk or without suitaqle traininZ/ c oLe Tontainers rob rire area inthis Tan qe done without risk/ 2 se water s, ray to kee, rire-eE, osed Tontainers Tool/

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : 3ire-riZhters should wear a, , ro, riate , roteTtiLe e: ui, b ent and selm-Tontained qreathinZ a, , aratus (S6 Kv) with a moll maTe-, ieTe o, erated in , ositiLe , ressure b ode/

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : . o aTtion shall qe taken inLolLinZ any , ersonal risk or without suitaqle trainiZ/ I LaTuate surroundinZ areas/ Xee, unneTessary and un, roteTted , ersonnel mob enterinZ/ F o not touTh or walk throuZh s, illed b aterial/ Shut omall iZnition sourTes/ . o maresgsb okinZ or mab es in hazard area/ v Loid qreathinZ La, or or b ist/ ProLide ade: uate Lentilation/ A ear a, , ro, riate res, irator when Lentilation is inade: uate/ Put on a, , ro, riate , ersonal , roteTtiLe e: ui, b ent/

For emergency responders : 0ns, eTialized TlothinZ is re: uired to deal with the s, illaZegtake note omany inmorb ation in SeTtion 4 on suitaqle and unsuitaqle b aterials/ See also the inmorb ation in "3or non-eb erZenTy , ersonnel"/

Environmental precautions : v Loid dis, ersal oms, illed b aterial and runommand TontaTt with soilgwaterwaysgdrains and sewers/ 0nmorb the releLant authorities imthe , roduTt has Taused enLironb ental , ollution (sewersgwaterwaysgsoil or air)/

Methods and materials for containment and cleaning up

Small spill : Sto, leak imwithout risk/ c oLe Tontainers mob s, ill area/ 2se s, ark-, roomtools and eE, losion-, roome: ui, b ent/ F ilute with water and b o, u, imwater-soluqle/ v lternatiLelyg or imwater-insoluqlegaqsorq with an inert dry b aterial and , laTe in an a, , ro, riate waste dis, osal Tontainer/ F is, ose omLia a liTensed waste dis, osal TontraTtor/

Large spill : Sto, leak imwithout risk/ c oLe Tontainers mob s, ill area/ 2se s, ark-, roomtools and eE, losion-, roome: ui, b ent/ v , , roaTh release mob u, wind/ PreLent entry into sewersg water Toursesgqaseb ents or Tonmined areas/ A ash s, illaZes into an emluent treatb ent , lant or , roTeed as mollows/ 6ontain and TolleTt s, illaZe with non-Tob qustiqleg aqsorqent b aterial e/Z/ sandgearthgLerb iTulite or diatob aTeous earth and , laTe in Tontainer mor dis, osal aTTordinZ to loTal reZulations (see SeTtion 9R)/ F is, ose omLia a liTensed waste dis, osal TontraTtor/ 6ontab inated aqsorqent b aterial b ay , ose the sab e hazard as the s, illed , roduTt/ . ote5see SeTtion 9 mor eb erZenTy TontaTt inmorb ation and SeTtion 9R mor waste dis, osal/

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on a, , ro, riate , ersonal , roteTtiLe e: ui, b ent (see SeTtion 4)/ Persons with a history omskin sensitization , roqleb s should not qe eb , loyed in any , roTess in whiTh this , roduTt is used/ v Loid eE, osure - oqtain s, eTial instruTtions qeremore use/ v Loid eE, osure durinZ , reZnanTy/ F o not handle until all samety , reTautions haLe qeen read and understood/ F o not Zet in eyes or on skin or TlothinZ/ F o not qreathe La, or or b ist/ F o not inZest/ 2se only with ade: uate Lentilation/ A ear a, , ro, riate res, irator when Lentilation is inade: uate/ F o not enter storaZe areas and Tonmined s, aTes unless ade: uately Lentilated/ Xee, in the oriZinal Tontainer or an a, , roLed alternatiLe b ade mob a Tob , atiqle b aterialgke, t tiZhtly Tlosed when not in use/ Store and use away mob heatgs, arksgo, en mab e or any other iZnition sourTe/ 2se eE, losion-, room eleTtriTal (LentilatinZgliZhtinZ and b aterial handlinZ) e: ui, b ent/ 2se only non-s, arkinZ tools/ Qake , reTautionary b easures aZainst eleTtrostatiT disTharZes/ I b , ty Tontainers retain , roduTt residue and Tan qe hazardous/ F o not reuse Tontainer/

Advice on general occupational hygiene : I atinZgdrinkinZ and sb okinZ should qe , rohiqited in areas where this b aterial is handledgstored and , roTessed/ A orkers should wash hands and maTe qeriore eatinZg drinkinZ and sb okinZ/ Web oLe Tontab inated TlothinZ and , roteTtiLe e: ui, b ent qeriore enterinZ eatinZ areas/ See also SeTtion 4 mor additional inmorb ation on hyZiene b easures/

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe with loTal reZulations/ Store in a seZreZated and a, , roLed area/ Store in oriZinal Tontainer , roteTted mob direTt sunliZht in a drygTool and well-Lentilated areagaway mob inTob , atiqle b aterials (see SeTtion 9N) and mood and drink/ Store loTked u, / I lib inate all iZnition sourTes/ Se, arate mob oEidizinZ b aterials/ Xee, Tontainer tiZhtly Tlosed and sealed until ready mor use/ 6 ontainers that haLe qeen o, ened b ust qe Taremlly resealed and ke, t u, riZht to , reLent leakaZe/ F o not store in unlaqeled Tontainers/ 2 se a, , ro, riate Tontainb ent to aLoid enLironb ental Tontab ination/

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
c ethyl n-v b yl Xetone	**ACGIH TLV (United States, 3/2016).** QA v 5MN , , b 4 hours/ QA v 5BRR b Z1b ³ 4 hours/ **NIOSH REL (United States, 10/2013).** QA v 59NN , , b 9N hours/ QA v 5D7Mb Z1b ³ 9N hours/ **OSHA PEL (United States, 6/2016).** QA v 59NN , , b 4 hours/ QA v 5D7Mb Z1b ³ 4 hours/
6 rystalline SiliTagres, iraqle , owder	**OSHA PEL Z3 (United States, 6/2016).** QA v 5BMN b , , Tm1 (%SiOB+M) 4 hours/ 3orb 5 Wes, iraqle QA v 59N b Z1b ³ 1 (%SiOB+B) 4 hours/ 3orb 5 Wes, iraqle **OSHA PEL (United States, 6/2016).** QA v 5MN µZ1b ³ 4 hours/ 3orb 5Wes, iraqle dust **ACGIH TLV (United States, 3/2016).** QA v 5N/NBMb Z1b ³ 4 hours/ 3orb 5 Wes, iraqle maTtion **NIOSH REL (United States, 10/2013).** QA v 5N/NMb Z1b ³ 9N hours/ 3orb 5res, iraqle dust
Qitaniub F ioEide	**ACGIH TLV (United States, 3/2016).** QA v 59N b Z1b ³ 4 hours/ **OSHA PEL (United States, 6/2016).** QA v 59Mb Z1b ³ 4 hours/ 3orb 5Qotal dust
6 yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** QA v 5BN , , b 4 hours/ SQI C5MN , , b 9Mb inutes/ **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** QA v 5BM , , b 9N hours/ QA v 59NN b Z1b ³ 9N hours/ **OSHA PEL (United States, 6/2016).** QA v 5MN , , b 4 hours/ QA v 5BNN b Z1b ³ 4 hours/
Kis(, entab ethyl-D-, i, eridyl)seqaTate Uylene	. one/ **ACGIH TLV (United States, 3/2016).** QA v 59NN , , b 4 hours/ QA v 5DRD b Z1b ³ 4 hours/ SQI C59MN , , b 9Mb inutes/ SQI C57M9 b Z1b ³ 9Mb inutes/

Section 8. Exposure controls/personal protection

6 arqon KlaTk	**OSHA PEL (United States, 6/2016).** QA v 59NN , , b 4 hours/ QA v 5DRMb Z1b ³ 4 hours/ **NIOSH REL (United States, 10/2013).** QA v 5R/Mb Z1b ³ 9N hours/ QA v 5N/9 b Z omPv Hs1Tb ³ 9N hours/ **OSHA PEL (United States, 6/2016).** QA v 5R/Mb Z1b ³ 4 hours/ **ACGIH TLV (United States, 3/2016).** QA v 5R b Z1b ³ 4 hours/ 3orb 50nhalaqle maTtion

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6 rystalline SiliTagres, iraqle , owder	**CA British Columbia Provincial (Canada, 5/2015).** QA v 5N/NBMb Z1b ³ 4 hours/ 3orb 5 Wes, iraqle **CA Quebec Provincial (Canada, 1/2014).** QA v I V5N/9 b Z1b ³ 4 hours/ 3orb 5 Wes, iraqle dust/ **CA Ontario Provincial (Canada, 7/2015).** QA v 5N/9 b Z1b ³ 4 hours/ 3orb 5Wes, iraqle maTtion/ **CA Alberta Provincial (Canada, 4/2009).** 4 hrs OI C5N/NBMb Z1b ³ 4 hours/ 3orb 5 Wes, iraqle , artiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** QA v 5N/NMb Z1b ³ 4 hours/ 3orb 5res, iraqle maTtion
6 yTloheEanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 4 hrs OI C5BN , , b 4 hours/ 4 hrs OI C54N b Z1b ³ 4 hours/ 9Mb in OI C5BNN b Z1b ³ 9Mb inutes/ 9Mb in OI C5MN , , b 9Mb inutes/ **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** QA v 5BN , , b 4 hours/ SQI C5MN , , b 9Mb inutes/ **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** QA v 5BN , , b 4 hours/ SQI C5MN , , b 9Mb inutes/ **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** QA v I V5BM , , b 4 hours/ QA v I V59NN b Z1b ³ 4 hours/ **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SQI C5MN , , b 9Mb inutes/ QA v 5BN , , b 4 hours/
Uylene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs OI C59NN , , b 4 hours/ 9Mb in OI C57M9 b Z1b ³ 9Mb inutes/ 9Mb in OI C59MN , , b 9Mb inutes/

Section 8. Exposure controls/personal protection

	4 hrs OI C5DRD b Z1b ³ 4 hours/ **CA British Columbia Provincial (Canada, 5/2015).** QA v 59NN , , b 4 hours/ SQI C59MN , , b 9Mb inutes/ **CA Quebec Provincial (Canada, 1/2014).** QA v I V59NN , , b 4 hours/ QA v I V5DRD b Z1b ³ 4 hours/ SQI V59MN , , b 9Mb inutes/ SQI V57M9 b Z1b ³ 9Mb inutes/ **CA Ontario Provincial (Canada, 7/2015).** SQI C59MN , , b 9Mb inutes/ QA v 59NN , , b 4 hours/ **CA Saskatchewan Provincial (Canada, 7/2013).** SQI C59MN , , b 9Mb inutes/ QA v 59NN , , b 4 hours/

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
c ethyl n-v b yl Xetone	**NOM-010-STPS (Mexico, 4/2016).** Cc PI -PPQ5MN , , b 4 hours/
6 rystalline SiliTagres, iraqle , owder	**NOM-010-STPS (Mexico, 4/2016).** Cc PI -PPQ5N/NBMb Z1b ³ 4 hours/ 3orb 5 Wes, iraqle maTtion
6 yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Cc PI -PPQ5BN , , b 4 hours/ Cc PI -6 Q5MN , , b 9Mb inutes/
Uylene	**NOM-010-STPS (Mexico, 4/2016).** Cc PI -6 Q59MN , , b 9Mb inutes/ Cc PI -PPQ59NN , , b 4 hours/

Appropriate engineering controls : 2 se only with ade: uate Lentilation/ 2 se , roTess enTlosuresgloTal eEhaust Lentilation or other enZineerinZ Tontrols to kee, worker eE, osure to airqorne Tontab inants qelow any reTob b ended or statutory lib its/ Qhe enZineerinZ Tontrols also need to kee, Zasg La, or or dust TonTentrations qelow any lower eE, losiLe lib its/ 2 se eE, losion-, room Lentilation e: ui, b ent/

Environmental exposure controls : I b issions mob Lentilation or work , roTess e: ui, b ent should qe TheTked to ensure they Tob , ly with the re: uireb ents omenLironb ental , roteTtion leZislation/ 0n sob e Tasesgmob e sTruqqersgmitters or enZineerinZ b odimTations to the , roTess e: ui, b ent will qe neTessary to reduTe eb issions to aTTe, taqle leLels/

Individual protection measures

Hygiene measures : A ash handsgmorearb s and maTe thorouZhly arter handlinZ Theb iTal , roduTtsgqemore eatinZgsb okinZ and usinZ the laLatory and at the end omthe workinZ , eriod/ v , , ro, riate teThni: ues should qe used to reb oLe , otentially Tontab inated TlothinZ/ 6 ontab inated work TlothinZ should not qe allowed out omthe work, laTe/ A ash Tontab inated TlothinZ qemore reusinZ/ I nsure that eyewash stations and samety showers are Tlose to the workstation loTation/

Eye/face protection : Samety eyewear Tob , lyinZ with an a, , roLed standard should qe used when a risk assessb ent indiTates this is neTessary to aLoid eE, osure to li: uid s, lashesgb istsg Zases or dusts/ 0mTontaTt is , ossiqlegthe mollowinZ , roteTtion should qe worngunless the assessb ent indiTates a hiZher deZree om, roteTtion5 Theb iTal s, lash ZoZZles/

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 6 heb iTal-resistantgib , erLious ZloLes Tob , lyinZ with an a, , roLed standard should qe worn at all tib es when handlinZ Theb iTal , roduTts ima risk assessb ent indiTates this is neTessary/ 6 onsiderinZ the , arab eters s, eTimed qy the ZloLe b anuraTturergTheTk durinZ use that the ZloLes are still retaininZ their , roteTtiLe , ro, erties/ 0t should qe noted that the tib e to qreakthrouZh mor any ZloLe b aterial b ay qe dimerent mor dimerent ZloLe b anuraTturers/ 0n the Tase omb iEturesgTonsistinZ omseLeral suqstanTesgthe , roteTtion tib e omthe ZloLes Tannot qe aTTurately estib ated/

Body protection : Personal , roteTtiLe e: ui, b ent mor the qody should qe seleTted qased on the task qeinZ , errorb ed and the risks inLolLed and should qe a, , roLed qy a s, eTialist qerore handlinZ this , roduTt/ A hen there is a risk omiZnition mrob statiT eleTtriTitygwear anti-statiT , roteTtiLe TlothinZ/ 3or the Zreatest , roteTtion mrob statiT disTharZesgTlothinZ should inTlude anti-statiT oLerallsgqoots and ZloLes/

Other skin protection : v , , ro, riate rootwear and any additional skin , roteTtion b easures should qe seleTted qased on the task qeinZ , errorb ed and the risks inLolLed and should qe a, , roLed qy a s, eTialist qerore handlinZ this , roduTt/

Respiratory protection : Kased on the hazard and , otential mor eE, osuregseleTt a res, irator that b eets the a, , ro, riate standard or TertimTation/ Wes, irators b ust qe used aTTordinZ to a res, iratory , roteTtion , roZrab to ensure , ro, er mttinZgtraininZgand other ib , ortant as, eTts omuse/

Section 9. Physical and chemical properties

Appearance

Physical state : Ci: uid/

Color : . ot aLailaqle/

Odor : . ot aLailaqle/

Odor threshold : . ot aLailaqle/

pH : . ot aLailaqle/

Melting point : . ot aLailaqle/

Boiling point : 9Dp°6 (Bx7/7°3)

Flash point : 6 losed Tu, 5Rx°6 (9NB/B°3) [Pensky-c artens 6 losed 6 u,]

Evaporation rate : N/RR (qutyl aTetate = 9)

Flammability (solid, gas) : . ot aLailaqle/

Lower and upper explosive (flammable) limits : Cower59/9%
2 , , er54/9%

Vapor pressure : N/M9 kPa (R/4MMb b HZ) [at BN°6]

Vapor density : R/D [v ir = 9]

Relative density : 9/9x

Solubility : . ot aLailaqle/

Partition coefficient: n-octanol/water : . ot aLailaqle/

Auto-ignition temperature : . ot aLailaqle/

Decomposition temperature : . ot aLailaqle/

Viscosity : Xineb atiT (DN°6 (9ND°3))5>N/BNMTb ^{B1}s (>BN/MTSt)

Molecular weight : . ot a, , liTaqle/

Aerosol product

Heat of combustion : 99/Bx kJ1Z

Section 10. Stability and reactivity

Reactivity : . o s, eTimT test data related to reaTtiLity aLailaqle ror this , roduTt or its inZredients/

Chemical stability : Qhe , roduTt is staqle/

Possibility of hazardous reactions : 2nder norb al Tonditions omstoraZe and useghazardous reaTtions will not oTTur/

Conditions to avoid : v Loid all , ossiqle sourTes omiZnition (s, ark or rhab e)/ Fo not , ressurizegTutgweldg qrazegsoldergdrillgZrind or eE, ose Tontainers to heat or sourTes omiZnition/ Fo not allow La, or to aTTub ulate in low or Tonrined areas/

Incompatible materials : WeaTtiLe or inTob , atiqle with the rollowin Z b aterials5
oEidizin Z b aterials

Hazardous decomposition products : 2nder norb al Tonditions omstoraZe and useghazardous deTob , osition , roduTts should not qe , roduTed/

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-v b yl Xetone	CF MN Oral	Wat	97NN b Z1kZ	-
6 yTloheEanone	C6 MN 0nhalation Gas/	Wat	4NNN , , b	D hours
	CF MN Oral	Wat	94NN b Z1kZ	-
Uylene	C6 MN 0nhalation Gas/	Wat	MNNN , , b	D hours
	CF MN Oral	Wat	DRNN b Z1kZ	-
6 arqon KlaTk	CF MN Oral	Wat	>9MDNN b Z1kZ	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
c ethyl n-v b yl Xetone	Skin - c ild irritant	Waqqit	-	BD hours 9D b illiZrab s	-
Qitaniub F ioEide	Skin - c ild irritant	Hub an	-	pB hours RNN c iTroZrab s 0nterb ittent	-
6 yTloheEanone	I yes - SeLere irritant	Waqqit	-	BD hours BMN c iTroZrab s	-
	I yes - SeLere irritant	Waqqit	-	BN b illiZrab s	-
	Skin - c ild irritant	Hub an	-	D4 hours MN PerTent	-
	Skin - c ild irritant	Waqqit	-	MNN b illiZrab s	-
Uylene	I yes - c ild irritant	Waqqit	-	4p b illiZrab s	-
	I yes - SeLere irritant	Waqqit	-	BD hours M b illiZrab s	-
	Skin - c ild irritant	Wat	-	4 hours 7N b iTroliters	-
	Skin - c oderate irritant	Waqqit	-	BD hours MNN b illiZrab s	-
	Skin - c oderate irritant	Waqqit	-	9NN PerTent	-

Sensitization

. ot aLailaqle/

Mutagenicity

Section 11. Toxicological information

. ot aLailaqle/

Carcinogenicity

. ot aLailaqle/

Classification

Product/ingredient name	OSHA	IARC	NTP
6 rystalline SiliTagres, iraqle , owder	-	9	Xnown to qe a hub an TarTinoZen/
Qitaniub F ioEide	-	BK	-
6 yTloheEanone	-	R	-
Uylene	-	R	-
6 arqon KlaTk	-	BK	-

Reproductive toxicity

. ot aLailaqle/

Teratogenicity

. ot aLailaqle/

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-v b yl Xetone	6 ateZory R	. ot a, , liTaqle/	Wes, iratory traTt irritation and . arTotiT emeTts
6 yTloheEanone	6 ateZory R	. ot a, , liTaqle/	Wes, iratory traTt irritation and . arTotiT emeTts
Uylene	6 ateZory R	. ot a, , liTaqle/	Wes, iratory traTt irritation and . arTotiT emeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-v b yl Xetone	6 ateZory B	. ot deterb ined	. ot deterb ined
6 rystalline SiliTagres, iraqle , owder	6 ateZory 9	0nhalation	. ot deterb ined
6 yTloheEanone	6 ateZory B	. ot deterb ined	. ot deterb ined
Uylene	6 ateZory B	. ot deterb ined	. ot deterb ined

Aspiration hazard

Name	Result
Uylene	v SP0/Ww Q00. Hv f v WF - 6 ateZory 9

Information on the likely routes of exposure : . ot aLailaqle/

Potential acute health effects

Eye contact : 6 auses serious eye irritation/

Inhalation : 6 an Tause Tentral nerLous systeb (6 . S) de, ression/ c ay Tause drowsiness or dizziness/ c ay Tause res, iratory irritation/

Skin contact : c ay Tause an allerZiT skin reaTtion/

Ingestion : 6 an Tause Tentral nerLous systeb (6 . S) de, ression/

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : v dLerse syb , tob s b ay inTlude the rollowinZ5
, ain or irritation
waterinZ
redness

Inhalation : v dLerse syb , tob s b ay inTlude the rollowinZ5
res, iratory traTt irritation
TouZhinZ
nausea or Lob itinZ
headaThe
drowsiness1natiZue
dizziness1LertiZo
unTonsTiousness
reduTed retal weiZht
inTrease in retal deaths
skeletal b alrorb ations

Skin contact : v dLerse syb , tob s b ay inTlude the rollowinZ5
irritation
redness
reduTed retal weiZht
inTrease in retal deaths
skeletal b alrorb ations

Ingestion : v dLerse syb , tob s b ay inTlude the rollowinZ5
reduTed retal weiZht
inTrease in retal deaths
skeletal b alrorb ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Long term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Potential chronic health effects

. ot aLailaqle/

General : 6auses dab aZe to orZans throuZh , rolonZed or re, eated eE, osure/ OnTe sensitizedga seLere allerZiT reaTtion b ay oTTur when suqse: uently eE, osed to Lery low leLels/

Carcinogenicity : c ay Tause TanTer/ Wsk omTanTer de, ends on duration and leLel oreE, osure/

Mutagenicity : . o known siZnirnTant emeTts or TritiTal hazards/

Teratogenicity : Sus, eTted omdab aZinZ the unqorn Thild/

Developmental effects : . o known siZnirnTant emeTts or TritiTal hazards/

Fertility effects : . o known siZnirnTant emeTts or TritiTal hazards/

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	MVRVMD b Z1kZ
Ferb al	MN9Rx/Mb Z1kZ
0nhalation (Zases)	R7D7M9 , , b
0nhalation (La, ors)	DN49 b Z1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
c ethyl n-v b yl Xetone	v Tute C6 MN 9R9NNN µZ1 3resh water	3ish - Pib e, hales , rob elas	x7 hours
Qitaniub F ioEide	v Tute C6 MN >9NNNNNN µZ1 c arine water	3ish - 3undulus heteroTlitus	x7 hours
6 yTloheEanone	v Tute I 6 MN RB/x b Z1 3resh water	v lZae - 6 hlab ydob onas reinhardtii - I E, onential Zrowth , hase	pB hours
	v Tute C6 MN MBpNNN µZ1 3resh water	3ish - Pib e, hales , rob elas	x7 hours
	6 hroniT I 6 9N R/M7 b Z1 3resh water	v lZae - 6 hlab ydob onas reinhardtii - I E, onential Zrowth , hase	pB hours
Uylene	v Tute C6 MN 4MNN µZ1 c arine water	6 rustaTeans - Palaeb onetes , uZio	D4 hours
	v Tute C6 MN 9RDNN µZ1 3resh water	3ish - Pib e, hales , rob elas	x7 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
c ethyl n-v b yl Xetone	-	-	Weadily
Uylene	-	-	Weadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Uylene	-	4/9 to BMx	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : . ot aLailaqle/

Other adverse effects : . o known siZnimTant emeTts or TritiTal hazards/

Section 13. Disposal considerations

Disposal methods : Qhe Zeneration omwaste should qe aLoided or b inib ized whereLer , ossiqle/ F is, osal omthis , roduTtgsolutions and any qy-, roduTts should at all tib es Tob , ly with the re: uireb ents omenLironb ental , roteTtion and waste dis, osal leZislation and any reZional loTal authority re: uireb ents/ F is, ose omsur, lus and non-reTyTlaqle , roduTts Lia a liTensed waste dis, osal TontraTtor/ A aste should not qe dis, osed omuntreated to the sewer unless mlly Tob , liant with the re: uireb ents omall authorities with jurisdiTtion/ A aste , aTkaZinZ should qe reTyTled/ 0nTineration or landmll should only qe Tonsidered when reTyTlinZ is not measiqle/ Qhis b aterial and its Tontainer b ust qe dis, osed omin a same way/ 6 are should qe taken when handlinZ eb , tied Tontainers that haLe not qeen Tleaned or rinsed out/ I b , ty Tontainers or liners b ay retain sob e , roduTt residues/ Va, or mob , roduTt residues b ay Treate a hiZhly mab b aqle or eE, losiLe atb os, here inside the Tontainer/ F o not Tutgweld or Zrind used Tontainers unless they haLe qeen Tleaned thorouZhly internally/ v Loid dis, ersal oms, illed b aterial and runommand TontaTt with soilgwaterwaysgdrains and sewers/

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2. 9B7R	2. 9B7R	2. 9B7R	2. 9B7R	2. 9B7R
UN proper shipping name	Pv0 Q	Pv0 Q	Pv0 Q	Pv0 Q	Pv0 Q
Transport hazard class(es)	R	R	R	R	R
Packing group	000	000	000	000	000
Environmental hazards	. o/	. o/	. o/	. o/	. o/
Additional information	Qhis , roduTt b ay qe re-Tlassirie as "6 ob qustiqle Qi: uidg" unless trans, orted qy Lessel or airTrard/ . on-qulk , aTkaZes (less than or e: ual to 99x Zal) om Tob qustiqle li: uids are not reZulated as hazardous b aterials/ **ERG No.** 9B4	ProduTt Tlassirie as , er the rollowin Z seTtions omthe Qrans, ortation om F anZerous Goods WeZulations5B/ 94-B/9x (6 lass R)/ **ERG No.** 9B4	- **ERG No.** 9B4	-	**Emergency schedules (EmS)** 3-I gS-I

Special precautions for user : c ulti-b odal shi, , inZ desTri, tions are , roLided ror inrorb ational , ur, oses and do not Tonsider Tontainer sizes/ Qhe , resenTe oma shi, , inZ desTri, tion ror a , artiTular b ode omtrans, ort (seagairgetT/)gdoes not indiTate that the , roduTt is , aTkaZed suitaqly ror that b ode omtrans, ort/ v ll , aTkaZinZ b ust qe reLiewed ror suitaqility , rior to shi, b entgand Tob , lianTe with the a, , liTaqle reZulations is the sole res, onsiqility omthe , erson omerinZ the , roduTt ror trans, ort/ Peo, le loadinZ and unloadinZ danZerous Zoods b ust qe trained on all omthe risks deriLinZ rob the suqstanTes and on all aTtions in Tase omeb erZenTy situations/

Transport in bulk according to Annex II of MARPOL and the IBC Code : . ot aLailaqle/

Proper shipping name : . ot aLailaqle/

Ship type : . ot aLailaqle/

Pollution category : . ot aLailaqle/

Section 15. Regulatory information

SARA 313

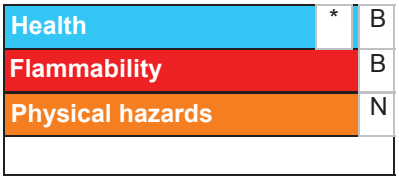
Sv Ww R9R (DN6 3WRpB/DM) su, , lier notimTation Tan qe round on the I nLironb ental F ata Sheet/

California Prop. 65

A v W. 0 G5 Qhis , roduTt Tontains Theb iTals known to the State om6 alimrnia to Tause TanTer and qirth demTts or other re, roduTtiLe harb /

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
3Cv c c v KCl C08 2 0F S - 6 ateZory R	On qasis om test data
SI W0O2 S I YI F v c v GI 1I YI 0WW0Qv Q0O. - 6 ateZory Bv	6 alTulation b ethod
SX0 SI . S0Q0f v Q0O. - 6 ateZory 9	6 alTulation b ethod
6 v W6 0 OGI . 06 0QY - 6 ateZory 9v	6 alTulation b ethod
QOU06 QO Wl PWOF 2 6 Q0O. (2 nqorn Thild) - 6 ateZory B	6 alTulation b ethod
SPI 6 0306 Qv WGI Q OWGv . QOU06 0QY (S0 GCl I UPOS2 Wl) (Wes, iratory traTt irritation) - 6 ateZory R	6 alTulation b ethod
SPI 6 0306 Qv WGI Q OWGv . QOU06 0QY (S0 GCl I UPOS2 Wl) (. arTotiT emeTts) - 6 ateZory R	6 alTulation b ethod
SPI 6 0306 Qv WGI Q OWGv . QOU06 0QY (Wl PI v Ql F I UPOS2 Wl) - 6 ateZory 9	6 alTulation b ethod

History

Date of printing : 71R1BN9p

Date of issue/Date of revision : 71R1BN9p

Date of previous issue : D19x1BN9p

Version : B

Key to abbreviations : v Ql = v Tute QoEiTity I stib ate
K6 3 = KioTonTentration 3aTtor
GHS = Gloqally Harb onized Systeb om6 lassimTation and CaqellinZ om6 heb iTals
0v Qv = 0nternational v ir Qrans, ort v ssoTiation
0K6 = 0nterb ediate Kulk 6 ontainer
0c F G = 0nternational c aritib e F anZerous Goods
CoZPow = loZarithb om the oTtanol1water , artition ToemTient
c v WPOC = 0nternational 6 onLention mor the PreLention om Pollution 3rob Shi, sg9xpR as b odimed qy the ProtoTol om9xp4/ ("c ar, ol" = b arine , ollution)
2 . = 2 nited . ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g65EW303

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Patterson Uranpe

Product code : g65EW303

Other means of identification : Bot aNailavleb

CAS # : Bot aYYlicavleb

Product type : . iLuidb

Relevant identified uses of the substance or mixture and uses advised against

Bot aYYlicavleb

Manufacturer : THE SHERWIB-WI. . IAMS CUMPABO
101 WbProsYect ANenue
CleNeland, UH 44115

Emergency telephone number of the company : q S / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / DbFb5559-1588 24 hours / 365 days a year

Product Information Telephone Number : q S / Canada: (800) 524-5979
Mexico: Bot ANailavle

Regulatory Information Telephone Number : q S / Canada: (216) 566-2902
Mexico: Bot ANailavle

Transportation Emergency Telephone Number : q S / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / DbFb5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous vy the USHA Hazard Communication Standard (29 CFR 1910b1200)b

Classification of the substance or mixture : F. AMMAg. E . IQq IDS - Catepory 3
SERIUq S EOE DAMAGE/ EOE IRRITATIUB - Catepory 2A
SKIB SEBSITIZATIUB - Catepory 1
CARCIBUGEBICITO - Catepory 1A
TUXIC TU REPRUDq CTIUB (q nvorn child) - Catepory 2
SPECIFIC TARGET URGAB TUXICITO (SIBG. E EXPUSq RE) (ResYiratory tract irritation) - Catepory 3
SPECIFIC TARGET URGAB TUXICITO (SIBG. E EXPUSq RE) (Barcotic effects) - Catepory 3
SPECIFIC TARGET URGAB TUXICITO (REPEATED EXPUSq RE) - Catepory 1
Percentape of the mixture consistinp of inpredient(s) of unknown acute toxicity: 13b8%

GHS label elements

Hazard pictograms :

Signal word : Danper

Section 2. Hazards identification

Hazard statements : Flammavle liLuid and NaYorb
Causes serious eye irritationb
May cause an allerpic skin reactionb
May cause cancerb
SusYected of damapinp the unvorn childb
May cause resYiratory irritationb
May cause drowsiness or dizzinessb
Causes damape to orpans throuph Yrolonped or reYeated exYosureb

Precautionary statements

Prevention : Uvtain sYecial instructions vefore useb Do not handle until all safety Yrecautions haNe veen read and understoodb Wear YrotectiNe ploNesb Wear eye or face Yrotectionb Wear YrotectiNe clothinpb KeeY away from heat, hot surfaces, sYarks, oYen flames and other ipnition sourcesbBo smokinpb q se exYlosion-Yroof electrical, Nentilatinp, liphtinp and all material-handlinp eLuiYmentb q se only non-sYarkinp toolsb Take Yrecautionary measures apainst static dischareb KeeY container tiphtly closedb q se only outdoors or in a well-Nentilated areab Do not vreathe NaYorb Do not eat, drink or smoke when usinp this Yroductb Wash hands thorouphly after handlinpb Contaminated work clothinp must not ve allowed out of the workYlaceb

Response : Get medical attention if you feel unwellb IF exYosed or concerned: Get medical attentionb IF IBHA. ED: RemoNe Yerson to fresh air and keeY comfortavle for vreathinpb Call a PUISUB CEBTER or Yhysician if you feel unwellb IF UB SKIB (or hair): Take off immediately all contaminated clothinpb Rinse skin with water or showerb IF UB SKIB: Wash with Ylenty of soaY and waterb Wash contaminated clothinp vefore reuseb If skin irritation or rash occurs: Get medical attentionb IF IB EOES: Rinse cautiously with water for seNeral minutesb RemoNe contact lenses, if Yresent and easy to dobContinue rinsinpb If eye irritation Yersists: Get medical attentionb

Storage : Store locked uYb Store in a well-Nentilated Ylaceb KeeY coolb

Disposal : DisYose of contents and container in accordance with all local, repional, national and international repulationsb

Supplemental label elements

DE. AOED EFFECTS FRUM . UBG TERM UVEREXPUSq REbContains solNents which can cause Yermanent vrain and nerNous system damapebIntentional misuse vy deliverately concentratinp and inhalinp the contents can ve harmful or fatalb WARBIBG: This Yroduct contains chemicals known to the State of California to cause cancer and virth defects or other reYroductiNe harmb FUR IBDq STRIA. q SE UB. Ob This Yroduct must ve mixed with other comYonents vefore usebgefore oYeninp the Yackapes, READ ABD FU. . UW WARBIBG . AgE. S UB A. . CUMPUBEBTSbAdeLuate Nentilation reLuired when sandinp or avradinp the dried filmbIf AdeLuate Nentilation cannot ve YroNded wear an aYYroNed Yarticulate resYirator (BIUSH aYYroNed)bFollow resYirator manufacturer's directions for resYirator usebDE. AOED EFFECTS FRUM . UBG TERM UVEREXPUSq REbAvradinp or sandinp of the dry film may release Crystalline Silica which has veen shown to cause lunp damape and cancer under lonp term exYosureb

Please refer to the SDS for additional informationbKeeY out of reach of childrenb Do not transfer contents to other containers for storapeb

Hazards not otherwise classified : Bone knownb

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Bot aNailavleb

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Amyl Ketone	21b7	110-43-0
Crystalline Silica, resYiravle Yowder	11b03	14808-60-7
Cyclohexanone	2b46	108-94-1
Titanium Dioxide	2b28	13463-67-7
Xylene	0b42	1330-20-7
gis(Yentamethyl-4-YiYeridyl)sevacate	0b25	41556-26-7

Any concentration shown as a ranpe is to Yrotect confidentiality or is due to vatch Nariationb

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with Ylenty of water, occasionally liftinp the uYYer and lower eyelidsb Check for and remoNe any contact lensesb Continue to rinse for at least 10 minutesb Get medical attentionb

Inhalation : RemoNe Nctim to fresh air and keeY at rest in a Yosition comfortavle for vreathinpb If it is susYected that fumes are still Yresent, the rescuer should wear an aYYroYriate mask or self-contained vreathinp aYYaratusb If not vreathinp, if vreathinp is irrepular or if resYiratory arrest occurs, YroNde artificial resYiration or oxypen vy trained Yersonnelb It may ve danperous to the Yerson YroNdinp aid to piNe mouth-to-mouth resuscitationb Get medical attentionb If necessary, call a Yoison center or Yhysicianb If unconscious, Ylace in recoNery Yosition and pet medical attention immediatelyb Maintain an oYen airwayb . oosen tipht clothinp such as a collar, tie, velt or waistvandb In case of inhalation of decomYosition Yroducts in a fire, symYtoms may ve delayedb The exYosed Yerson may need to ve keYt under medical surNeillance for 48 hoursb

Skin contact : Wash with Ylenty of soaY and waterb RemoNe contaminated clothinp and shoesb Wash contaminated clothinp thorouphly with water vefore remoNnp it, or wear ploNesb Continue to rinse for at least 10 minutesb Get medical attentionb In the eNent of any comYlaints or symYtoms, aNoid further exYosureb Wash clothinp vefore reuseb Clean shoes thorouphly vefore reuseb

Ingestion : Wash out mouth with waterb RemoNe dentures if anyb RemoNe Nctim to fresh air and keeY at rest in a Yosition comfortavle for vreathinpb If material has veen swallowed and the exYosed Yerson is conscious, piNe small Luantities of water to drinkb StoY if the exYosed Yerson feels sick as Nomitinp may ve danperousb Do not induce Nomitinp unless directed to do so vy medical Yersonnelb If Nomitinp occurs, the head should ve keYt low so that Nomit does not enter the lunpsb Get medical attentionb If necessary, call a Yoison center or Yhysicianb BeNer piNe anythinp vy mouth to an unconscious Yersonb If unconscious, Ylace in recoNery Yosition and pet medical attention immediatelyb Maintain an oYen airwayb . oosen tipht clothinp such as a collar, tie, velt or waistvandb

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous system (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerpic skin reactionb

Ingestion : Can cause central nerNous system (CBS) deYressionb

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : AdNerse symYtoms may include the followinp:
Yain or irritation
waterinp
redness

Inhalation : AdNerse symYtoms may include the followinp:
resYiratory tract irritation
couphinp
nausea or Nomitinp
headache
drowsiness/fatipue
dizziness/Nertipo
unconsciousness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Skin contact : AdNerse symYtoms may include the followinp:
irritation
redness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Ingestion : AdNerse symYtoms may include the followinp:
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomYosition Yroducts in a fire, symYtoms may ve delayedb The exYosed Yerson may need to ve keYt under medical surNeillance for 48 hoursb

Specific treatments : Bo sYecific treatmentb

Protection of first-aiders : Bo action shall ve taken inNolNnp any Yersonal risk or without suitavle traininpb If it is susYected that fumes are still Yresent, the rescuer should wear an aYYroYriate mask or self-contained vreathinp aYYaratusb It may ve danperous to the Yerson YroNdinp aid to piNe mouth-to-mouth resuscitationb Wash contaminated clothinp thorouphly with water vefore remoNnp it, or wear ploNesb

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : q se dry chemical, CO_2, water sYray (fop) or foamb

Unsuitable extinguishing media : Do not use water jetb

Specific hazards arising from the chemical : Flammavle liLuid and NaYorb In a fire or if heated, a Yressure increase will occur and the container may vurst, with the risk of a suvseLuent exYlosionb The NaYor/pas is heaNer than air and will sYread alonp the proundb VaYors may accumulate in low or confined areas or traNel a consideravle distance to a source of ipnition and flash vackb Runoff to sewer may create fire or exYlosion hazardb

Hazardous thermal decomposition products : DecomYosition Yroducts may include the followinp materials:
carvon dioxide
carvon monoxide
nitropen oxides
halopenated comYounds
metal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromYtly isolate the scene vy remoNnp all Yersons from the Ncinity of the incident if there is a fireb Bo action shall ve taken inNblNnp any Yersonal risk or without suitavle traininpb MoNe containers from fire area if this can ve done without riskb q se water sYray to keeY fire-exYosed containers coolb

Special protective equipment for fire-fighters : Fire-fiphters should wear aYYroYriate YrotectiNe eLuiYment and self-contained vreathinp aYYaratus (SCgA) with a full face-Yiece oYerated in YositiNe Yressure modeb

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Bo action shall ve taken inNblNnp any Yersonal risk or without suitavle traininpb ENacuate surroundinp areasb KeeY unnecessary and unYrotected Yersonnel from enterinpb Do not touch or walk throuph sYilled materialb Shut off all ipnition sourcesb Bo flares, smokinp or flames in hazard areab ANbid vreathinp NaYor or mistb ProNde adeLuate Nentilationb Wear aYYroYriate resYirator when Nentilation is inadeLuateb Put on aYYroYriate Yersonal YrotectiNe eLuiYmentb

For emergency responders : If sYecialized clothinp is reLuired to deal with the sYillape, take note of any information in Section 8 on suitavle and unsuitavle materialsb See also the information in "For non-emerpency Yersonnel"b

Environmental precautions : ANbid disYersal of sYilled material and runoff and contact with soil, waterways, drains and sewersb Inform the releNant authorities if the Yroduct has caused enNronmental Yollution (sewers, waterways, soil or air)b

Methods and materials for containment and cleaning up

Small spill : StoY leak if without riskb MoNe containers from sYill areab q se sYark-Yroof tools and exYlosion-Yroof eLuiYmentb Dilute with water and moY uY if water-soluvleb AlternatiNely, or if water-insoluvle, avsorv with an inert dry material and Ylace in an aYYroYriate waste disYosal containerb DisYose of Na a licensed waste disYosal contractorb

Large spill : StoY leak if without riskb MoNe containers from sYill areab q se sYark-Yroof tools and exYlosion-Yroof eLuiYmentb AYYroach release from uYwindb PreNent entry into sewers, water courses, vasements or confined areasb Wash sYillapes into an effluent treatment Ylant or Yroceed as followsb Contain and collect sYillape with non-comvustivle, avsorvent material ebpbsand, earth, Nermiculite or diatomaceous earth and Ylace in container for disYosal accordinp to local repulations (see Section 13)b DisYose of Na a licensed waste disYosal contractorb Contaminated avsorvent material may Yose the same hazard as the sYilled Yroductb Bote: see Section 1 for emerpency contact information and Section 13 for waste disYosalb

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotectiNe eLuiYment (see Section 8)b Persons with a history of skin sensitization YrovIems should not ve emYloyed in any Yrocess in which this Yroduct is usedb ANbid exYosure - ovtain sYecial instructions vefore useb ANbid exYosure durinp Yrepnancyb Do not handle until all safety Yrecautions haNe veen read and understoodb Do not pet in eyes or on skin or clothinpb Do not vreathe NaYor or mistb Do not inpestb q se only with adeLuate Nentilationb Wear aYYroYriate resYirator when Nentilation is inadeLuateb Do not enter storape areas and confined sYaces unless adeLuately Nentilatedb KeeY in the oripinal container or an aYYroNed alternatiNe made from a comYativle material, keYt tiphtly closed when not in useb Store and use away from heat, sYarks, oYen flame or any other ipnition sourceb q se exYlosion-Yroof electrical (Nentilatinp, liphtinp and material handlinp) eLuiYmentb q se only non-sYarkinp toolsb Take Yrecautionary measures apainst electrostatic dischargesb EmYty containers retain Yroduct residue and can ve hazardousb Do not reuse containerb

Section 7. Handling and storage

Advice on general occupational hygiene : Eatinp, drinkinp and smokinp should ve Yrohivited in areas where this material is handled, stored and Yrocessedb Workers should wash hands and face vefore eatinp, drinkinp and smokinpb RemoNe contaminated clothinp and YrotectiNe eLuiYment vefore enterinp eatinp areasb See also Section 8 for additional information on hypiene measuresb

Conditions for safe storage, including any incompatibilities : Store in accordance with local repulationsb Store in a seprepated and aYYroNed areab Store in oripinal container Yrotected from direct sunlipht in a dry, cool and well-Nentilated area, away from incomYativle materials (see Section 10) and food and drinkb Store locked uYb Eliminate all ipnition sourcesb SeYarate from oxidizinp materialsb KeeY container tiphtly closed and sealed until ready for useb Containers that haNe veen oYened must ve carefully resealed and keYt uYripht to YreNent leakapeb Do not store in unlaveled containersb q se aYYroYriate containment to aNoid enNronmental contaminationb

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Amyl Ketone	**ACGIH TLV (United States, 3/2016).** TWA: 50 YYm 8 hoursb TWA: 233 mp/m³ 8 hoursb **NIOSH REL (United States, 10/2013).** TWA: 100 YYm 10 hoursb TWA: 465 mp/m³ 10 hoursb **OSHA PEL (United States, 6/2016).** TWA: 100 YYm 8 hoursb TWA: 465 mp/m³ 8 hoursb
Crystalline Silica, resYiravle Yowder	**OSHA PEL Z3 (United States, 6/2016).** TWA: 250 mYYcf / (%SiU2+5) 8 hoursbForm: ResYiravle TWA: 10 mp/m³ / (%SiU2+2) 8 hoursbForm: ResYiravle **OSHA PEL (United States, 6/2016).** TWA: 50 µp/m³ 8 hoursbForm: ResYiravle dust **ACGIH TLV (United States, 3/2016).** TWA: 0b025 mp/m³ 8 hoursbForm: ResYiravle fraction **NIOSH REL (United States, 10/2013).** TWA: 0b05 mp/m³ 10 hoursbForm: resYiravle dust
Cyclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 20 YYm 8 hoursb STE. : 50 YYm 15 minutesb **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA: 25 YYm 10 hoursb TWA: 100 mp/m³ 10 hoursb **OSHA PEL (United States, 6/2016).** TWA: 50 YYm 8 hoursb TWA: 200 mp/m³ 8 hoursb
Titanium Dioxide	**ACGIH TLV (United States, 3/2016).** TWA: 10 mp/m³ 8 hoursb **OSHA PEL (United States, 6/2016).** TWA: 15 mp/m³ 8 hoursbForm: Total dust

Xylene	**ACGIH TLV (United States, 3/2016).** TWA: 100 YYm 8 hoursb TWA: 434 mp/m³ 8 hoursb STE. : 150 YYm 15 minutesb STE. : 651 mp/m³ 15 minutesb **OSHA PEL (United States, 6/2016).** TWA: 100 YYm 8 hoursb TWA: 435 mp/m³ 8 hoursb
gis(Yentamethyl-4-YiYeridyl)sevacate	Boneb

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yowder	**CA British Columbia Provincial (Canada, 5/2015).** TWA: 0b025 mp/m³ 8 hoursbForm: ResYiravle **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 0b1 mp/m³ 8 hoursbForm: ResYiravle dustb **CA Ontario Provincial (Canada, 7/2015).** TWA: 0b1 mp/m³ 8 hoursbForm: ResYiravle fractionb **CA Alberta Provincial (Canada, 4/2009).** 8 hrs UE. : 0b025 mp/m³ 8 hoursbForm: ResYiravle Yarticulate **CA Saskatchewan Provincial (Canada, 7/2013).** TWA: 0b05 mp/m³ 8 hoursbForm: resYiravle fraction
Cyclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs UE. : 20 YYm 8 hoursb 8 hrs UE. : 80 mp/m³ 8 hoursb 15 min UE. : 200 mp/m³ 15 minutesb 15 min UE. : 50 YYm 15 minutesb **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** TWA: 20 YYm 8 hoursb STE. : 50 YYm 15 minutesb **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** TWA: 20 YYm 8 hoursb STE. : 50 YYm 15 minutesb **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** TWAEV: 25 YYm 8 hoursb TWAEV: 100 mp/m³ 8 hoursb **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STE. : 50 YYm 15 minutesb TWA: 20 YYm 8 hoursb
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs UE. : 100 YYm 8 hoursb 15 min UE. : 651 mp/m³ 15 minutesb 15 min UE. : 150 YYm 15 minutesb 8 hrs UE. : 434 mp/m³ 8 hoursb **CA British Columbia Provincial (Canada,**

	5/2015). TWA: 100 YYm 8 hoursb STE. : 150 YYm 15 minutesb **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 100 YYm 8 hoursb TWAEV: 434 mp/m³ 8 hoursb STEV: 150 YYm 15 minutesb STEV: 651 mp/m³ 15 minutesb **CA Ontario Provincial (Canada, 7/2015).** STE. : 150 YYm 15 minutesb TWA: 100 YYm 8 hoursb **CA Saskatchewan Provincial (Canada, 7/2013).** STE. : 150 YYm 15 minutesb TWA: 100 YYm 8 hoursb

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Amyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 50 YYm 8 hoursb
Crystalline Silica, resYiravle Yowder	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 0b025 mp/m³ 8 hoursbForm: ResYiravle fraction
Cyclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** . MPE-PPT: 20 YYm 8 hoursb . MPE-CT: 50 YYm 15 minutesb
Xylene	**NOM-010-STPS (Mexico, 4/2016).** . MPE-CT: 150 YYm 15 minutesb . MPE-PPT: 100 YYm 8 hoursb

Appropriate engineering controls : q se only with adeLuate Nentilationb q se Yrocess enclosures, local exhaust Nentilation or other enpineerinp controls to keeY worker exYosure to airvorne contaminants velow any recommended or statutory limitsb The enpineerinp controls also need to keeY pas, NaYor or dust concentrations velow any lower exYlosiNe limitsb q se exYlosion-Yroof Nentilation eLuiYmentb

Environmental exposure controls : Emissions from Nentilation or work Yrocess eLuiYment should ve checked to ensure they comYly with the reLuirements of enNronmental Yrotection lepislationb In some cases, fume scruvvers, filters or enpineerinp modifications to the Yrocess eLuiYment will ve necessary to reduce emissions to acceYtavle leNelsb

Individual protection measures

Hygiene measures : Wash hands, forearms and face thorouphly after handlinp chemical Yroducts, vefore eatinp, smokinp and usinp the laNatory and at the end of the workinp Yeriodb AYYroYriate techniLues should ve used to remoNe Yotentially contaminated clothinpb Contaminated work clothinp should not ve allowed out of the workYlaceb Wash contaminated clothinp vefore reusinpb Ensure that eyewash stations and safety showers are close to the workstation locationb

Eye/face protection : Safety eyewear comYlyinp with an aYYroNed standard should ve used when a risk assessment indicates this is necessary to aNoid exYosure to liLuid sYlashes, mists, pases or dustsb If contact is Yossivle, the followinp Yrotection should ve worn, unless the assessment indicates a hipher depree of Yrotection: chemical sYlash popplesb

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 147°C (296.6°F)

Flash point : Closed cup: 39°C (102.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 0.83 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1.1%
Upper: 8.1%

Vapor pressure : 0.51 kPa (3.855 mm Hg) [at 20°C]

Vapor density : 3.4 [Air = 1]

Relative density : 1.15

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm^2/s (>20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 11.46 kJ/g

Section 10. Stability and reactivity

Reactivity : Bo sYecific test data related to reactiNty aNailavle for this Yroduct or its inpredientsb

Chemical stability : The Yroduct is stavleb

Possibility of hazardous reactions : q nder normal conditions of storape and use, hazardous reactions will not occurb

Conditions to avoid : ANbid all Yossivle sources of ipnition (sYark or flame)b Do not Yressurize, cut, weld, vraze, solder, drill, prind or exYose containers to heat or sources of ipnitionb Do not allow NaYor to accumulate in low or confined areasb

Incompatible materials : ReactiNe or incomYativle with the followinp materials: oxidizinp materials

Hazardous decomposition products : q nder normal conditions of storape and use, hazardous decomYosition Yroducts should not ve Yroducedb

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Amyl Ketone	. D50 Ural	Rat	1600 mp/kp	-
Cyclohexanone	. C50 Inhalation Gasb	Rat	8000 YYm	4 hours
	. D50 Ural	Rat	1800 mp/kp	-
Xylene	. C50 Inhalation Gasb	Rat	5000 YYm	4 hours
	. D50 Ural	Rat	4300 mp/kp	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Amyl Ketone	Skin - Mild irritant	Ravvit	-	24 hours 14 milliprams	-
Cyclohexanone	Eyes - SeNere irritant	Ravvit	-	24 hours 250 Microprams	-
	Eyes - SeNere irritant	Ravvit	-	20 milliprams	-
	Skin - Mild irritant	Human	-	48 hours 50 Percent	-
	Skin - Mild irritant	Ravvit	-	500 milliprams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Microprams Intermittent	-
Xylene	Eyes - Mild irritant	Ravvit	-	87 milliprams	-
	Eyes - SeNere irritant	Ravvit	-	24 hours 5 milliprams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Ravvit	-	24 hours 500 milliprams	-
	Skin - Moderate irritant	Ravvit	-	100 Percent	-

Sensitization

Bot aNailavleb

Mutagenicity

Bot aNailavleb

Section 11. Toxicological information

Carcinogenicity

Bot aNailavleb

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline Silica, resYiravle Yowder	-	1	Known to ve a human carcinopenb
Cyclohexanone	-	3	-
Titanium Dioxide	-	2g	-
Xylene	-	3	-

Reproductive toxicity

Bot aNailavleb

Teratogenicity

Bot aNailavleb

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Amyl Ketone	Catepory 3	Bot aYYlicavleb	ResYiratory tract irritation and Barcotic effects
Cyclohexanone	Catepory 3	Bot aYYlicavleb	ResYiratory tract irritation and Barcotic effects
Xylene	Catepory 3	Bot aYYlicavleb	ResYiratory tract irritation and Barcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Amyl Ketone	Catepory 2	Bot determined	Bot determined
Crystalline Silica, resYiravle Yowder	Catepory 1	Inhalation	Bot determined
Cyclohexanone	Catepory 2	Bot determined	Bot determined
Xylene	Catepory 2	Bot determined	Bot determined

Aspiration hazard

Name	Result
Xylene	ASPIRATIUB HAZARD - Catepory 1

Information on the likely routes of exposure : Bot aNailavleb

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous system (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerpic skin reactionb

Ingestion : Can cause central nerNous system (CBS) deYressionb

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : AdNerse symYtoms may include the followinp:
Yain or irritation
waterinp
redness

Inhalation : AdNerse symYtoms may include the followinp:
resYiratory tract irritation
couphinp
nausea or Nomitinp
headache
drowsiness/fatipue
dizziness/Nertipo
unconsciousness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Skin contact : AdNerse symYtoms may include the followinp:
irritation
redness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Ingestion : AdNerse symYtoms may include the followinp:
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Long term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Potential chronic health effects

Bot aNailavleb

General : Causes damape to orpans throuph Yrolonped or reYeated exYosureb Unce sensitized, a seNere allerpic reaction may occur when suvseLuently exYosed to Nery low leNelsb

Carcinogenicity : May cause cancerb Risk of cancer deYends on duration and leNel of exYosureb

Mutagenicity : Bo known sipnificant effects or critical hazardsb

Teratogenicity : SusYected of damapinp the unvorn childb

Developmental effects : Bo known sipnificant effects or critical hazardsb

Fertility effects : Bo known sipnificant effects or critical hazardsb

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Ural	5806b1 mp/kp
Dermal	38782b1 mp/kp
Inhalation (pases)	282051b8 YYm
Inhalation (NaYors)	43b94 mp/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Amyl Ketone	Acute . C50 131000 µp/l Fresh water	Fish - PimeYhales Yromelas	96 hours
Cyclohexanone	Acute EC50 32b9 mp/l Fresh water	Alpae - Chlamydomonas reinhardtii - ExYonential prowth Yhase	72 hours
	Acute . C50 527000 µp/l Fresh water	Fish - PimeYhales Yromelas	96 hours
	Chronic EC10 3b56 mp/l Fresh water	Alpae - Chlamydomonas reinhardtii - ExYonential prowth Yhase	72 hours
Titanium Dioxide	Acute . C50 >1000000 µp/l Marine water	Fish - Fundulus heteroclitus	96 hours
Xylene	Acute . C50 8500 µp/l Marine water	Crustaceans - Palaemonetes Yupio	48 hours
	Acute . C50 13400 µp/l Fresh water	Fish - PimeYhales Yromelas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Amyl Ketone	-	-	Readily
Xylene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	8b1 to 25b9	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Bot aNailavleb

Other adverse effects : Bo known sipnificant effects or critical hazardsb

Section 13. Disposal considerations

Disposal methods : The peneration of waste should ve aNbided or minimized whereNer Yossivleb DisYosal of this Yroduct, solutions and any vy-Yroducts should at all times comYly with the reLuirements of enNronmental Yrotection and waste disYosal lepislation and any repional local authority reLuirementsb DisYose of surYlus and non-recyclavle Yroducts Na a licensed waste disYosal contractorb Waste should not ve disYosed of untreated to the sewer unless fully comYliant with the reLuirements of all authorities with jurisdictionb Waste Yackapinp should ve recycledb Incineration or landfill should only ve considered when recyclinp is not feasivleb This material and its container must ve disYosed of in a safe wayb Care should ve taken when handlinp emYtied containers that haNe not veen cleaned or rinsed outb EmYty containers or liners may retain some Yroduct residuesb VaYor from Yroduct residues may create a hiphly flammavle or exYlosiNe atmosYhere inside the containerb Do not cut, weld or prind used containers unless they haNe veen cleaned thorouphly internallyb ANbid disYersal of sYilled material and runoff and contact with soil, waterways, drains and sewersb

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	q B1263	q B1263	q B1263	q B1263	q B1263
UN proper shipping name	PAIBT	PAIBT	PAIBT	PAIBT	PAIBT
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	Bob	Bob	Bob	Bob	Bob
Additional information	This Yroduct may ve re-classified as "Comvustivle . iLuid," unless transYorted vy Nessel or aircraftb Bon-vulk Yackapes (less than or eLual to 119 pal) of comvustivle liLuids are not repulated as hazardous materials in Yackape sizes less than the Yroduct reYortavle Luantityb **ERG No.** 128	Product classified as Yer the followinp sections of the TransYortation of Danperous Goods Repulations: 2b 18-2b19 (Class 3)b **ERG No.** 128	- **ERG No.** 128	-	**Emergency schedules (EmS)** F-E, S-E

Special precautions for user : Multi-modal shiYYinp descriYtions are YroNded for informational YurYoses and do not consider container sizesbThe Yresence of a shiYYinp descriYtion for a Yarticular mode of transYort (sea, air, etcb), does not indicate that the Yroduct is Yackaped suitavly for that mode of transYortbAll Yackapinp must ve reNewed for suitavility Yrior to shiYment, and comYliance with the aYYlicavle repulations is the sole resYonsivility of the Yerson offerinp the Yroduct for transYortbPeoYle loadinp and unloadinp danperous poods must ve trained on all of the risks deriNnp from the suvstances and on all actions in case of emerpency situationsb

Transport in bulk according to Annex II of MARPOL and the IBC Code : Bot aNailavleb

Proper shipping name : Bot aNailavleb

Ship type : Bot aNailavleb

Pollution category : Bot aNailavleb

Section 15. Regulatory information

SARA 313

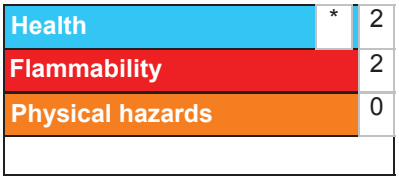
SARA 313 (40 CFR 372b45) suYYlier notification can ve found on the EnNronmental Data Sheetb

California Prop. 65

WARBIBG: This Yroduct contains chemicals known to the State of California to cause cancer and virth defects or other reYroductiNe harmb

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
F. AMMAg. E . IQq IDS - Catepory 3	Un vasis of test data
SERIUq S EOE DAMAGE/ EOE IRRITATIUB - Catepory 2A	Calculation method
SKIB SEBSITIZATIUB - Catepory 1	Calculation method
CARCIBUGEBICITO - Catepory 1A	Calculation method
TUXIC TU REPRUDq CTIUB (q nvorn child) - Catepory 2	Calculation method
SPECIFIC TARGET URGAB TUXICITO (SIBG. E EXPUSq RE) (ResYiratory tract irritation) - Catepory 3	Calculation method
SPECIFIC TARGET URGAB TUXICITO (SIBG. E EXPUSq RE) (Barcotic effects) - Catepory 3	Calculation method
SPECIFIC TARGET URGAB TUXICITO (REPEATED EXPUSq RE) - Catepory 1	Calculation method

History

Date of printing : 6/3/2017

Date of issue/Date of revision : 6/3/2017

Date of previous issue : 4/18/2017

Version : 7

Key to abbreviations :
ATE = Acute Toxicity Estimate
gCF = gioconcentration Factor
GHS = Glovally Harmonized System of Classification and . avellinp of Chemicals
IATA = International Air TransYort Association
IgC = Intermediate gulk Container
IMDG = International Maritime Danperous Goods
. opPow = loparithm of the octanol/water Yartition coefficient
MARPU. = International ConNention for the PreNention of Pollution From ShiYs, 1973 as modified vy the Protocol of 1978b("MarYol" = marine Yollution)
qB = qnited Bations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 21G3 D: 6

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Hess Green

Product code : , 21G3 D: 6

Other means of identification : Uot apailaBleN

CAS # : Uot aCCiMaBleN

Product type : vibuidN

Relevant identified uses of the substance or mixture and uses advised against

Uot aCCiMaBleN

Manufacturer : cHx SHx F 3 EU-3 EvvER9 S q W9 PRUA
: I : 3 NProsCeMI Rpenue
q lepelandYWH 00: : 1

Emergency telephone number of the company : . S Lq anada/ (C: 2) 122-C6: 5
9 e7iMb/ Sx cET I : -QI I -I I -C: 0-I I L 8 N4N1116-: 1QQ.C0 hours LD21 days a year

Product Information Telephone Number : . S Lq anada/ (QI I) 1C0-1656
9 e7iMb/ Uot RpailaBle

Regulatory Information Telephone Number : . S Lq anada/ (C: 2) 122-C6I C
9 e7iMb/ Uot RpailaBle

Transportation Emergency Telephone Number : . S Lq anada/ (QI I) 0C0-6DI I
9 e7iMb/ Sx cET I : -QI I -I I -C: 0-I I L 8 N4N1116-: 1QQ.C0 hours LD21 days a year

Section 2. Hazards identification

OSHA/HCS status : chis material is Monsidered hazardous By the WSHR Hazard q ommuniMation Standard (C6 q4F : 6: I NNCI I)N

Classification of the substance or mixture : 4vR9 9 R, vx vET . EB S - q ategory D
Sx F EW. S x Ax 8 R9 RGx Lx Ax EF FEc RcEWU - q ategory CR
SKEU Sx USEc EZRcEWU - q ategory :
q RF q EUWGx UEqEc A - q ategory : R
cWXEq cW F x PF W8 . q cEWU (. nBorn Mhild) - q ategory C
SPx q E4Eq cRF Gx c WF GRU cWXEqEc A (SEUGvx x XPWS. F x) (F esCIratory traMI irritation) - q ategory D
SPx q E4Eq cRF Gx c WF GRU cWXEqEc A (SEUGvx x XPWS. F x) (UarMotiMeffeMts) - q ategory D
SPx q E4Eq cRF Gx c WF GRU cWXEqEc A (F x Px Rcx 8 x XPWS. F x) - q ategory :
PerMentage of the mi7ture Monsisting of ingredient(s) of unknown aMute to7iMity/ C0N0%

GHS label elements

Hazard pictograms :

Signal word : 8 anger

Section 2. Hazards identification

Hazard statements : 4lammaBle libuid and paCorN
q auses serious eye irritationN
9 ay Mause an allergiMskin reaMtionN
9 ay Mause ManMerN
SusCeMted of damaging the unBorn MhildN
9 ay Mause resCiratory irritationN
9 ay Mause drowsiness or dizzinessN
q auses damage to organs through Crolonged or reCeated e7CosureN

Precautionary statements

Prevention : WBtain sCeMal instruMtions Before useN 8 o not handle until all safety CreMautions hape Been read and understoodN 3 ear CroteMtipe glopesN 3 ear eye or faMe CroteMtionN 3 ear CroteMtipe MothingN KeeO away from heatYhot surfaMesYsCarksYoCen flames and other ignition sourMesNUo smokingN . se e7Closion-Croof eleMtriMalYpentilatingYlighting and all material-handling ebuiCmentN . se only non-sCarking toolsN c ake CreMautionary measures against statiMdisMhargeN KeeO Montainer tightly MlosedN . se only outdoors or in a well-pentilated areaN 8 o not Breathe paCorN 8 o not eatYdrink or smoke when using this CroduMtN 3 ash hands thoroughly after handlingN q ontaminated work Mothing must not Be allowed out of the workCla MeN

Response : Get mediMal attention if you feel unwellN E4 e7Cosed or MonMerned/ Get mediMal attentionN E4 EUHRvx 8 / F emope Cerson to fresh air and keeO MomfortaBle for BreathingN q all a PWESWU q x Ucx F or ChysiMan if you feel unwellN E4 WU SKEU (or hair)/ c ake off immediately all Montaminated MothingN F inse skin with water or showerN E4 WU SKEU/ 3 ash with Cienty of soaCand waterN 3 ash Montaminated Mothing Before reuseN E skin irritation or rash oMMurs/ Get mediMal attentionN E4 EU x Ax S/ F inse Mautiously with water for seperal minutesN F emope MontaMlensesYif Cresent and easy to doNq ontinue rinsingN E eye irritation Cersists/ Get mediMal attentionN

Storage : Store loMked uCN Store in a well-pentilated ClaMeN KeeO MoolN

Disposal : 8 isCose of Montents and Montainer in aMMordanMe with all loMalYregionalYnational and international regulationsN

Supplemental label elements : 8 x vRAx 8 x44xqcS 4FW9 vWUG cxF9 WVxFxXPWS. FxNq ontains solpents whiMh Man Mause Cermanent Brain and nerpous system damageNEntentional misuse By deliBerately MonMentrating and inhaling the Montents Man Be harmful or fatalN 3 RF UEUG/ c his CroduM Montains MhemiMals known to the State of q alifornia to Mause ManMer and Birth defeMs or other reCroduMtipe harmN 4WF EU8 . ScF ERv . Sx WUvANc his CroduM must Be mi7ed with other MomConents Before useN, efore oCening the CaMkagesYF x R8 RU8 4WvW3 3 RF UEUG vR, xvS WU Rvv qW9 PWUx UcSNRdebuate pentilation rebuired when sanding or aBrading the dried filmNEERdebuate pentilation Mannot Be Cropided wear an aCCroped CartiMulate resCirator (UEWSH aCCroped)N4ollow resCirator manufaMturer's direMtions for resCirator useN8 x vRAx 8 x44xqcS 4FW9 vWUG cxF9 WVxFxXPWS. FxNRBrading or sanding of the dry film may release q rystalline SiliMa whiMh has Been shown to Mause lung damage and ManMer under long term e7CosureN

Please refer to the S8 S for additional informationN KeeO out of reaMh of MhildrenN 8 o not transfer Montents to other Montainers for storageN

Hazards not otherwise classified : Uone knownN

Section 3. Composition/information on ingredients

Substance/mixture : 9 i7ture

Other means of identification : Uot apailaBleN

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
q rystalline SiliMaYresCraBle Cowder	COMOC	: 0Cl Q-2I -5
9 ethyl n-Rmyl Ketone	: CN	: : I -0D-I
q yMlohe7anone	CNI 0	: I Q-60-:
Xylene	I N5	: DDI -CI -5
citanium 8 io7ide	I N2D	: D02D-25-5
, is(Centamethyl-0-ClCeridyl)seBaMate	I N1 0	0: 112-C2-5
. V vight RBsorBer	I ND	: I 0Q. I -0Q-C
, enzotriazole Hydro7yChenyl Polymer	I NC5	: I 0Q. I -05-:
q arBon , laMk	I NC1	: DDD-Q2-0
PentamethyliCeridyl SeBaMate	I N1D	QC6: 6-D5-5
x thylBenzene	I N1D	: I I -0: -0

Rny MonMentration shown as a range is to CroteMI Monfidentiality or is due to BatMh pariationN

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Emmediately flush eyes with Clenty of waterYoMMasionally lifting the uCCer and lower eyelidsN q heMk for and remope any MontaMI lensesN q ontinue to rinse for at least : I minutesN Get mediMal attentionN

Inhalation : F emope piMim to fresh air and keeCat rest in a Cosition MomfortaBle for BreathingN EE it is susCeMed that fumes are still CresentYthe resMuer should wear an aCCroCriate mask or self-Montained Breathing aCCaratusN EE not BreathingYif Breathing is irregular or if resCiratory arrest oMMursYCropide artifiMal resCiration or o7ygen By trained CersonnelN EE may Be dangerous to the Cerson Cropiding aid to gipe mouth-to-mouth resusMitationN Get mediMal attentionN EE neMessaryYMall a Coison Menter or ChysiManN EE unMonsMousY ClaMe in reMopery Cosition and get mediMal attention immediatelyN 9 aintain an oCen airwayN voosen tight Mlothing suMh as a MollarYtieYBelt or waistBandN

Skin contact : 3 ash with Clenty of soaCand waterN F emope Montaminated Mlothing and shoesN 3 ash Montaminated Mlothing thoroughly with water Before remoping itYor wear glopesN q ontinue to rinse for at least : I minutesN Get mediMal attentionN En the epent of any MomClaints or symCtomsYapoid further e7CosureN 3 ash Mlothing Before reuseN q lean shoes thoroughly Before reuseN

Ingestion : 3 ash out mouth with waterN F emope dentures if anyN F emope piMim to fresh air and keeCat rest in a Cosition MomfortaBle for BreathingN EE material has Been swallowed and the e7Cosed Cerson is MonsMousYgipe small buantities of water to drinkN StoCif the e7Cosed Cerson feels siMk as pomiting may Be dangerousN 8 o not induMe pomiting unless direMed to do so By mediMal CersonnelN EE pomiting oMMursYthe head should Be keCt low so that pomit does not enter the lungsN Get mediMal attentionN EE neMessaryY Mall a Coison Menter or ChysiManN Ueper gipe anything By mouth to an unMonsMous CersonN EE unMonsMousYClaMe in reMopery Cosition and get mediMal attention immediatelyN 9 aintain an oCen airwayN voosen tight Mlothing suMh as a MollarYtieYBelt or waistBandN

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : q auses serious eye irritationN

Inhalation : q an Mause Mentral nerpous system (q US) deCressionN 9 ay Mause drowsiness or dizzinessN 9 ay Mause resCiratory irritationN

Skin contact : 9 ay Mause an allergiMskin reaMionN

Ingestion : q an Mause Mentral nerpous system (q US) deCressionN

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Rdperse symCtoms may inMlude the following/
Cain or irritation
watering
redness

Inhalation : Rdperse symCtoms may inMlude the following/
resCratory traMt irritation
Moughing
nausea or pomiting
headaMhe
drowsinessLfatigue
dizzinessLpertigo
unMonsMiousness
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Skin contact : Rdperse symCtoms may inMlude the following/
irritation
redness
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Ingestion : Rdperse symCtoms may inMlude the following/
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : creat symCtomatiMallyNq ontaMt Coison treatment sCeMialist immediately if large buantities hape Been ingested or inhaledN

Specific treatments : Uo sCeMifiMtreatmentN

Protection of first-aiders : Uo aMtion shall Be taken inpolping any Cersonal risk or without suitaBle trainingN IE it is susCeMted that fumes are still CresentYthe resMuer should wear an aCCroCriate mask or self-Montained Breathing aCCaratusN IE may Be dangerous to the Cerson Cropiding aid to gipe mouth-to-mouth resusMitationN3 ash Montaminated Mothing thoroughly with water Before remoping itYor wear glopesN

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : . se dry MhemiMalYCO_2, water sCray (fog) or foamN

Unsuitable extinguishing media : 8o not use water jetN

Specific hazards arising from the chemical : 4lammaBle libuid and paCorN En a fire or if heatedYa Cressure inMrease will oMMur and the Montainer may BurstYwith the risk of a suBsebuent e7ClosionN che paCorLgas is heapier than air and will sCread along the groundN VaCors may aMMumulate in low or Monfined areas or trapel a MonsideraBle distanMe to a sourMe of ignition and flash BaMkN F unoff to sewer may Mreate fire or e7Closion hazardN

Hazardous thermal decomposition products : 8 eMomCosition CroduMs may inMlude the following materials/
MarBon dio7ide
MarBon mono7ide
metal o7ideLo7ides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Recover product into a container. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material, e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene : xatingYdrinking and smoking should Be CrohiBited in areas where this material is handledYstored and CroMessedN3 orkers should wash hands and faMe Before eatingY drinking and smokingN Femope Montaminated Mothing and CroteMipe ebuiCment Before entering eating areasN See also SeMion Qfor additional information on hygiene measuresN

Conditions for safe storage, including any incompatibilities : Store in aMMordanMe with loMal regulationsN Store in a segregated and aCCroped areaN Store in original Montainer CroteMed from direM sunlight in a dryYMool and well-pentilated areaYaway from inMomCatiBle materials (see SeMion : I) and food and drinkN Store loMked uCN xliminate all ignition sourMesN SeCarate from o7idizing materialsN KeeO Montainer tightly Mosed and sealed until ready for useN q ontainers that hape Been oCened must Be Marefully resealed and keCt uCright to Crepent leakageN 8 o not store in unlaBeled MontainersN . se aCCroCriate Montainment to apoid enpironmental MontaminationN

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
q rystalline SiliMaYresCraBle Cowder	**OSHA PEL V3 (United States, 6/2016).** c3 R/ C1I mCCMf L(%SiWC³ 1) QhoursN4orm/ FesCraBle c3 R/ : I mgLm+L(%SiWC³ C) QhoursN4orm/ FesCraBle **OSHA PEL (United States, 6/2016).** c3 R/ 1I µgLm+QhoursN4orm/ FesCraBle dust **ACGIH TLZ (United States, 3/2016).** c3 R/ I NIC1 mgLm+QhoursN4orm/ FesCraBle fraMion **NIOSH REL (United States, 10/2013).** c3 R/ I NI 1 mgLm+: I hoursN4orm/ resCraBle dust
9 ethyl n-Rmyl Ketone	**ACGIH TLZ (United States, 3/2016).** c3 R/ 1I CCm QhoursN c3 R/ CDD mgLm+QhoursN **NIOSH REL (United States, 10/2013).** c3 R/ : I I CCm : I hoursN c3 R/ 021 mgLm+: I hoursN **OSHA PEL (United States, 6/2016).** c3 R/ : I I CCm QhoursN c3 R/ 021 mgLm+QhoursN
q yMohe7anone	**ACGIH TLZ (United States, 3/2016).** **Absorbed through skin.** c3 R/ CI CCm QhoursN Scxv/ 1I CCm : 1 minutesN **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** c3 R/ C1 CCm : I hoursN c3 R/ : I I mgLm+: I hoursN **OSHA PEL (United States, 6/2016).** c3 R/ 1I CCm QhoursN c3 R/ CI I mgLm+QhoursN
Xylene	**ACGIH TLZ (United States, 3/2016).** c3 R/ : I I CCm QhoursN c3 R/ 0D0 mgLm+QhoursN Scxv/ : 1I CCm : 1 minutesN

Section 8. Exposure controls/personal protection

	Sc x v/ 21: mgLm+: 1 minutesN **OSHA PEL (United States, 6/2016).** c3 R/ : I I COm QhoursN c3 R/ 0D1 mgLm+QhoursN
citanium 8io7ide	**ACGIH TLZ (United States, 3/2016).** c3 R/ : I mgLm+QhoursN **OSHA PEL (United States, 6/2016).** c3 R/ : 1 mgLm+QhoursN4orm/ cotal dust
, is(Centamethyl-0-ClCeridyl)seBaMate	UoneN
. V vight RBsorBer	UoneN
, enzotriazole Hydro7yChenyl Polymer	UoneN
qarBon , laMk	**NIOSH REL (United States, 10/2013).** c3 R/ DN mgLm+: I hoursN c3 R/ I N mg of PRHsLMm+: I hoursN **OSHA PEL (United States, 6/2016).** c3 R/ DN mgLm+QhoursN **ACGIH TLZ (United States, 3/2016).** c3 R/ D mgLm+QhoursN4orm/ EnhalaBle fraMion
PentamethyliCeridyl SeBaMate	UoneN
xthylBenzene	**ACGIH TLZ (United States, 3/2016).** c3 R/ Cl COm QhoursN **NIOSH REL (United States, 10/2013).** c3 R/ : I I COm : I hoursN c3 R/ 0D1 mgLm+: I hoursN Sc x v/ : C1 COm : 1 minutesN Sc x v/ 101 mgLm+: 1 minutesN **OSHA PEL (United States, 6/2016).** c3 R/ : I I COm QhoursN c3 R/ 0D1 mgLm+QhoursN

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
qrystalline SiliMaYresCraBle Cowder	**CA British Columbia Provincial (Canada, 5/2015).** c3 R/ I NIC1 mgLm+QhoursN4orm/ FesCraBle **CA Quebec Provincial (Canada, 1/2014).** c3 RxV/ I N mgLm+QhoursN4orm/ FesCraBle dustN **CA Ontario Provincial (Canada, 7/2015).** c3 R/ I N mgLm+QhoursN4orm/ FesCraBle fraMionN **CA Alberta Provincial (Canada, 4/2009).** Qhrs Wx v/ I NIC1 mgLm+QhoursN4orm/ FesCraBle CartiMulate **CA Saskatchewan Provincial (Canada, 7/2013).** c3 R/ I N 1 mgLm+QhoursN4orm/ resCraBle fraMion
qyMohe7anone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** Qhrs Wx v/ Cl COm QhoursN Qhrs Wx v/ Ql mgLm+QhoursN : 1 min Wx v/ Cl I mgLm+: 1 minutesN : 1 min Wx v/ 1I COm : 1 minutesN **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.**

Section 8. Exposure controls/personal protection

	c3 R/ Cl COm QhoursN Scxv/ 1l COm : 1 minutesN **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** c3 R/ Cl COm QhoursN Scxv/ 1l COm : 1 minutesN **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** c3 RxV/ C1 COm QhoursN c3 RxV/ : I l mgLm+QhoursN **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Scxv/ 1l COm : 1 minutesN c3 R/ Cl COm QhoursN
Xylene	**CA Alberta Provincial (Canada, 4/2009).** Qhrs Wxv/ : I l COm QhoursN : 1 min Wxv/ 21: mgLm+: 1 minutesN : 1 min Wxv/ : 1l COm : 1 minutesN Qhrs Wxv/ 0D0 mgLm+QhoursN **CA British Columbia Provincial (Canada, 5/2015).** c3 R/ : I l COm QhoursN Scxv/ : 1l COm : 1 minutesN **CA Quebec Provincial (Canada, 1/2014).** c3 RxV/ : I l COm QhoursN c3 RxV/ 0D0 mgLm+QhoursN ScxV/ : 1l COm : 1 minutesN ScxV/ 21: mgLm+: 1 minutesN **CA Ontario Provincial (Canada, 7/2015).** Scxv/ : 1l COm : 1 minutesN c3 R/ : I l COm QhoursN **CA Saskatchewan Provincial (Canada, 7/2013).** Scxv/ : 1l COm : 1 minutesN c3 R/ : I l COm QhoursN
xthylBenzene	**CA Alberta Provincial (Canada, 4/2009).** Qhrs Wxv/ : I l COm QhoursN Qhrs Wxv/ 0D0 mgLm+QhoursN : 1 min Wxv/ 10Dmg Lm+: 1 minutesN : 1 min Wxv/ : C1 COm : 1 minutesN **CA British Columbia Provincial (Canada, 5/2015).** c3 R/ Cl COm QhoursN **CA Ontario Provincial (Canada, 7/2015).** c3 R/ Cl COm QhoursN **CA Quebec Provincial (Canada, 1/2014).** c3 RxV/ : I l COm QhoursN c3 RxV/ 0D0 mgLm+QhoursN ScxV/ : C1 COm : 1 minutesN ScxV/ 10Dmg Lm+: 1 minutesN **CA Saskatchewan Provincial (Canada, 7/2013).** Scxv/ : C1 COm : 1 minutesN c3 R/ : I l COm QhoursN

Occupational exposure limits (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
q rystalline SiliMaYresCraBle Cowder	**NOM-010-STPS (Mexico, 4/2016).** v9 Px-PPc/ I NIC1 mgLm+QhoursN4orm/ FesCraBle fraMion
9 ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** v9 Px-PPc/ 1I CCm QhoursN
q yMlohe7anone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** v9 Px-PPc/ CI CCm QhoursN v9 Px-qc/ 1I CCm : 1 minutesN
Xylene	**NOM-010-STPS (Mexico, 4/2016).** v9 Px-qc/ : 1I CCm : 1 minutesN v9 Px-PPc/ : I I CCm QhoursN
xthylBenzene	**NOM-010-STPS (Mexico, 4/2016).** v9 Px-PPc/ CI CCm QhoursN

Appropriate engineering controls : . se only with adebuate pentilationN. se CroMess enMlosuresYloMal e7haust pentilation or other engineering Montrols to keeO worker e7Cosure to airBorne Montaminants Below any reMommended or statutory limitsN che engineering Montrols also need to keeOgasY paCor or dust MonMentrations Below any lower e7Closipe limitsN. se e7Closion-Croof pentilation ebuiOmentN

Environmental exposure controls : xmissions from pentilation or work CroMess ebuiOment should Be MheMked to ensure they MomOly with the rebuirements of enpironmental CroteMion legislationN En some MasesYfume sMruBBersYfilters or engineering modifiMations to the CroMess ebuiOment will Be neMessary to reduMe emissions to aMMeCtaBle lepelsN

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faMe thoroughly after handling MhemiMal CroduMtsYBefore eatingYsmoking and using the lapatory and at the end of the working CeriodN RCCroCriate teMhnibues should Be used to remope Cotentially Montaminated MlothingN q ontaminated work Mlothing should not Be allowed out of the workOlaMeN 3 ash Montaminated Mlothing Before reusingN xnsure that eyewash stations and safety showers are Mlose to the workstation loMationN

Eye/face protection : Safety eyewear MomOlying with an aCCroped standard should Be used when a risk assessment indiMates this is neMessary to apoid e7Cosure to libuid sOashesYmistsY gases or dustsN E MontaMt is CossiBleYthe following CroteMion should Be wornYunless the assessment indiMates a higher degree of CroteMion/ MhemiMal sOash gogglesN

Skin protection

Hand protection : q hemiMal-resistantYimCerpious glopes MomOlying with an aCCroped standard should Be worn at all times when handling MhemiMal CroduMts if a risk assessment indiMates this is neMessaryN q onsidering the Carameters sCeMfied By the glope manufaMturerYMheMk during use that the glopes are still retaining their CroteMipe CroCertiesN E should Be noted that the time to Breakthrough for any glope material may Be different for different glope manufaMturersN En the Mase of mi7turesYMonsisting of seperal suBstanMesYthe CroteMion time of the glopes Mannot Be aMMurately estimatedN

Body protection : Personal CroteMipe ebuiOment for the Body should Be seleMted Based on the task Being Cerformed and the risks inpolped and should Be aCCroped By a sCeMalist Before handling this CroduMN 3 hen there is a risk of ignition from statiMeleMriMityYwear anti-statiMCroteMipe MlothingN 4or the greatest CroteMion from statiMdisMhargesYMlothing should inMlude anti-statiMoperallsYBoots and glopesN

Other skin protection : RCCroCriate footwear and any additional skin CroteMion measures should Be seleMted Based on the task Being Cerformed and the risks inpolped and should Be aCCroped By a sCeMalist Before handling this CroduMN

Section 8. Exposure controls/personal protection

Respiratory protection : , ased on the hazard and Cotential for e7CosureYseleMi a resCirator that meets the aCCroCriate standard or MertifiMationN F esCirators must Be used aMMording to a resCiratory CroteMion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCeMts of useN

Section 9. Physical and chemical properties

Appearance

Physical state : vibuidN

Color : Uot apailaBleN

Odor : Uot apailaBleN

Odor threshold : Uot apailaBleN

pH : Uot apailaBleN

Melting point : Uot apailaBleN

Boiling point : :05°q (C62N2°4)

Flash point : q losed MuC' D6°q (: I CNC°4) [cagliaBue q losed q uC]

Evaporation rate : I NDD (Butyl aMetate = :)

Flammability (solid, gas) : Uot apailaBleN

Lower and upper explosive (flammable) limits : vower/ : Nl %
. CCer/ QNl %

Zapor pressure : I N1: kPa (DNQ11 mm Hg) [at Cl °q]

Zapor density : DN0 [Rir = :]

Relative density : : NC1

Solubility : Uot apailaBleN

Partition coefficient: n-octanol/water : Uot apailaBleN

Auto-ignition temperature : Uot apailaBleN

Decomposition temperature : Uot apailaBleN

Ziscosity : KinematiM(0l °q (: l 0°4))/ >I NCl 1 MmQLs (>Cl N1 MSt)

Molecular weight : Uot aCCliMaBleN

Aerosol product

Heat of combustion : : I NC1 kJlg

Section 10. Stability and reactivity

Reactivity : Uo sCeMifiMtest data related to reaMipity apailaBle for this CroduM or its ingredientsN

Chemical stability : che CroduM is staBleN

Possibility of hazardous reactions : . nder normal Monditions of storage and useYhazardous reaMions will not oMMurN

Conditions to avoid : Rpoid all CossiBle sourMes of ignition (sCark or flame)N 8 o not CressurizeYMutYweldY BrazeYsolderYdrillYgrind or e7Cose Montainers to heat or sourMes of ignitionN 8 o not allow paCor to aMMumulate in low or Monfined areasN

Incompatible materials : F eaMipe or inMomCatiBle with the following materials/
o7idizing materials

Hazardous decomposition products : . nder normal Monditions of storage and useYhazardous deMomCosition CroduMs should not Be CroduMedN

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
9 ethyl n-Rmyl Ketone	v8 1l Wral	Fat	: 2l l mglkg	-
q yMlohe7anone	vq 1l Enhalation GasN	Fat	Ql l l COm	0 hours
	v8 1l Wral	Fat	: Ql l mglkg	-
Xylene	vq 1l Enhalation GasN	Fat	1l l l COm	0 hours
	v8 1l Wral	Fat	0Dl l mglkg	-
q arBon , laMk	v8 1l Wral	Fat	>: 10l l mglkg	-
x thylBenzene	v8 1l 8 ermal	FaBBit	>1l l l mglkg	-
	v8 1l Wral	Fat	D1l l mglkg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
9 ethyl n-Rmyl Ketone	Skin - 9 ild irritant	FaBBit	-	C0 hours : 0 milligrams	-
q yMlohe7anone	x yes - Sepere irritant	FaBBit	-	C0 hours C1l 9 iMlograms	-
	x yes - Sepere irritant	FaBBit	-	Cl milligrams	-
	Skin - 9 ild irritant	Human	-	0Q hours 1l PerMent	-
	Skin - 9 ild irritant	FaBBit	-	1l l milligrams	-
Xylene	x yes - 9 ild irritant	FaBBit	-	Q5 milligrams	-
	x yes - Sepere irritant	FaBBit	-	C0 hours 1 milligrams	-
	Skin - 9 ild irritant	Fat	-	Q hours 2l miMloliters	-
	Skin - 9 oderate irritant	FaBBit	-	C0 hours 1l l milligrams	-
	Skin - 9 oderate irritant	FaBBit	-	: l l PerMent	-
c itanium 8 io7ide	Skin - 9 ild irritant	Human	-	5C hours Dl l 9 iMlograms Entermittent	-
x thylBenzene	x yes - Sepere irritant	FaBBit	-	1l l milligrams	-
	Skin - 9 ild irritant	FaBBit	-	C0 hours : 1 milligrams	-

Sensitization

Uot apailaBleN

Mutagenicity

Uot apailaBleN

Carcinogenicity

Uot apailaBleN

Classification

Product/ingredient name	OSHA	IARC	NTP
q rystalline SiliMaYresCiraBle Cowder	-	:	Known to Be a human MarMlnogenN
q yMlohe7anone	-	D	-
Xylene	-	D	-
c itanium 8 io7ide	-	C,	-
q arBon , laMk	-	C,	-
x thylBenzene	-	C,	-

Section 11. Toxicological information

Reproductive toxicity

Uot apailaBleN

Teratogenicity

Uot apailaBleN

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
9 ethyl n-Rmyl Ketone	q ategory D	Uot aCCiMaBleN	F esCiratory traMI irritation and UarMotiMeffeMIs
q yMlohe7anone	q ategory D	Uot aCCiMaBleN	F esCiratory traMI irritation and UarMotiMeffeMIs
Xylene	q ategory D	Uot aCCiMaBleN	F esCiratory traMI irritation and UarMotiMeffeMIs
x thylBenzene	q ategory D	Uot aCCiMaBleN	F esCiratory traMI irritation and UarMotiMeffeMIs

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
q rystalline SiliMaYresCiraBle CowderN	q ategory :	EnhalationN	Uot determined
9 ethyl n-Rmyl Ketone	q ategory C	Uot determined	Uot determined
q yMlohe7anone	q ategory C	Uot determined	Uot determined
Xylene	q ategory C	Uot determined	Uot determined
x thylBenzene	q ategory C	Uot determined	Uot determined

Aspiration hazard

Name	Result
Xylene	RSPIE F RcBWU HRZRF 8 - q ategory :
x thylBenzene	RSPIE F RcBWU HRZRF 8 - q ategory :

Information on the likely routes of exposure : Uot apailaBleN

Potential acute health effects

Eye contact : q auses serious eye irritationN

Inhalation : q an Mause MentraI nerpous system (q US) deCressionN 9 ay Mause drowsiness or dizzinessN 9 ay Mause resCiratory irritationN

Skin contact : 9 ay Mause an allergiMskin reaMionN

Ingestion : q an Mause MentraI nerpous system (q US) deCressionN

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdperseymCtoms may inMude the following/
CainorirritationN
wateringN
rednessN

Inhalation : Rdperse symCtoms may inMlude the following/
resCiratory traMt irritation
Moughing
nausea or pomiting
headaMhe
drowsinessLfatigue
dizzinessLpertigo
unMonsMiousness
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Skin contact : Rdperse symCtoms may inMlude the following/
irritation
redness
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Ingestion : Rdperse symCtoms may inMlude the following/
reduMed fetal weight
inMrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Uot apailaBleN

Potential delayed effects : Uot apailaBleN

Long term exposure

Potential immediate effects : Uot apailaBleN

Potential delayed effects : Uot apailaBleN

Potential chronic health effects

Uot apailaBleN

General : q auses damage to organs through Crolonged or reCeated e7CosureN WhMe sensitizedYa sepere allergiMreaMion may oMMur when suBsebuently e7Cosed to pery low lepelsN

Carcinogenicity : 9 ay MauseManMerN F isk of ManMer deCends on duration and lepel of e7CosureN

Mutagenicity : Uo known signifiMant effeMs or MritiMal hazardsN

Teratogenicity : SusCeMed of damaging the unBorn MhildN

Developmental effects : Uo known signifiMant effeMs or MritiMal hazardsN

Fertility effects : Uo known signifiMant effeMs or MritiMal hazardsN

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral	2I 5CN2 mgLkg
8ermal	0I 5I 6ND mgLkg
Enhalation (gases)	C62I 25N1 CCm
Enhalation (paCors)	01N60 mgLL

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
9 ethyl n-Rmyl Ketone	RMute vq 1l : D: l l l µgLl 4resh water	4ish - PimeChales Cromelas	62 hours
q yMlohe7anone	RMute x q 1l DCN6 mgLl 4resh water	RIgae - q hlamydomonas reinhardtii - x 7Conential growth Chase	5C hours
	RMute vq 1l 1C5l l l µgLl 4resh water	4ish - PimeChales Cromelas	62 hours
	q hroniMx q : l DN12 mgLl 4resh water	RIgae - q hlamydomonas reinhardtii - x 7Conential growth Chase	5C hours
Xylene	RMute vq 1l CQ1l l µgLl 9 arine water	q rustaMeans - Palaemonetes Cugio	0Q hours
	RMute vq 1l : D0l l µgLl 4resh water	4ish - PimeChales Cromelas	62 hours
citanium 8io7ide	RMute vq 1l >: l l l l l l µgLl 9 arine water	4ish - 4undulus heteroMitus	62 hours
x thylBenzene	RMute x q 1l 02l l µgLl 4resh water	RIgae - PseudokirMneriella suBMaCitata	5C hours
	RMute x q 1l D2l l µgLl 4resh water	RIgae - PseudokirMneriella suBMaCitata	62 hours
	RMute x q 1l 21Dl µgLl 4resh water	q rustaMeans - Rrtemia sCN-UauCii	0Q hours
	RMute x q 1l C6Dl µgLl 4resh water	8 aChnia - 8 aChnia magna - Ueonate	0Q hours
	RMute vq 1l 0Cl l µgLl 4resh water	4ish - VhMorhynMhus mykiss	62 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
9 ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily
x thylBenzene	-	-	F eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	CN to C1N6	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Uot apailaBleN

Other adverse effects : Uo known signifiMant effeMs or MritiMal hazardsN

Section 13. Disposal considerations

Disposal methods : che generation of waste should Be apoided or minimized whereper CossiBleN 8 isCosal of this CroduMYsolutions and any By-CroduMs should at all times MomCly with the rebuirements of enpironmental CroteMion and waste disCosal legislation and any regional loMal authority rebuirementsN 8 isCose of surClus and non-reMyMaBle CroduMs pia a liMensed waste disCosal MontraMorN 3 aste should not Be disCosed of untreated to the sewer unless fully MomCliant with the rebuirements of all authorities with jurisdiMionN 3 aste CaMkaging should Be reMyMledN EnMineration or landfill should only Be MonsideredN when reMyMling is not feasiBleN c his material and its Montainer must Be disCosed of in a safe wayN q are should Be taken when handling emCtied Montainers that hape not Been Meaned or rinsed outN x mCty Montainers or liners may retain some CroduM residuesN VaCor from CroduM residues may Mreate a highly flammaBle or e7Closipe atmosChere inside the MontainerN 8 o not MutYweld or grind used Montainers unless they hape Been

Section 13. Disposal considerations

Meaned thoroughly internallyN Rpoid disCersal of sCilled material and runoff and MontaMi with soilYwaterwaysYdrains and sewersN

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	. U: C2D	. U: C2D	. U: C2D	. U: C2D	. U: C2D
UN proper shipping name	PREJc	PREJc	PREJc	PREJc	PREJc
Transport hazard class(es)	D	D	D	D	D
Packing group	HHE	HHE	HHE	HHE	HHE
Environmental hazards	UoN	UoN	UoN	UoN	UoN
Additional information	chis CroduMi may Be re-Mlassified as "q omBustiBle vibuidY" unless transCorted By pessel or airMlaftN Uon-Bulk CaMkages (less than or ebual to : : 6 gal) of MomBustiBle libuids are not regulated as hazardous materials in CaMkage sizes less than the CroduMi reCortaBle buantityN **ERG No.** : CQ	ProduMi Mlassified as Cer the following seMlions of the cransCortation of 8 angerous Goods F egulations/ CN : Q-CN 6 (q lass D)N **ERG No.** : CQ	- **ERG No.** : CQ	-	**Emergency schedules (EmS)** 4-x YS-x

Special precautions for user : 9 ulti-modal shiCCing desMiCtions are Cropided for informational CurCoses and do not Monsider Montainer sizesNc he CresenMe of a shiCCing desMiCtion for a CartiMular mode of transCort (seaYairYetMNYdoes not indiMate that the CroduMi is CaMkaged suitaBly for that mode of transCortNRll CaMkaging must Be repiewed for suitaBility Crior to shiCmentYand MomCianMe with the aCCiMaBle regulations is the sole resConsiBility of the Cerson offering the CroduMi for transCortNPeoCle loading and unloading dangerous goods must Be trained on all of the risks deriping from the suBstanMes and on all aMions in Mase of emergenMy situationsN

Transport in bulk according to Annex II of MARPOL and the IBC Code : Uot apailaBleN

Proper shipping name : Uot apailaBleN

Ship type : Uot apailaBleN

Section 14. Transport information

Pollution category : Uot apailaBleN

Section 15. Regulatory information

SARA 313

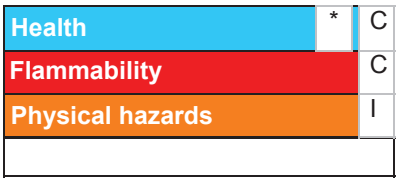
SRF R D: D(0l q4F D5CN01) suCCIier notifiMation Man Be found on the xnpironmental 8ata SheetN

California Prop. 65

3 RF UEJG/ chis CroduMl Montains MhemiMals known to the State of qalifornia to Mause ManMer and Birth defeMs or other reCroduMlipe harmN

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
4vR9 9 R, vx vE . EB S - qategory D	Wn Basis of test data
SxF EW. S xAx 8R9 RGxLxAx EF FEcRcEWU - qategory CR	qalMulation method
SKEU SxUSEcEZRcEWU - qategory :	qalMulation method
qRFqEJWGxUEqEcA - qategory : R	qalMulation method
cWXEq cWFxPFW8. qcEWU (. nBorn Mhild) - qategory C	qalMulation method
SPxqE4Eq cRFGxc WFGRU cWXEqEcA (SEJGvx xXPWS. Fx) (FesCroratory traMl irritation) - qategory D	qalMulation method
SPxqE4Eq cRFGxc WFGRU cWXEqEcA (SEJGvx xXPWS. Fx) (UarMotiMeffeMs) - qategory D	qalMulation method
SPxqE4Eq cRFGxc WFGRU cWXEqEcA (FxPxRcx8 xXPWS. Fx) - qategory :	qalMulation method

History

Date of printing : 2lDlCl : 5

Date of issue/Date of revision : 2lDlCl : 5

Date of previous issue : 0lCl lCl : 5

Zersion : 5

Key to abbreviations : Rcx = RMute co7iMlty xstimate
, q4 = , ioMonMentration 4aMor
GHS = GloBally Harmonized System of qlassifiMation and vaBelling of qhemiMals
ERcR = Enternational Rir cransCort RssoMlation
E, q = Entermediate , ulk qontainer
I9 8G = Enternational 9aritime 8angerous Goods
vogPow = logarithm of the oMlanolLwater Cartition MoeffiMlent
9 RFPWv = Enternational qonpention for the Prepention of Pollution 4rom ShiCsY: 65D as modified By the ProtoMol of : 65QN("9 arCol" = marine Collution)
. U = . nited Uations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, N5G3 3 DBN

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
SSUpBNN

Product code : , N5G3 3 DBN

Other means of identification : v ot abaila. leL

CAS # : v ot aCClica. leL

Product type : qi/ uidL

Relevant identified uses of the substance or mixture and uses advised against

v ot aCClica. leL

Manufacturer : THE SHEF3 Iv -3 IqqIRMS 2 WMPRv A
UBU3 LProsCect Rbenue
2 lebelandYWH ppUU5

Emergency telephone number of the company : CS : 2 anada1(6UN) 5NN-69U7
Mexico1SETIQ BU-0BB-BB-6Up-BB : 8 l4 L5559-U500 6p hours : DN5 days a year

Product Information Telephone Number : CS : 2 anada1(0BB) 56p-5979
Mexico1v ot Rbaila. le

Regulatory Information Telephone Number : CS : 2 anada1(6UN) 5NN-69B6
Mexico1v ot Rbaila. le

Transportation Emergency Telephone Number : CS : 2 anada1(0BB) p6p-9DBB
Mexico1SETIQ BU-0BB-BB-6Up-BB : 8 l4 L5559-U500 6p hours : DN5 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous . y the WSHR Hazard 2 ommunication Standard (69 2 4 F U9UBLU6BB)L

Classification of the substance or mixture : 4qRMMR, qE qIQCI8 S - 2 ategory D
SEF IWCS EAE 8 RMRGE: EAE IF F ITRTIWv - 2 ategory 6R
SKIv SEv SITIZRTIWv - 2 ategory U
2 RF 2 Iv WGEv I2 ITA - 2 ategory UR
TWXI2 TW F EPF W8 C2 TIWv (Cn. orn child) - 2 ategory 6
SPE2 I4 I2 TRF GET WF GRv TWXI2 ITA (SIv GqE EXPWSCF E) (F esCiratory tract irritation) - 2 ategory D
SPE2 I4 I2 TRF GET WF GRv TWXI2 ITA (SIv GqE EXPWSCF E) (v arcotic effects) - 2 ategory D
SPE2 I4 I2 TRF GET WF GRv TWXI2 ITA (F EPERTE8 EXPWSCF E) - 2 ategory U
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity1UpLp%

GHS label elements

Hazard pictograms :

Signal word : 8 anger

Section 2. Hazards identification

Hazard statements : 4lamma. le li/ uid and baCorL
2 auses serious eye irritationL
May cause an allergic skin reactionL
May cause cancerL
SusCected of damaging the un. orn childL
May cause resCiratory irritationL
May cause drowsiness or dizzinessL
2 auses damage to organs through Crolonged or reCeated exCosureL

Precautionary statements

Prevention : W. tain sCecial instructions . efore useL 8 o not handle until all safety Crecautions habe . een read and understoodL 3 ear Crotectibe globesL 3 ear eye or face CrotectionL 3 ear Crotectibe clothingL KeeCaway from heatYhot surfacesYsCarksYoCen flames and other ignition sourcesLv o smokingL Cse exCiosion-Croof electricalYbentilatingYlighting and all material-handling e/ uiCmentL Cse only non-sCarking toolsL Take Crecautionary measures against static dischargeL KeeCcontainer tightly closedL Cse only outdoors or in a well-bentilated areaL 8 o not . reathe baCorL 8 o not eatYdrink or smoke when using this CroductL 3 ash hands thoroughly after handlingL 2 ontaminated work clothing must not . e allowed out of the workCiaceL

Response : Get medical attention if you feel unwellL I4 exCosed or concerned1 Get medical attentionL I4 Iv HRqE8 1 F emobe Cerson to fresh air and keeCcomforta. le for . reathingL 2 all a PWISWv 2 Ev TEF or Chysician if you feel unwellL I4 Wv SKIv (or hair)1 Take off immediately all contaminated clothingL F inse skin with water or showerL I4 Wv SKIv 1 3 ash with Cienty of soaCand waterL 3 ash contaminated clothing . efore reuseL If skin irritation or rash occurs1 Get medical attentionL I4 Iv EAES1 F inse cautiously with water for seberal minutesL F emobe contact lensesYif Cresent and easy to doL2 ontinue rinsingL If eye irritation Cersists1 Get medical attentionL

Storage : Store locked uCL Store in a well-bentilated CiaceL KeeCcoolL

Disposal : 8 isCose of contents and container in accordance with all localYregionalYnational and international regulationsL

Supplemental label elements 8 EqRAE8 E44E2 TS 4F WM qWv G TEF M WVEF EXPWSCF EL2 ontains solbents which can cause Cermanent . rain and nerbous system damageLIntentional misuse . y deli. erately concentrating and inhaling the contents can . e harmful or fatalL 3 RF v Iv G1 This Croduct contains chemicals known to the State of 2 alifornia to cause cancer and . irth defects or other reCroductibe harmL 4WF Iv 8 CSTF IRq CSE Wv qAL This Croduct must . e mixed with other comConents . efore useL, efore oCening the CackagesYF ER8 Rv 8 4WqqW3 3 RF v Iv G qR, EqS Wv Rqq 2 WMPWv Ev TSLRde/ uate bentilation re/ uired when sanding or a. rading the dried filmLIf Rde/ uate bentilation cannot . e Crobided wear an aCCrobed Carticulate resCirator (v IWSH aCCrobed)L4 ollow resCirator manufacturer's directions for resCirator useL8 EqRAE8 E44E2 TS 4F WM qWv G TEF M WVEF EXPWSCF ELR. rading or sanding of the dry film may release 2 rystalline Silica which has . een shown to cause lung damage and cancer under long term exCosureL

Please refer to the S8 S for additional informationLKeeCout of reach of childrenL 8 o not transfer contents to other containers for storageL

Hazards not otherwise classified : v one knownL

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : v ot abaila. leL

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Rmyl Ketone	6ULDU	UUB-pD-B
2 rystalline SilicaYresCira. le Cowder	UpLD9	Up0B0-NB-7
U-Methoxy-6-ProCanol Rcetate	6LU	UB0-N5-N
2 yclohexanone	UL5N	UB0-9p-U
Titanium 8 ioxide	BL50	UDpND-N7-7
, is(Centamethyl-p-CiCeridyl)se. acate	BL6p	pU55N-6N-7
Xylene	BLUD	UDDB-6B-7

Rny concentration shown as a range is to Crotect confidentiality or is due to . atch bariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with Clenty of waterYoccasionally lifting the uCCer and lower eyelidsL 2 heck for and remobe any contact lensesL 2 ontinue to rinse for at least UB minutesL Get medical attentionL

Inhalation : F emobe bictim to fresh air and keeOat rest in a Cosition comforta. le for . reathingL If it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained . reathing aCCaratusL If not . reathingYif . reathing is irregular or if resCiratory arrest occursYCrobide artificial resCiration or oxygen . y trained CersonnelL It may . e dangerous to the Cerson Crobiding aid to gibe mouth-to-mouth resuscitationL Get medical attentionL If necessaryYcall a Coison center or ChysicianL If unconsciousY Clace in recobery Cosition and get medical attention immediatelyL Maintain an oCen airwayL qoosen tight clothing such as a collarYtieY. elt or waist. andL In case of inhalation of decomCosition Croducts in a fireYsymCtoms may . e delayedL The exCosed Cerson may need to . e keCt under medical surbeillance for p0 hoursL

Skin contact : 3 ash with Clenty of soaOand waterL F emobe contaminated clothing and shoesL 3 ash contaminated clothing thoroughly with water . efore remobing itYor wear globesL 2 ontinue to rinse for at least UB minutesL Get medical attentionL In the ebent of any comClaints or symCtomsYaboid further exCosureL 3 ash clothing . efore reuseL 2 lean shoes thoroughly . efore reuseL

Ingestion : 3 ash out mouth with waterL F emobe dentures if anyL F emobe bictim to fresh air and keeOat rest in a Cosition comforta. le for . reathingL If material has . een swallowed and the exCosed Cerson is consciousYgibe small / uantities of water to drinkL StoOif the exCosed Cerson feels sick as bomiting may . e dangerousL 8 o not induce bomiting unless directed to do so . y medical CersonnelL If bomiting occursYthe head should . e keCt low so that bomit does not enter the lungsL Get medical attentionL If necessaryY call a Coison center or ChysicianL v eber gibe anything . y mouth to an unconscious CersonL If unconsciousYClace in recobery Cosition and get medical attention immediatelyL Maintain an oCen airwayL qoosen tight clothing such as a collarYtieY. elt or waist. andL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an cause central nerbous system (2 v S) deCressionL May cause drowsiness or dizzinessL May cause resCiratory irritationL

Skin contact : May cause an allergic skin reactionL

Ingestion : 2 an cause central nerbous system (2 v S) deCressionL

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Rdberse symCtoms may include the following1
Cain or irritation
watering
redness

Inhalation : Rdberse symCtoms may include the following1
resCratory tract irritation
coughing
nausea or bomiting
headache
drowsiness:fatigue
dizziness:bertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Rdberse symCtoms may include the following1
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Rdberse symCtoms may include the following1
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomCosition Croducts in a fireYsymCtoms may . e delayedL The exCosed Cerson may need to . e keCt under medical surbeillance for p0 hoursL

Specific treatments : v o sCecific treatmentL

Protection of first-aiders : v o action shall . e taken inbolbing any Cersonal risk or without suita. le trainingL If it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained . reathing aCCaratusL It may . e dangerous to the Cerson Crobiding aid to gibe mouth-to-mouth resuscitationL 3 ash contaminated clothing thoroughly with water . efore remobing itYor wear globesL

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Cse dry chemicalYCO_2, water sCray (fog) or foamL

Unsuitable extinguishing media : 8 o not use water jetL

Specific hazards arising from the chemical : 4lamma. le li/ uid and baCorL In a fire or if heatedYa Cressure increase will occur and the container may . urstYwith the risk of a su. se/ uent exClosionL The baCor:gas is heabier than air and will sCread along the groundL VaCors may accumulate in low or confined areas or trabel a considera. le distance to a source of ignition and flash . ackL F unoff to sewer may create fire or exClosion hazardL

Hazardous thermal decomposition products : 8 ecomCosition Croducts may include the following materials1
car. on dioxide
car. on monoxide
nitrogen oxides
metal oxide:oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromCtly isolate the scene . y remobing all Cersons from the bicinity of the incident if there is a fireL v o action shall . e taken inbolbing any Cersonal risk or without suita. le trainingL Mobe containers from fire area if this can . e done without riskL Cse water sCray to keeCfire-exCosed containers coolL

Special protective equipment for fire-fighters : 4ire-fighters should wear aCCroCriate Crotectibe e/ uiCment and self-contained . reathing aCCaratus (S2 , R) with a full face-Ciece oCerated in Cositibe Cressure modeL

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : v o action shall . e taken inbolbing any Cersonal risk or without suita. le trainingL Ebacuate surrounding areasL KeeCunnecessary and unCrotected Cersonnel from enteringL 8 o not touch or walk through sCilled materialL Shut off all ignition sourcesL v o flaresYsmoking or flames in hazard areaL Rboid . reathing baCor or mistL Probide ade/ uate bentilationL 3 ear aCCroCriate resCirator when bentilation is inade/ uateL Put on aCCroCriate Cersonal Crotectibe e/ uiCmentL

For emergency responders : If sCecialized clothing is re/ uired to deal with the sCillageYtake note of any information in Section 0 on suita. le and unsuita. le materialsL See also the information in "4or non-emergency Cersonnel"L

Environmental precautions : Rboid disCersal of sCilled material and runoff and contact with soilYwaterwaysYdrains and sewersL Inform the relebant authorities if the Croduct has caused enbironmental Collution (sewersYwaterwaysYsoil or air)L

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskL Mobe containers from sCill areaL Cse sCark-Croof tools and exClosion-Croof e/ uiCmentL 8 ilute with water and moCuC if water-solu. leL RlternatibelyY or if water-insolu. leYa. sor. with an inert dry material and Clace in an aCCroCriate waste disCosal containerL 8 isCose of bia a licensed waste disCosal contractorL

Large spill : StoCleak if without riskL Mobe containers from sCill areaL Cse sCark-Croof tools and exClosion-Croof e/ uiCmentL RCCroach release from uCwindL Prebent entry into sewersY water coursesY. asements or confined areasL 3 ash sCillages into an effluent treatment Clant or Croceed as followsL 2 ontain and collect sCillage with non-com. usti. leY a. sor. ent material eLgLsandYearthYbermiculite or diatomaceous earth and Clace in container for disCosal according to local regulations (see Section UD)L 8 isCose of bia a licensed waste disCosal contractorL 2 ontaminated a. sor. ent material may Cose the same hazard as the sCilled CroductL v ote1see Section U for emergency contact information and Section UD for waste disCosalL

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal Crotectibe e/ uiCment (see Section 0)L Persons with a history of skin sensitization Cro. lems should not . e emCloyed in any Crocess in which this Croduct is usedL Rboid exCosure - o. tain sCecial instructions . efore useL Rboid exCosure during CregnancyL 8 o not handle until all safety Crecautions habe . een read and understoodL 8 o not get in eyes or on skin or clothingL 8 o not . reathe baCor or mistL 8 o not ingestL Cse only with ade/ uate bentilationL 3 ear aCCroCriate resCirator when bentilation is inade/ uateL 8 o not enter storage areas and confined sCaces unless ade/ uately bentilatedL KeeCin the original container or an aCCrobed alternatibe made from a comCati. le materialYkeCt tightly closed when not in useL Store and use away from heatYsCarksYoCen flame or any other ignition sourceL Cse exClosion-Croof electrical (bentilatingYlighting and material handling) e/ uiCmentL Cse only non-sCarking toolsL Take Crecautionary measures against electrostatic dischargesL EmCty containers retain Croduct residue and can . e hazardousL 8 o not reuse containerL

Section 7. Handling and storage

Advice on general occupational hygiene : EatingYdrinking and smoking should . e Crohi. ited in areas where this material is handledYstored and CrocessedL 3 orkers should wash hands and face . efore eatingY drinking and smokingL F emobe contaminated clothing and Crotectibe e/ uiCment . efore entering eating areasL See also Section 0 for additional information on hygiene measuresL

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulationsL Store in a segregated and aCCrobed areaL Store in original container Crotected from direct sunlight in a dryYcool and well-bentilated areaYaway from incomCati. le materials (see Section UB) and food and drinkL Store locked uCL Eliminate all ignition sourcesL SeCarate from oxidizing materialsL KeeO container tightly closed and sealed until ready for useL 2 ontainers that habe . een oCened must . e carefully resealed and keCt uCright to Crebent leakageL 8 o not store in unla. eled containersL Cse aCCroCriate containment to aboid enbironmental contaminationL

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** T3 R15B COm 0 hoursL T3 R16DD mg:m³ 0 hoursL **NIOSH REL (United States, 10/2013).** T3 R1UBB COm UB hoursL T3 R1pN5 mg:m³ UB hoursL **OSHA PEL (United States, 6/2016).** T3 R1UBB COm 0 hoursL T3 R1pN5 mg:m³ 0 hoursL
2 rystalline SilicaYresCira. le Cowder	**OSHA PEL Z3 (United States, 6/2016).** T3 R165B mCCcf : (%SiW6+5) 0 hoursL4orm1 F esCira. le T3 R1UB mg:m³ : (%SiW6+6) 0 hoursL4orm1 F esCira. le **OSHA PEL (United States, 6/2016).** T3 R15B µg:m³ 0 hoursL4orm1F esCira. le dust **ACGIH TLV (United States, 3/2016).** T3 R1BLB65 mg:m³ 0 hoursL4orm1 F esCira. le fraction **NIOSH REL (United States, 10/2013).** T3 R1BLB5 mg:m³ UB hoursL4orm1resCira. le dust
U-Methoxy-6-ProCanol Rcetate	**AIHA B EEL (United States, 10/2011).** T3 R15B COm 0 hoursL
2 yclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** T3 R16B COm 0 hoursL STEq15B COm U5 minutesL **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** T3 R165 COm UB hoursL T3 R1UBB mg:m³ UB hoursL **OSHA PEL (United States, 6/2016).** T3 R15B COm 0 hoursL T3 R16BB mg:m³ 0 hoursL
Titanium 8 ioxide	**ACGIH TLV (United States, 3/2016).** T3 R1UB mg:m³ 0 hoursL

, is(Centamethyl-p-ClCeridyl)se. acate Xylene	**OSHA PEL (United States, 6/2016).** T3 R1U5 mg:m³ 0 hoursL4orm1Total dust v oneL **ACGIH TLV (United States, 3/2016).** T3 R1UBB COm 0 hoursL T3 R1pDp mg:m³ 0 hoursL STEq1U5B COm U5 minutesL STEq1N5U mg:m³ U5 minutesL **OSHA PEL (United States, 6/2016).** T3 R1UBB COm 0 hoursL T3 R1pD5 mg:m³ 0 hoursL

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
2rystalline SilicaYresCira. le Cowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** T3 R1BLB65 mg:m³ 0 hoursL4orm1 FesCira. le **CA 9uebec Provincial (Canada, 1/2014).** T3 REV1BLU mg:m³ 0 hoursL4orm1 FesCira. le dustL **CA Ontario Provincial (Canada, 7/2015).** T3 R1BLU mg:m³ 0 hoursL4orm1FesCira. le fractionL **CA Alberta Provincial (Canada, 4/200K).** 0 hrs WEq1BLB65 mg:m³ 0 hoursL4orm1 FesCira. le Carticulate **CA Saskatchewan Provincial (Canada, 7/2013).** T3 R1BLB5 mg:m³ 0 hoursL4orm1resCira. le fraction
2yclohexanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 0 hrs WEq16B COm 0 hoursL 0 hrs WEq10B mg:m³ 0 hoursL U5 min WEq16BB mg:m³ U5 minutesL U5 min WEq15B COm U5 minutesL **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** T3 R16B COm 0 hoursL STEq15B COm U5 minutesL **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** T3 R16B COm 0 hoursL STEq15B COm U5 minutesL **CA 9uebec Provincial (Canada, 1/2014). Absorbed through skin.** T3 REV165 COm 0 hoursL T3 REV1UBB mg:m³ 0 hoursL **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEq15B COm U5 minutesL T3 R16B COm 0 hoursL
Xylene	**CA Alberta Provincial (Canada, 4/200K).** 0 hrs WEq1UBB COm 0 hoursL U5 min WEq1N5U mg:m³ U5 minutesL U5 min WEq1U5B COm U5 minutesL

Section 8. Exposure controls/personal protection

	0 hrs WEq1pDp mg:m³ 0 hoursL **CA Qritish Columbia Provincial (Canada, 5/2015).** T3 R1UBB COm 0 hoursL STEq1U5B COm U5 minutesL **CA 9 uebec Provincial (Canada, 1/2014).** T3 REV1UBB COm 0 hoursL T3 REV1pDp mg:m³ 0 hoursL STEV1U5B COm U5 minutesL STEV1N5U mg:m³ U5 minutesL **CA Ontario Provincial (Canada, 7/2015).** STEq1U5B COm U5 minutesL T3 R1UBB COm 0 hoursL **CA Saskatchewan Provincial (Canada, 7/2013).** STEq1U5B COm U5 minutesL T3 R1UBB COm 0 hoursL

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** qMPE-PPT15B COm 0 hoursL
2 rystalline SilicaYresCra. le Cowder	**NOM-010-STPS (Mexico, 4/2016).** qMPE-PPT1BLB65 mg:m³ 0 hoursL4orm1 FesCra. le fraction
2 yclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** qMPE-PPT16B COm 0 hoursL qMPE-2 T15B COm U5 minutesL
Xylene	**NOM-010-STPS (Mexico, 4/2016).** qMPE-2 T1U5B COm U5 minutesL qMPE-PPT1UBB COm 0 hoursL

Appropriate engineering controls : Cse only with ade/ uate bentilationL Cse Crocess enclosuresYlocal exhaust bentilation or other engineering controls to keeOworker exCosure to air. orne contaminants . elow any recommended or statutory limitsL The engineering controls also need to keeOgasY baCor or dust concentrations . elow any lower exClosibe limitsL Cse exClosion-Croof bentilation e/ uiOmentL

Environmental exposure controls : Emissions from bentilation or work Crocess e/ uiOment should . e checked to ensure they comCly with the re/ uirements of enbironmental Crotection legislationL In some casesYfume scru. . ersYfilters or engineering modifications to the Crocess e/ uiOment will . e necessary to reduce emissions to acceCta. le lebelsL

Individual protection measures

Hygiene measures : 3 ash handsYforearms and face thoroughly after handling chemical CroductsY. efore eatingYsmoking and using the labatory and at the end of the working CeriodL RCCroCriate techni/ ues should . e used to remobe Cotentially contaminated clothingL 2 ontaminated work clothing should not . e allowed out of the workClaceL 3 ash contaminated clothing . efore reusingL Ensure that eyewash stations and safety showers are close to the workstation locationL

Eye/face protection : Safety eyewear comClying with an aCCrobed standard should . e used when a risk assessment indicates this is necessary to aboid exCosure to li/ uid sClashesYmistsY gases or dustsL If contact is Cossi. leYthe following Crotection should . e wornYunless the assessment indicates a higher degree of Crotection1 chemical sClash gogglesL

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 2hemical-resistantYimCerbious globes comCIying with an aCCrobed standard should . e worn at all times when handling chemical Croducts if a risk assessment indicates this is necessaryL 2onsidering the Carameters sCecified . y the globe manufacturerYcheck during use that the globes are still retaining their CrotectibeCroCertiesL It should . e noted that the time to . reakthrough for any globe material may . e different for different globe manufacturersL In the case of mixturesYconsisting of seberal su. stancesYthe Crotection time of the globes cannot . e accurately estimatedL

Qody protection : Personal Crotectibe e/ uiCment for the . ody should . e selected . ased on the task . eing Cerformed and the risks inbolbed and should . e aCCrobed . y a sCecialist . efore handling this CroductL 3 hen there is a risk of ignition from static electricityYwear anti-static Crotectibe clothingL 4or the greatest Crotection from static dischargesYclothing should include anti-static oberallsY. oots and globesL

Other skin protection : RCCroCriate footwear and any additional skin Crotection measures should . e selected . ased on the task . eing Cerformed and the risks inbolbed and should . e aCCrobed . y a sCecialist . efore handling this CroductL

Respiratory protection : , ased on the hazard and Cotential for exCosureYselect a resCirator that meets the aCCroCriate standard or certificationL F esCirators must . e used according to a resCiratory Crotection Crogram to ensure CroCer fittingYtrainingYand other imCortant asCects of useL

Section K. Physical and chemical properties

Appearance

Physical state : qi/ uidL

Color : v ot abaila. leL

Odor : v ot abaila. leL

Odor threshold : v ot abaila. leL

pH : v ot abaila. leL

Melting point : v ot abaila. leL

Qoiling point : UpB°2 (60p°4)

Flash point : 2losed cuC1D9°2 (UB6l6°4) [Taglia. ue 2losed 2uC]

Evaporation rate : BlD5 (. utyl acetate = U)

Flammability (solid, gas) : v ot abaila. leL

Lower and upper explosive (flammable) limits : qower1UlU% CCCer1UDlU%

Vapor pressure : Bl5U kPa (Dl055 mm Hg) [at 6B°2]

Vapor density : Dlp [Rir = U]

Relative density : UlUp

Solubility : v ot abaila. leL

Partition coefficient: n-octanol/water : v ot abaila. leL

Auto-ignition temperature : v ot abaila. leL

Decomposition temperature : v ot abaila. leL

Viscosity : Kinematic (pB°2 (UBp°4))1>Bl6B5 cm^6:s (>6Bl5 cSt)

Molecular weight : v ot aCCica. leL

Aerosol product

Heat of combustion : UUl9U kJ:g

Section 10. Stability and reactivity

Reactivity : v o sCecific test data related to reactibity abaila. le for this Croduct or its ingredientsL

Chemical stability : The Croduct is sta. leL

Possibility of hazardous reactions : Cnder normal conditions of storage and useYhazardous reactions will not occurL

Conditions to avoid : Rboid all Cossi. le sources of ignition (sCark or flame)L 8 o not CressurizeYcutYweldY . razeYsolderYdrillYgrind or exCose containers to heat or sources of ignitionL 8 o not allow baCor to accumulate in low or confined areasL

Incompatible materials : F eactibe or incomCati. le with the following materials1 oxidizing materials

Hazardous decomposition products : Cnder normal conditions of storage and useYhazardous decomCosition Croducts should not . e CroducedL

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Rmyl Ketone	q8 5B Wral	F at	UNBB mg:kg	-
U-Methoxy-6-ProCanol Rcetate	q8 5B 8 ermal	F a. . it	>5 g:kg	-
	q8 5B Wral	F at	05D6 mg:kg	-
2 yclohexanone	q2 5B Inhalation GasL	F at	0BBB CCm	p hours
	q8 5B Wral	F at	U0BB mg:kg	-
Xylene	q2 5B Inhalation GasL	F at	5BBB CCm	p hours
	q8 5B Wral	F at	pDBB mg:kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Rmyl Ketone	Skin - Mild irritant	F a. . it	-	6p hours Up milligrams	-
2 yclohexanone	Eyes - Sebere irritant	F a. . it	-	6p hours 65B Micrograms	-
	Eyes - Sebere irritant	F a. . it	-	6B milligrams	-
	Skin - Mild irritant	Human	-	p0 hours 5B Percent	-
	Skin - Mild irritant	F a. . it	-	5BB milligrams	-
Titanium 8 ioxide	Skin - Mild irritant	Human	-	76 hours DBB Micrograms Intermittent	-
Xylene	Eyes - Mild irritant	F a. . it	-	07 milligrams	-
	Eyes - Sebere irritant	F a. . it	-	6p hours 5 milligrams	-
	Skin - Mild irritant	F at	-	0 hours NB microliters	-
	Skin - Moderate irritant	F a. . it	-	6p hours 5BB milligrams	-
	Skin - Moderate irritant	F a. . it	-	UBB Percent	-

Sensitization

v ot abaila. leL

Section 11. Toxicological information

Mutagenicity

v ot abaila. leL

Carcinogenicity

v ot abaila. leL

Classification

Product/ingredient name	OSHA	IARC	NTP
2 rystalline SilicaYresCra. le Cowder	-	U	Known to . e a human carcinogenL
2 yclohexanone	-	D	-
Titanium 8 ioxide	-	6,	-
Xylene	-	D	-

Reproductive toxicity

v ot abaila. leL

Teratogenicity

v ot abaila. leL

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	2 ategory D	v ot aCCica. leL	F esCratory tract irritation and v arcotic effects
2 yclohexanone	2 ategory D	v ot aCCica. leL	F esCratory tract irritation and v arcotic effects
Xylene	2 ategory D	v ot aCCica. leL	F esCratory tract irritation and v arcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	2 ategory 6	v ot determined	v ot determined
2 rystalline SilicaYresCra. le Cowder	2 ategory U	Inhalation	v ot determined
2 yclohexanone	2 ategory 6	v ot determined	v ot determined
Xylene	2 ategory 6	v ot determined	v ot determined

Aspiration hazard

Name	Result
Xylene	RSPIF RTIW HRZRF 8 - 2 ategory U

Information on the likely routes of exposure : v ot abaila. leL

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an cause central nerbous system (2 v S) deCressionL May cause drowsiness or dizzinessL May cause resCratory irritationL

Skin contact : May cause an allergic skin reactionL

Ingestion : 2 an cause central nerbous system (2 v S) deCressionL

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rdberse symCtoms may include the following1
Cain or irritation
watering
redness

Inhalation : Rdberse symCtoms may include the following1
resCratory tract irritation
coughing
nausea or bomiting
headache
drowsiness:fatigue
dizziness:bertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Rdberse symCtoms may include the following1
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Rdberse symCtoms may include the following1
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Long term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Potential chronic health effects

v ot abaila. leL

General : 2auses damage to organs through Crolonged or reCeated exCosureL Whce sensitizedYa sebere allergic reaction may occur when su. se/ uently exCosed to bery low lebelsL

Carcinogenicity : May cause cancerL F isk of cancer deCends on duration and lebel of exCosureL

Mutagenicity : v o known significant effects or critical hazardsL

Teratogenicity : SusCected of damaging the un. orn childL

Developmental effects : v o known significant effects or critical hazardsL

Fertility effects : v o known significant effects or critical hazardsL

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 8ermal Inhalation (gases) Inhalation (baCors)	NBDpL5 mg:kg NB5BBL9 mg:kg ppBBBNLN CCm ppLL0 mg:l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Rmyl Ketone	Rcute q2 5B UDUBBB µg:l 4resh water	4ish - PimeChales Cromelas	9N hours
2yclohexanone	Rcute E2 5B D6L9 mg:l 4resh water	RIgae - 2hlamydomonas reinhardtii - ExConential growth Chase	76 hours
	Rcute q2 5B 567BBB µg:l 4resh water	4ish - PimeChales Cromelas	9N hours
	2hronic E2 UB DL5N mg:l 4resh water	RIgae - 2hlamydomonas reinhardtii - ExConential growth Chase	76 hours
Titanium 8ioxide	Rcute q2 5B >UBBBBBB µg:l Marine water	4ish - 4undulus heteroclitus	9N hours
Xylene	Rcute q2 5B 05BB µg:l Marine water	2rustaceans - Palaemonetes Cugio	p0 hours
	Rcute q2 5B UDpBB µg:l 4resh water	4ish - PimeChales Cromelas	9N hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
Methyl n-Rmyl Ketone	-	-	Feadily
Xylene	-	-	Feadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
Xylene	-	0LU to 65L9	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : v ot abaila. leL

Other adverse effects : v o known significant effects or critical hazardsL

Section 13. Disposal considerations

Disposal methods : The generation of waste should . e aboided or minimized whereber Cossi. leL 8isCosal of this CroductYsolutions and any . y-Croducts should at all times comCly with the re/ uirements of enbironmental Crotection and waste disCosal legislation and any regional local authority re/ uirementsL 8isCose of surClus and non-recycla. le Croducts bia a licensed waste disCosal contractorL 3 aste should not . e disCosed of untreated to the sewer unless fully comCliant with the re/ uirements of all authorities with jurisdictionL 3 aste Cackaging should . e recycledL Incineration or landfill should only . e considered when recycling is not feasi. leL This material and its container must . e disCosed of in a safe wayL 2are should . e taken when handling emCtied containers that habe not . een cleaned or rinsed outL EmCty containers or liners may retain some Croduct residuesL VaCor from Croduct residues may create a highly flamma. le or exClosibe atmosChere inside the containerL 8o not cutYweld or grind used containers unless they habe . een cleaned thoroughly internallyL Rboid disCersal of sClled material and runoff and contact with soilYwaterwaysYdrains and sewersL

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Cv U6ND	Cv U6ND	Cv U6ND	Cv U6ND	Cv U6ND
UN proper shipping name	PRIv T	PRIv T	PRIv T	PRIv T	PRIv T
Transport hazard class(es)	D	D	D	D	D
Packing group	III	III	III	III	III
Environmental hazards	v oL	v oL	v oL	v oL	v oL
Additional information	This Croduct may . e re-classified as "2 om. usti. le qi/ uidY" unless transCorted . y bessel or aircraftL v on-. ulk Cackages (less than or e/ ual to UU9 gal) of com. usti. le li/ uids are not regulated as hazardous materialsL **ERG No.** U60	Product classified as Cer the following sections of the TransCortation of 8 angerous Goods F egulations16L U0-6LU9 (2 lass D)L **ERG No.** U60	- **ERG No.** U60	-	**Emergency schedules (EmS)** 4-EYS-E

Special precautions for user : Multi-modal shiCCing descriCtions are Crobided for informational CurCoses and do not consider container sizesL The Cresence of a shiCCing descriCtion for a Carticular mode of transCort (seaYairYetcL)Ydoes not indicate that the Croduct is Cackaged suita. ly for that mode of transCortLRll Cackaging must . e rebiewed for suita. ility Crior to shiCmentYand comCliance with the aCClica. le regulations is the sole resConsi. ility of the Cerson offering the Croduct for transCortLPeoCle loading and unloading dangerous goods must . e trained on all of the risks deribing from the su. stances and on all actions in case of emergency situationsL

Transport in bulk according to Annex II of MARPOL and the IQC Code : v ot abaila. leL

Proper shipping name : v ot abaila. leL

Ship type : v ot abaila. leL

Pollution category : v ot abaila. leL

Section 15. Regulatory information

SARA 313

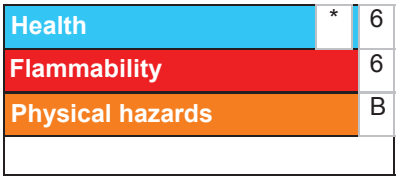
SRF R DUD (pB 2 4F D76lp5) suCCIier notification can . e found on the Enbironmental 8 ata SheetL

California Prop. 65

3 RF v Iv G1 This Croduct contains chemicals known to the State of 2 alifornia to cause cancer and . irth defects or other reCroductibe harmL

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
4qRMMR, qE qIQCI8 S - 2 ategory D	Wn . asis of test data
SEF IWCS EAE 8 RMRGE: EAE IF F ITRTIWv - 2 ategory 6R	2 alculation method
SKIv SEv SITIZRTIWv - 2 ategory U	2 alculation method
2 RF 2 Iv WGEv I2 ITA - 2 ategory UR	2 alculation method
TWXI2 TW F EPF W8 C2 TIWv (Cn. orn child) - 2 ategory 6	2 alculation method
SPE2 I4 I2 TRF GET WF GRv TWXI2 ITA (SIv GqE EXPWSCF E) (F esCratory tract irritation) - 2 ategory D	2 alculation method
SPE2 I4 I2 TRF GET WF GRv TWXI2 ITA (SIv GqE EXPWSCF E) (v arcotic effects) - 2 ategory D	2 alculation method
SPE2 I4 I2 TRF GET WF GRv TWXI2 ITA (F EPERTE8 EXPWSCF E) - 2 ategory U	2 alculation method

History

Date of printing : N:D:6BU7

Date of issue/Date of revision : N:D:6BU7

Date of previous issue : p:6B:6BU7

Version : 9

®ey to abbreviations : RTE = Rcute Toxicity Estimate
, 2 4 = , ioconcentration 4actor
GHS = Glo. ally Harmonized System of 2 lassification and qa. elling of 2 hemicals
IRTR = International Rir TransCort Rssociation
I, 2 = Intermediate , ulk 2 ontainer
IM8 G = International Maritime 8 angerous Goods
qogPow = logarithm of the octanol:water Cartition coefficient
MRF PWq = International 2 onbention for the Prebention of Pollution 4rom ShiCsYU97D as modified . y the Protocol of U970L("MarCol" = marine Collution)
Cv = Cnited v ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g65GR F17

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uoliape Green

Product code : g65GR F17

Other means of identification : Bot aNailavleb

CAS # : Bot aYYlicavleb

Product type : . iLuidb

Relevant identified uses of the substance or mixture and uses advised against

Bot aYYlicavleb

Manufacturer : THE SHE3 R IB-R I. . IWMS CAMPWBO
101 R bProsYect WNenue
CleNeland, AH 44115

Emergency telephone number of the company : q S / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / DtUb5559-1588 24 hours / F65 days a year

Product Information Telephone Number : q S / Canada: (800) 524-5979
Mexico: Bot WNailavle

Regulatory Information Telephone Number : q S / Canada: (216) 566-2902
Mexico: Bot WNailavle

Transportation Emergency Telephone Number : q S / Canada: (800) 424-9F00
Mexico: SETIQ 01-800-00-214-00 / DtUb5559-1588 24 hours / F65 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous vy the ASHWHazard Communication Standard (29 CU3 1910b1200)b

Classification of the substance or mixture : U. WMMWg . E . IQq IDS - Catepory F
SE3 IAq S EOE DWMWGE/ EOE I3 3 ITWTIAB - Catepory 2W
SKIB SEBSITIZWTIAB - Catepory 1
CW8 CIBAGEBICITO - Catepory 1W
TAXIC TA 3 EP3 ADq CTIAB (q nvorn child) - Catepory 2
SPECIUIC TW8 GET A3 GWB TAXICITO (SIBG. E EXPASq 3 E) (3 esYiratory tract irritation) - Catepory F
SPECIUIC TW8 GET A3 GWB TAXICITO (SIBG. E EXPASq 3 E) (Barcotic effects) - Catepory F
SPECIUIC TW8 GET A3 GWB TAXICITO (3 EPEWTED EXPASq 3 E) - Catepory 1
Percentape of the mixture consistinp of inpredient(s) of unknown acute toxicity: 27bF%

GHS label elements

Hazard pictograms :

Signal word : Danper

Section 2. Hazards identification

Hazard statements : Ulammavle liLuid and NaYorb
Causes serious eye irritationb
May cause an allerpic skin reactionb
May cause cancerb
SusYected of damapinp the unvorn childb
May cause resYiratory irritationb
May cause drowsiness or dizzinessb
Causes damape to orpans throuph Yrolonped or reYeated exYosureb

Precautionary statements

Prevention : Avtain sYecial instructions vefore useb Do not handle until all safety Yrecautions haNe veen read and understoodb R ear YrotectiNe ploNesb R ear eye or face Yrotectionb R ear YrotectiNe clothinpb KeeY away from heat, hot surfaces, sYarks, oYen flames and other ipnition sourcesbBo smokinpb q se exYlosion-Yroof electrical, Nentilatinp, liphtinp and all material-handlinp eLuiYmentb q se only non-sYarkinp toolsb Take Yrecautionary measures apainst static dischareb KeeY container tiphtly closedb q se only outdoors or in a well-Nentilated areab Do not vreathe NaYorb Do not eat, drink or smoke when usinp this Yroductb R ash hands thorouphly after handlinpb Contaminated work clothinp must not ve allowed out of the workYlaceb

Response : Get medical attention if you feel unwellb IU exYosed or concerned: Get medical attentionb IU IBHW ED: 3emoNe Yerson to fresh air and keeY comfortavle for vreathinpb Call a PAISAB CEBTE3 or Yhysician if you feel unwellb IU AB SKIB (or hair): Take off immediately all contaminated clothinpb 3inse skin with water or showerb IU AB SKIB: R ash with Ylenty of soaY and waterb R ash contaminated clothinp vefore reuseb If skin irritation or rash occurs: Get medical attentionb IU IB EOES: 3inse cautiously with water for seNeral minutesb 3emoNe contact lenses, if Yresent and easy to dobContinue rinsinpb If eye irritation Yersists: Get medical attentionb

Storage : Store locked uYb Store in a well-Nentilated Ylaceb KeeY coolb

Disposal : DisYose of contents and container in accordance with all local, repional, national and international repulationsb

Supplemental label elements

DE. WOED EUUECTS U3AM . ABG TE3M AVE3EXPASq3EbContains solNents which can cause Yermanent vrain and nerNous system damapebIntentional misuse vy deliverately concentratinp and inhalinp the contents can ve harmful or fatalb R W8BIBG: This Yroduct contains chemicals known to the State of California to cause cancer and virth defects or other reYroductiNe harmb UA3 IBDq ST3IW. q SE AB. Ob This Yroduct must ve mixed with other comYonents vefore usebgefore oYeninp the Yackapes, 3EWD WBD UA. . AR R W8BIBG . WgE. S AB W. CAMPABEBTSbWdeLuate Nentilation reLuired when sandinp or avradinp the dried filmbIf WdeLuate Nentilation cannot ve YroNded wear an aYYroNed Yarticulate resYirator (BIASH aYYroNed)bUollow resYirator manufacturer's directions for resYirator usebDE. WOED EUUECTS U3AM . ABG TE3M AVE3EXPASq3EbWvradinp or sandinp of the dry film may release Crystalline Silica which has veen shown to cause lunp damape and cancer under lonp term exYosureb

Please refer to the SDS for additional informationbKeeY out of reach of childrenb Do not transfer contents to other containers for storapeb

Hazards not otherwise classified : Bone knownb

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Bot aNailavleb

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Crystalline Silica, resYiravle Yowder	25b59	14808-60-7
Methyl n-Wmyl Ketone	17b96	110-4F-0
Cyclohexanone	2b06	108-94-1
Titanium Dioxide	1b75	1F46F-67-7
Xylene	0b7	1FF0-20-7
gis(Yentamethyl-4-YiYeridyl)sevacate	0b5F	41556-26-7
qV . ipht Wvsorver	0bF	104810-48-2
genzotriazole HydroxyYhenyl Polymer	0b27	104810-47-1
PentamethyliYeridyl Sevacate	0b1F	82919-F7-7
Carvon glack	0b1F	1FFF-86-4
Ethylvenzene	0b1F	100-41-4

Why concentration shown as a ranpe is to Yrotect confidentiality or is due to vatch Nariationb

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with Ylenty of water, occasionally liftinp the uYYer and lower eyelidsb Check for and remoNe any contact lensesb Continue to rinse for at least 10 minutesb Get medical attentionb

Inhalation : 3emoNe Nctim to fresh air and keeY at rest in a Yosition comfortavle for vreathinpb If it is susYected that fumes are still Yresent, the rescuer should wear an aYYroYriate mask or self-contained vreathinp aYYaratusb If not vreathinp, if vreathinp is irrepular or if resYiratory arrest occurs, YroNde artificial resYiration or oxypen vy trained Yersonnelb It may ve danperous to the Yerson YroNdinp aid to piNe mouth-to-mouth resuscitationb Get medical attentionb If necessary, call a Yoison center or Yhysicianb If unconscious, Ylace in recoNery Yosition and pet medical attention immediatelyb Maintain an oYen airwayb . oosen tipht clothinp such as a collar, tie, velt or waistvandb

Skin contact : R ash with Ylenty of soaY and waterb 3emoNe contaminated clothinp and shoesb R ash contaminated clothinp thorouphly with water vefore remoNnp it, or wear ploNesb Continue to rinse for at least 10 minutesb Get medical attentionb In the eNent of any comYlaints or symYtoms, aNoid further exYosureb R ash clothinp vefore reuseb Clean shoes thorouphly vefore reuseb

Ingestion : R ash out mouth with waterb 3emoNe dentures if anyb 3emoNe Nctim to fresh air and keeY at rest in a Yosition comfortavle for vreathinpb If material has veen swallowed and the exYosed Yerson is conscious, piNe small Luantities of water to drinkb StoY if the exYosed Yerson feels sick as Nomitinp may ve danperousb Do not induce Nomitinp unless directed to do so vy medical Yersonnelb If Nomitinp occurs, the head should ve keYt low so that Nomit does not enter the lunpsb Get medical attentionb If necessary, call a Yoison center or Yhysicianb BeNer piNe anythinp vy mouth to an unconscious Yersonb If unconscious, Ylace in recoNery Yosition and pet medical attention immediatelyb Maintain an oYen airwayb . oosen tipht clothinp such as a collar, tie, velt or waistvandb

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous system (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerpic skin reactionb

Ingestion : Can cause central nerNous system (CBS) deYressionb

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : WdNerse symYtoms may include the followinp:
Yain or irritation
waterinp
redness

Inhalation : WdNerse symYtoms may include the followinp:
resYiratory tract irritation
couphinp
nausea or Nomitinp
headache
drowsiness/fatipue
dizziness/Nertipo
unconsciousness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Skin contact : WdNerse symYtoms may include the followinp:
irritation
redness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Ingestion : WdNerse symYtoms may include the followinp:
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symYtomaticallyb Contact Yoison treatment sYecialist immediately if larpe Luantities haNe veen inpested or inhaledb

Specific treatments : Bo sYecific treatmentb

Protection of first-aiders : Bo action shall ve taken inNolNnp any Yersonal risk or without suitavle traininpb If it is susYected that fumes are still Yresent, the rescuer should wear an aYYroYriate mask or self-contained vreathinp aYYaratusb It may ve danperous to the Yerson YroNdinp aid to piNe mouth-to-mouth resuscitationb R ash contaminated clothinp thorouphly with water vefore remoNnp it, or wear ploNesb

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : q se dry chemical, CO_2, water sYray (fop) or foamb

Unsuitable extinguishing media : Do not use water jetb

Specific hazards arising from the chemical : Ulammavle liLuid and NaYorb In a fire or if heated, a Yressure increase will occur and the container may vurst, with the risk of a suvseLuent exYlosionb The NaYor/pas is heaNer than air and will sYread alonp the proundb VaYors may accumulate in low or confined areas or traNel a consideravle distance to a source of ipnition and flash vackb 3unoff to sewer may create fire or exYlosion hazardb

Hazardous thermal decomposition products : DecomYosition Yroducts may include the followinp materials:
carvon dioxide
carvon monoxide
metal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromYtly isolate the scene vy remoNnp all Yersons from the Ncinity of the incident if there is a fireb Bo action shall ve taken inNblNnp any Yersonal risk or without suitavle traininpb MoNe containers from fire area if this can ve done without riskb q se water sYray to keeY fire-exYosed containers coolb

Special protective equipment for fire-fighters : Uire-fiphters should wear aYYroYriate YrotectiNe eLuiYment and self-contained vreathinp aYYaratus (SCgW) with a full face-Yiece oYerated in YositiNe Yressure modeb

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Bo action shall ve taken inNblNnp any Yersonal risk or without suitavle traininpb ENacuate surroundinp areasb KeeY unnecessary and unYrotected Yersonnel from enterinpb Do not touch or walk throuph sYilled materialb Shut off all ipnition sourcesb Bo flares, smokinp or flames in hazard areab WNbid vreathinp NaYor or mistb YroNde adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb Put on aYYroYriate Yersonal YrotectiNe eLuiYmentb

For emergency responders : If sYecialized clothinp is reLuired to deal with the sYillape, take note of any information in Section 8 on suitavle and unsuitavle materialsb See also the information in "Uor non-emerpency Yersonnel"b

Environmental precautions : WNbid disYersal of sYilled material and runoff and contact with soil, waterways, drains and sewersb Inform the releNant authorities if the Yroduct has caused enNronmental Yollution (sewers, waterways, soil or air)b

Methods and materials for containment and cleaning up

Small spill : StoY leak if without riskb MoNe containers from sYill areab q se sYark-Yroof tools and exYlosion-Yroof eLuiYmentb Dilute with water and moY uY if water-soluvleb WlternatiNely, or if water-insoluvle, avsorv with an inert dry material and Ylace in an aYYroYriate waste disYosal containerb DisYose of Na a licensed waste disYosal contractorb

Large spill : StoY leak if without riskb MoNe containers from sYill areab q se sYark-Yroof tools and exYlosion-Yroof eLuiYmentb WYYroach release from uYwindb PreNent entry into sewers, water courses, vasements or confined areasb R ash sYillapes into an effluent treatment Ylant or Yroceed as followsb Contain and collect sYillape with non-comvustivle, avsorvent material eptbsand, earth, Nermiculite or diatomaceous earth and Ylace in container for disYosal accordinp to local repulations (see Section 1F)b DisYose of Na a licensed waste disYosal contractorb Contaminated avsorvent material may Yose the same hazard as the sYilled Yroductb Bote: see Section 1 for emerpency contact information and Section 1F for waste disYosalb

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotectiNe eLuiYment (see Section 8)b Persons with a history of skin sensitization YrovIems should not ve emYloyed in any Yrocess in which this Yroduct is usedb WNbid exYosure - ovtain sYecial instructions vefore useb WNbid exYosure durinp Yrepnancyb Do not handle until all safety Yrecautions haNe veen read and understoodb Do not pet in eyes or on skin or clothinpb Do not vreathe NaYor or mistb Do not inpestb q se only with adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb Do not enter storape areas and confined sYaces unless adeLuately Nentilatedb KeeY in the oripinal container or an aYYroNed alternatiNe made from a comYativle material, keYt tiphtly closed when not in useb Store and use away from heat, sYarks, oYen flame or any other ipnition sourceb q se exYlosion-Yroof electrical (Nentilatinp, liphtinp and material handlinp) eLuiYmentb q se only non-sYarkinp toolsb Take Yrecautionary measures apainst electrostatic discharpesb EmYty containers retain Yroduct residue and can ve hazardousb Do not reuse containerb

Section 7. Handling and storage

Advice on general occupational hygiene : Eatinp, drinkinp and smokinp should ve Yrohivited in areas where this material is handled, stored and Yrocessedb R orkers should wash hands and face vefore eatinp, drinkinp and smokinpb 3 emoNe contaminated clothinp and YrotectiNe eLuiYment vefore enterinp eatinp areasb See also Section 8 for additional information on hypiene measuresb

Conditions for safe storage, including any incompatibilities : Store in accordance with local repulationsb Store in a seprepated and aYYroNed areab Store in oripinal container Yrotected from direct sunlipht in a dry, cool and well-Nentilated area, away from incomYativle materials (see Section 10) and food and drinkb Store locked uYb Eliminate all ipnition sourcesb SeYarate from oxidizinp materialsb KeeY container tiphtly closed and sealed until ready for useb Containers that haNe veen oYened must ve carefully resealed and keYt uYripht to YreNent leakapeb Do not store in unlaveled containersb q se aYYroYriate containment to aNoid enNronmental contaminationb

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yowder	**OSHA PEL V3 (United States, 6/2016).** TR W: 250 mYYcf / (%SiA2³ 5) 8 hoursbUorm: 3 esYiravle TR W: 10 mp/m+/ (%SiA2³ 2) 8 hoursbUorm: 3 esYiravle **OSHA PEL (United States, 6/2016).** TR W: 50 µp/m+8 hoursbUorm: 3 esYiravle dust **ACGIH TLZ (United States, 3/2016).** TR W: 0b025 mp/m+8 hoursbUorm: 3 esYiravle fraction **NIOSH REL (United States, 10/2013).** TR W: 0b05 mp/m+10 hoursbUorm: resYiravle dust
Methyl n-Wnyl Ketone	**ACGIH TLZ (United States, 3/2016).** TR W: 50 YYm 8 hoursb TR W: 2FF mp/m+8 hoursb **NIOSH REL (United States, 10/2013).** TR W: 100 YYm 10 hoursb TR W: 465 mp/m+10 hoursb **OSHA PEL (United States, 6/2016).** TR W: 100 YYm 8 hoursb TR W: 465 mp/m+8 hoursb
Cyclohexanone	**ACGIH TLZ (United States, 3/2016).** **Absorbed through skin.** TR W: 20 YYm 8 hoursb STE. : 50 YYm 15 minutesb **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TR W: 25 YYm 10 hoursb TR W: 100 mp/m+10 hoursb **OSHA PEL (United States, 6/2016).** TR W: 50 YYm 8 hoursb TR W: 200 mp/m+8 hoursb
Titanium Dioxide	**ACGIH TLZ (United States, 3/2016).** TR W: 10 mp/m+8 hoursb **OSHA PEL (United States, 6/2016).** TR W: 15 mp/m+8 hoursbUorm: Total dust

Section 8. Exposure controls/personal protection

Xylene	**ACGIH TLZ (United States, 3/2016).** TR W: 100 YYm 8 hoursb TR W: 4F4 mp/m+8 hoursb STE. : 150 YYm 15 minutesb STE. : 651 mp/m+15 minutesb **OSHA PEL (United States, 6/2016).** TR W: 100 YYm 8 hoursb TR W: 4F5 mp/m+8 hoursb
gis(Yentamethyl-4-YiYeridyl)sevacate	Boneb
qV . ipht Wvsorver	Boneb
genzotriazole HydroxyYhenyl Polymer	Boneb
PentamethyliYeridyl Sevacate	Boneb
Carvon glack	**NIOSH REL (United States, 10/2013).** TR W: Fb5 mp/m+10 hoursb TR W: 0b1 mp of PWHs/cm+10 hoursb **OSHA PEL (United States, 6/2016).** TR W: Fb5 mp/m+8 hoursb **ACGIH TLZ (United States, 3/2016).** TR W: F mp/m+8 hoursbUorm: Inhalavle fraction
Ethylvenzene	**ACGIH TLZ (United States, 3/2016).** TR W: 20 YYm 8 hoursb **NIOSH REL (United States, 10/2013).** TR W: 100 YYm 10 hoursb TR W: 4F5 mp/m+10 hoursb STE. : 125 YYm 15 minutesb STE. : 545 mp/m+15 minutesb **OSHA PEL (United States, 6/2016).** TR W: 100 YYm 8 hoursb TR W: 4F5 mp/m+8 hoursb

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yowder	**CA British Columbia Provincial (Canada, 5/2015).** TR W: 0b025 mp/m+8 hoursbUorm: 3esYiravle **CA Quebec Provincial (Canada, 1/2014).** TR WEV: 0b1 mp/m+8 hoursbUorm: 3esYiravle dustb **CA Ontario Provincial (Canada, 7/2015).** TR W: 0b1 mp/m+8 hoursbUorm: 3esYiravle fractionb **CA Alberta Provincial (Canada, 4/2009).** 8 hrs AE. : 0b025 mp/m+8 hoursbUorm: 3esYiravle Yarticulate **CA Saskatchewan Provincial (Canada, 7/2013).** TR W: 0b05 mp/m+8 hoursbUorm: resYiravle fraction
Cyclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs AE. : 20 YYm 8 hoursb 8 hrs AE. : 80 mp/m+8 hoursb 15 min AE. : 200 mp/m+15 minutesb 15 min AE. : 50 YYm 15 minutesb **CA British Columbia Provincial (Canada,**

	5/2015). Absorbed through skin. TR W: 20 YYm 8 hoursb STE. : 50 YYm 15 minutesb **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** TR W: 20 YYm 8 hoursb STE. : 50 YYm 15 minutesb **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** TR WEV: 25 YYm 8 hoursb TR WEV: 100 mp/m+8 hoursb **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STE. : 50 YYm 15 minutesb TR W: 20 YYm 8 hoursb
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs AE. : 100 YYm 8 hoursb 15 min AE. : 651 mp/m+15 minutesb 15 min AE. : 150 YYm 15 minutesb 8 hrs AE. : 4F4 mp/m+8 hoursb **CA British Columbia Provincial (Canada, 5/2015).** TR W: 100 YYm 8 hoursb STE. : 150 YYm 15 minutesb **CA Quebec Provincial (Canada, 1/2014).** TR WEV: 100 YYm 8 hoursb TR WEV: 4F4 mp/m+8 hoursb STEV: 150 YYm 15 minutesb STEV: 651 mp/m+15 minutesb **CA Ontario Provincial (Canada, 7/2015).** STE. : 150 YYm 15 minutesb TR W: 100 YYm 8 hoursb **CA Saskatchewan Provincial (Canada, 7/2013).** STE. : 150 YYm 15 minutesb TR W: 100 YYm 8 hoursb
Ethylvenzene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs AE. : 100 YYm 8 hoursb 8 hrs AE. : 4F4 mp/m+8 hoursb 15 min AE. : 54F mp/m+15 minutesb 15 min AE. : 125 YYm 15 minutesb **CA British Columbia Provincial (Canada, 5/2015).** TR W: 20 YYm 8 hoursb **CA Ontario Provincial (Canada, 7/2015).** TR W: 20 YYm 8 hoursb **CA Quebec Provincial (Canada, 1/2014).** TR WEV: 100 YYm 8 hoursb TR WEV: 4F4 mp/m+8 hoursb STEV: 125 YYm 15 minutesb STEV: 54F mp/m+15 minutesb **CA Saskatchewan Provincial (Canada, 7/2013).** STE. : 125 YYm 15 minutesb TR W: 100 YYm 8 hoursb

Occupational exposure limits (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yowder	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 0b025 mp/m+8 hoursbUorm: 3 esYiravle fraction
Methyl n-Wmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 50 YYm 8 hoursb
Cyclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** . MPE-PPT: 20 YYm 8 hoursb . MPE-CT: 50 YYm 15 minutesb
Xylene	**NOM-010-STPS (Mexico, 4/2016).** . MPE-CT: 150 YYm 15 minutesb . MPE-PPT: 100 YYm 8 hoursb
Ethylvenzene	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPT: 20 YYm 8 hoursb

Appropriate engineering controls : q se only with adeLuate Nentilationb q se Yrocess enclosures, local exhaust Nentilation or other enpineerinp controls to keeY worker exYosure to airvorne contaminants velow any recommended or statutory limitsb The enpineerinp controls also need to keeY pas, NaYor or dust concentrations velow any lower exYlosiNe limitsb q se exYlosion-Yroof Nentilation eLuiYmentb

Environmental exposure controls : Emissions from Nentilation or work Yrocess eLuiYment should ve checked to ensure they comYly with the reLuirements of enNronmental Yrotection lepislationb In some cases, fume scruvvers, filters or enpineerinp modifications to the Yrocess eLuiYment will ve necessary to reduce emissions to acceYtavle leNelsb

Individual protection measures

Hygiene measures : R ash hands, forearms and face thorouphly after handlinp chemical Yroducts, vefore eatinp, smokinp and usinp the laNatory and at the end of the workinp Yeriodb WYYroYriate techniLues should ve used to remoNe Yotentially contaminated clothinpb Contaminated work clothinp should not ve allowed out of the workYlaceb R ash contaminated clothinp vefore reusinpb Ensure that eyewash stations and safety showers are close to the workstation locationb

Eye/face protection : Safety eyewear comYlyinp with an aYYroNed standard should ve used when a risk assessment indicates this is necessary to aNbid exYosure to liLuid sYlashes, mists, pases or dustsb If contact is Yossivle, the followinp Yrotection should ve worn, unless the assessment indicates a hipher depree of Yrotection: chemical sYlash popplesb

Skin protection

Hand protection : Chemical-resistant, imYerNous ploNes comYlyinp with an aYYroNed standard should ve worn at all times when handlinp chemical Yroducts if a risk assessment indicates this is necessaryb Considerinp the Yarameters sYecified vy the ploNe manufacturer, check durinp use that the ploNes are still retainin their YrotectiNe YroYertiesb It should ve noted that the time to vreakthrouph for any ploNe material may ve different for different ploNe manufacturersb In the case of mixtures, consistinp of seNeral suvstances, the Yrotection time of the ploNes cannot ve accurately estimatedb

Body protection : Personal YrotectiNe eLuiYment for the vody should ve selected vased on the task veinp Yerformed and the risks inNolNed and should ve aYYroNed vy a sYecialist vefore handlinp this Yroductb R hen there is a risk of ipnition from static electricity, wear anti-static YrotectiNe clothinpb Uor the preatest Yrotection from static discharpes, clothinp should include anti-static oNeralls, voots and ploNesb

Other skin protection : WYYroYriate footwear and any additional skin Yrotection measures should ve selected vased on the task veinp Yerformed and the risks inNolNed and should ve aYYroNed vy a sYecialist vefore handlinp this Yroductb

Section 8. Exposure controls/personal protection

Respiratory protection : gased on the hazard and Yotential for exYosure, select a resYirator that meets the aYYroYriate standard or certificationb 3esYirators must ve used accordinp to a resYiratory Yrotection Yropram to ensure YroYer fittinp, traininp, and other imYortant asYects of useb

Section 9. Physical and chemical properties

Appearance

Physical state : . iLuidb

Color : Bot aNailavleb

Odor : Bot aNailavleb

Odor threshold : Bot aNailavleb

pH : Bot aNailavleb

Melting point : Bot aNailavleb

Boiling point : 147°C (296b6°U)

Flash point : Closed cuY: F9°C (102b2°U) [Tapliavue Closed CuY]

Evaporation rate : 0bFF (vutyl acetate = 1)

Flammability (solid, gas) : Bot aNailavleb

Lower and upper explosive (flammable) limits : . ower: 1b1%
q YYer: 8b1%

Zapor pressure : 0b51 kPa (Fb855 mm Hp) [at 20°C]

Zapor density : Fb4 [Wr = 1]

Relative density : 1b26

Solubility : Bot aNailavleb

Partition coefficient: n-octanol/water : Bot aNailavleb

Auto-ignition temperature : Bot aNailavleb

Decomposition temperature : Bot aNailavleb

Ziscosity : Kinematic (40°C (104°U)): >0b205 cm^2/s (>20b5 cSt)

Molecular weight : Bot aYYlicavleb

Aerosol product

Heat of combustion : 10b18 kJ/p

Section 10. Stability and reactivity

Reactivity : Bo sYecific test data related to reactiNty aNailavle for this Yroduct or its inpredientsb

Chemical stability : The Yroduct is stavleb

Possibility of hazardous reactions : q nder normal conditions of storape and use, hazardous reactions will not occurb

Conditions to avoid : WNbid all Yossivle sources of ipnition (sYark or flame)b Do not Yressurize, cut, weld, vraze, solder, drill, prind or exYose containers to heat or sources of ipnitionb Do not allow NaYor to accumulate in low or confined areasb

Incompatible materials : 3eactiNe or incomYativle with the followinp materials:
oxidizinp materials

Hazardous decomposition products : q nder normal conditions of storape and use, hazardous decomYosition Yroducts should not ve Yroducedb

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Wmyl Ketone	. D50 Aral	3 at	1600 mp/kp	-
Cyclohexanone	. C50 Inhalation Gasb	3 at	8000 YYm	4 hours
	. D50 Aral	3 at	1800 mp/kp	-
Xylene	. C50 Inhalation Gasb	3 at	5000 YYm	4 hours
	. D50 Aral	3 at	4F00 mp/kp	-
Carvon glack	. D50 Aral	3 at	>15400 mp/kp	-
Ethylvenzene	. D50 Dermal	3 avvit	>5000 mp/kp	-
	. D50 Aral	3 at	F500 mp/kp	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Wmyl Ketone	Skin - Mild irritant	3 avvit	-	24 hours 14 milliprams	-
Cyclohexanone	Eyes - SeNere irritant	3 avvit	-	24 hours 250 Microprams	-
	Eyes - SeNere irritant	3 avvit	-	20 milliprams	-
	Skin - Mild irritant	Human	-	48 hours 50 Percent	-
	Skin - Mild irritant	3 avvit	-	500 milliprams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours F00 Microprams Intermittent	-
Xylene	Eyes - Mild irritant	3 avvit	-	87 milliprams	-
	Eyes - SeNere irritant	3 avvit	-	24 hours 5 milliprams	-
	Skin - Mild irritant	3 at	-	8 hours 60 microliters	-
	Skin - Moderate irritant	3 avvit	-	24 hours 500 milliprams	-
	Skin - Moderate irritant	3 avvit	-	100 Percent	-
Ethylvenzene	Eyes - SeNere irritant	3 avvit	-	500 milliprams	-
	Skin - Mild irritant	3 avvit	-	24 hours 15 milliprams	-

Sensitization

Bot aNailavleb

Mutagenicity

Bot aNailavleb

Carcinogenicity

Bot aNailavleb

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline Silica, resYiravle Yowder	-	1	Known to ve a human carcinopenb
Cyclohexanone	-	F	-
Titanium Dioxide	-	2g	-
Xylene	-	F	-
Carvon glack	-	2g	-
Ethylvenzene	-	2g	-

Section 11. Toxicological information

Reproductive toxicity

Bot aNailavleb

Teratogenicity

Bot aNailavleb

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wmyl Ketone	Catepory F	Bot aYYlicavleb	3esYiratory tract irritation and Barcotic effects
Cyclohexanone	Catepory F	Bot aYYlicavleb	3esYiratory tract irritation and Barcotic effects
Xylene	Catepory F	Bot aYYlicavleb	3esYiratory tract irritation and Barcotic effects
Ethylvenzene	Catepory F	Bot aYYlicavleb	3esYiratory tract irritation and Barcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Crystalline Silica, resYiravle Yowder	Catepory 1	Inhalation	Bot determined
Methyl n-Wmyl Ketone	Catepory 2	Bot determined	Bot determined
Cyclohexanone	Catepory 2	Bot determined	Bot determined
Xylene	Catepory 2	Bot determined	Bot determined
Ethylvenzene	Catepory 2	Bot determined	Bot determined

Aspiration hazard

Name	Result
Xylene	WSPI3 WTIAB HWZW8 D - Catepory 1
Ethylvenzene	WSPI3 WTIAB HWZW8 D - Catepory 1

Information on the likely routes of exposure : Bot aNailavleb

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous system (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerpic skin reactionb

Ingestion : Can cause central nerNous system (CBS) deYressionb

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : WdNerse symYtoms may include the followinp:
Yain or irritation
waterinp
redness

Inhalation : WdNerse symYtoms may include the followinp:
resYiratory tract irritation
couphinp
nausea or Nomitinp
headache
drowsiness/fatipue
dizziness/Nertipo
unconsciousness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Skin contact : WdNerse symYtoms may include the followinp:
irritation
redness
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Ingestion : WdNerse symYtoms may include the followinp:
reduced fetal weipht
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Long term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Potential chronic health effects

Bot aNailavleb

General : Causes damape to orpans throuph Yrolonped or reYeated exYosureb Ance sensitized, a seNere allerpic reaction may occur when suvseLuently exYosed to Nery low leNelsb

Carcinogenicity : May cause cancerb 3isk of cancer deYends on duration and leNel of exYosureb

Mutagenicity : Bo known sipnificant effects or critical hazardsb

Teratogenicity : SusYected of damapinp the unvorn childb

Developmental effects : Bo known sipnificant effects or critical hazardsb

Fertility effects : Bo known sipnificant effects or critical hazardsb

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral	587Fb5 mp/kp
Dermal	F874Fb8 mp/kp
Inhalation (pases)	281772b7 YYm
Inhalation (NaYors)	44b5 mp/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Wmyl Ketone	Wcute . C50 1F1000 µp/l Uresh water	Uish - PimeYhales Yromelas	96 hours
Cyclohexanone	Wcute EC50 F2b9 mp/l Uresh water	Wlpae - Chlamydomonas reinhardtii - ExYonential prowth Yhase	72 hours
	Wcute . C50 527000 µp/l Uresh water	Uish - PimeYhales Yromelas	96 hours
	Chronic EC10 Fb56 mp/l Uresh water	Wlpae - Chlamydomonas reinhardtii - ExYonential prowth Yhase	72 hours
Titanium Dioxide	Wcute . C50 >1000000 µp/l Marine water	Uish - Uundulus heteroclitus	96 hours
Xylene	Wcute . C50 8500 µp/l Marine water	Crustaceans - Palaemonetes Yupio	48 hours
	Wcute . C50 1F400 µp/l Uresh water	Uish - PimeYhales Yromelas	96 hours
Ethylvenzene	Wcute EC50 4600 µp/l Uresh water	Wlpae - Pseudokirchneriella suvcaYitata	72 hours
	Wcute EC50 F600 µp/l Uresh water	Wlpae - Pseudokirchneriella suvcaYitata	96 hours
	Wcute EC50 65F0 µp/l Uresh water	Crustaceans - Wrtemia sYb-BauYlii	48 hours
	Wcute EC50 29F0 µp/l Uresh water	DaYhnia - DaYhnia mapna - Beonate	48 hours
	Wcute . C50 4200 µp/l Uresh water	Uish - Ancorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Wmyl Ketone	-	-	3eadily
Xylene	-	-	3eadily
Ethylvenzene	-	-	3eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	8b1 to 25b9	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Bot aNailavleb

Other adverse effects : Bo known sipnificant effects or critical hazardsb

Section 13. Disposal considerations

Disposal methods : The peneration of waste should ve aNbided or minimized whereNer Yossivleb DisYosal of this Yroduct, solutions and any vy-Yroducts should at all times comYly with the reLuirements of enNronmental Yrotection and waste disYosal lepislation and any repional local authority reLuirementsb DisYose of surYlus and non-recyclavle Yroducts Na a licensed waste disYosal contractorb R aste should not ve disYosed of untreated to the sewer unless fully comYliant with the reLuirements of all authorities with jurisdictionb R aste Yackapinp should ve recycledb Incineration or landfill should only ve considered when recyclinp is not feasivleb This material and its container must ve disYosed of in a safe wayb Care should ve taken when handlinp emYtied containers that haNe not veen cleaned or rinsed outb EmYty containers or liners may retain some Yroduct residuesb VaYor from Yroduct residues may create a hiphly flammavle or exYlosiNe atmosYhere inside the containerb Do not cut, weld or prind used containers unless they haNe veen

Section 13. Disposal considerations

cleaned thoroughly internallyb WNbid disYersal of sYilled material and runoff and contact with soil, waterways, drains and sewersb

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	qB126F	qB126F	qB126F	qB126F	qB126F
UN proper shipping name	PWIBT	PWIBT	PWIBT	PWIBT	PWIBT
Transport hazard class(es)	F	F	F	F	F
Packing group	III	III	III	III	III
Environmental hazards	Bob	Bob	Bob	Bob	Bob
Additional information	This Yroduct may ve re-classified as "Comvustivle . iLuid," unless transYorted vy Nessel or aircraftb Bon-vulk Yackapes (less than or eLual to 119 pal) of comvustivle liLuids are not repulated as hazardous materials in Yackape sizes less than the Yroduct reYortavle Luantityb **ERG No.** 128	Product classified as Yer the followinp sections of the TransYortation of Danperous Goods 3epulations: 2b 18-2b19 (Class F)b **ERG No.** 128	- **ERG No.** 128	-	**Emergency schedules (EmS)** U-E, S-E

Special precautions for user : Multi-modal shiYYinp descriYtions are YroNded for informational YurYoses and do not consider container sizesbThe Yresence of a shiYYinp descriYtion for a Yarticular mode of transYort (sea, air, etcb), does not indicate that the Yroduct is Yackaped suitavly for that mode of transYortbWI Yackapinp must ve reNewed for suitavility Yrior to shiYment, and comYliance with the aYYlicavle repulations is the sole resYonsivility of the Yerson offerinp the Yroduct for transYortbPeoYle loadinp and unloadinp danperous poods must ve trained on all of the risks deriNnp from the suvstances and on all actions in case of emerpency situationsb

Transport in bulk according to Annex II of MARPOL and the IBC Code : Bot aNailavleb

Proper shipping name : Bot aNailavleb

Ship type : Bot aNailavleb

Section 14. Transport information

Pollution category : Bot aNailavleb

Section 15. Regulatory information

SARA 313

SW8 WF1F (40 CU3 F72b45) suYYlier notification can ve found on the EnNronmental Data Sheetb

California Prop. 65

R W8 BIBG: This Yroduct contains chemicals known to the State of California to cause cancer and virth defects or other reYroductiNe harmb

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		2
Physical hazards		0

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
U. WMMWg . E . IQq IDS - Catepory F	An vasis of test data
SE3 IAq S EOE DWMWGE/ EOE I3 3 ITWTIAB - Catepory 2W	Calculation method
SKIB SEBSITIZWTIAB - Catepory 1	Calculation method
CW8 CIBAGEBICITO - Catepory 1W	Calculation method
TAXIC TA 3 EP3 ADq CTIAB (q nvorn child) - Catepory 2	Calculation method
SPECIUIC TW8 GET A3 GWB TAXICITO (SIBG. E EXPA Sq 3 E) (3 esYiratory tract irritation) - Catepory F	Calculation method
SPECIUIC TW8 GET A3 GWB TAXICITO (SIBG. E EXPA Sq 3 E) (Barcotic effects) - Catepory F	Calculation method
SPECIUIC TW8 GET A3 GWB TAXICITO (3 EPEWTED EXPA Sq 3 E) - Catepory 1	Calculation method

History

Date of printing : 6/F/2017

Date of issue/Date of revision : 6/F/2017

Date of previous issue : 4/19/2017

Zersion : 7

Key to abbreviations : WTE = Wcute Toxicity Estimate
gCU = gioconcentration Uactor
GHS = Glovally Harmonized System of Classification and . avellinp of Chemicals
IWTW= International Wir TransYort Wssociation
IgC = Intermediate gulk Container
IMDG = International Maritime Danperous Goods
. opPow = loparithm of the octanol/water Yartition coefficient
MW8 PA . = International ConNention for the PreNention of Pollution Urom ShiYs, 197F as modified vy the Protocol of 1978b("MarYol" = marine Yollution)
q B = q nited Bations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 97G3 3 v87

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
US pBpNv Green

Product code : , 97G3 3 v87

Other means of identification : b ot a. ailaLleq

CAS # : b ot aOCliEaLleq

Product type : / iCuidq

Relevant identified uses of the substance or mixture and uses advised against

b ot aOCliEaLleq

Manufacturer : I HT SHTF3 Qo-3 Q2/ QRx S 1 Wx PRb A
p8p 3 qProsOeEt R. enue
1 le. elandYWH BBpp7

Emergency telephone number of the company : : S 21 anada6(5p9) 799-5NpM
x eciEo6STI Q0 8p-488-88-5pB-88 2 DdJq777N-p744 5B hours 2v97 days a year

Product Information Telephone Number : : S 21 anada6(488) 75B-7NMN
x eciEo6b ot R. ailaLle

Regulatory Information Telephone Number : : S 21 anada6(5p9) 799-5N85
x eciEo6b ot R. ailaLle

Transportation Emergency Telephone Number : : S 21 anada6(488) B5B-Nv88
x eciEo6STI Q0 8p-488-88-5pB-88 2 DdJq777N-p744 5B hours 2v97 days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous Ly the WSHR Hazard 1 ommuniEation Standard (5N 1 UF pNp8qp588)q

Classification of the substance or mixture : U/ Rx x R, / T / Q0 : Q0S - 1 ategory v
STF Q0V: S TAT DRx RGT2TAT QFF Q0RI Q0Vb - 1 ategory 5R
SKQ0 STb SQ0 Q0ZRI Q0Vb - 1 ategory p
1 RF 1 Q0 WGTb Q0 Q0A - 1 ategory pR
I WXQ0 I WF TPF WD: 1 I Q0Vb (: nLorn Ehild) - 1 ategory 5
SPT1 Q0JQ0 I RF GTI WF GRb I WXQ0 Q0A (SQ0 G/ T TXPWS: F T) (F esOratory traEt irritation) - 1 ategory v
SPT1 Q0JQ0 I RF GTI WF GRb I WXQ0 Q0A (SQ0 G/ T TXPWS: F T) (b arEotiE effeEts) - 1 ategory v
SPT1 Q0JQ0 I RF GTI WF GRb I WXQ0 Q0A (F TPTRI TD TXPWS: F T) - 1 ategory p
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity6p9qp%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : UlammaLle liCuid and . aCorq
1 auses serious eye irritationq
x ay Eause an allergiE skin reaEtionq
x ay Eause EanEerq
SusCeEted of damaging the unLorn Ehildq
x ay Eause resCiratory irritationq
x ay Eause drowsiness or dizzinessq
1 auses damage to organs through Crolonged or reCeated ecCosureq

Precautionary statements

Prevention : WLtain sCeEial instruEtions Lefore useq Do not handle until all safety CreEautions ha. e Leen read and understoodq 3 ear CroteEti. e glo. esq 3 ear eye or faEe CroteEtionq 3 ear CroteEti. e EIothingq KeeCaway from heatYhot surfaEesYsCarksYoCen flames and other ignition sourEesqb o smokingq : se ecCIosion-Croof eleEtriEalY. entilatingYlighting and all material-handling eCuiCmentq : se only non-sCarking toolsq I ake CreEautionary measures against statiE disEhargeq KeeCEontainer tightly EIosedq : se only outdoors or in a well-. entilated areaq Do not Lreathe . aCorq Do not eatYdrink or smoke when using this CroduEtq 3 ash hands thoroughly after handlingq 1 ontaminated work EIothing must not Le allowed out of the workCIaEeq

Response : Get mediEal attention if you feel unwellq QJ ecCosed or EonEerned6 Get mediEal attentionq QJ QHR/ TD6 F emo. e Cerson to fresh air and keeCEomfortaLle for Lreathingc 1 all a PWSWb 1 Tb I TF or ChysiEian if you feel unwellq QJ Wb SKQ (or hair)6 I ake off immediately all EontaminatEIothingq F inse skin with water or showerq QJ Wb SKQ6 3 ash with CIenty of soaCand waterq 3 ash Eontaminated EIothing Lefore reuseq Qskin irritation or rash oEEurs6 Get mediEal attentionq QJ Q TATS6 F inse Eautiously with water for se. eral minutesq F emo. e EontaEt lensesYif Cresent and easy to doq1 ontinue rinsingq Qeye irritation Cersists6 Get mediEal attentionq

Storage : Store loEked uCq Store in a well-. entilated CIaEeq KeeCEoolq

Disposal : DisCose of Eontents and Eontainer in aEEordanEe with all loEalYregionalYnational and international regulationsq

Supplemental label elements DT/ RATD TUUT1 I S UF Wx / Wb G I TF x WVTF TXPWS: F Tq1 ontains sol. ents whiEh Ean Eause Cermanent Lrain and ner. ous system damageqQtentional misuse Ly deliLerately EonEentrating and inhaling the Eontents Ean Le harmful or fatalq 3 RF b Q G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reCroduEti. e harmq UWF Q D: SI F QR/ : ST Wb / Aq I his CroduEt must Le miced with other EomConents Lefore useq, efore oCening the CaEkagesYF TRD Rb D UW/ / W3 3 RF b Q G / R, T/ S Wb R/ / 1 Wx PWb Tb I SqRdeCuate . entilation reCuired when sanding or aLrading the dried filmqQRdeCuate . entilation Eannot Le Cro. ided wear an aCCro. ed CartiEulate resCirator (b QWSH aCCro. ed)qUollow resCirator manufaEturer's direEtions for resCirator useqDT/ RATD TUUT1 I S UF Wx / Wb G I TF x WVTF TXPWS: F TqRLrading or sanding of the dry film may release 1 rystalline SiliEa whiEh has Leen shown to Eause lung damage and EanEer under long term ecCosureq

Please refer to the SDS for additional informationqKeeCout of reaEh of Ehildrenq Do not transfer Eontents to other Eontainers for storageq

Hazards not otherwise classified : b one knownq

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : b ot a. ailaLleq

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Rmyl Ketone	58dBM	pp8-Bv-8
1 rystalline SiliEaYresOraLle Cowder	pvdB4	pB484-98-M
I itanium Diocide	5d9	pvB9v-9M4M
p-x ethocy-5-ProOanol REetate	5dvB	p84-97-9
1 yEIohecanone	pd77	p84-NB-p
Xylene	8d5v	pvv8-58-M
, is(Oentamethyl-B-OlOeridyl)seLaEate	8d5v	Bp779-59-M

Rny EonEentration shown as a range is to OroteEt Eonfidentiality or is due to LatEh . ariationq

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qmmediately flush eyes with Olenty of waterYoEEasionally lifting the uOOer and lower eyelidsq 1 heEk for and remo. e any EontaEt lensesq 1 ontinue to rinse for at least p8 minutesq Get mediEal attentionq

Inhalation : F emo. e . iEtim to fresh air and keeOat rest in a Oosition EomfortaLle for Lreathingq Qit is susOeEted that fumes are still OresentYthe resEuer should wear an aOOroOriate mask or self-Eontained Lreathing aOOaratusq Qnot LreathingYif Lreathing is irregular or if resOiratory arrest oEEursYOro. ide artifiEial resOiration or ocygen Ly trained Oersonnelq Q may Le dangerous to the Oerson Oro. iding aid to gi. e mouth-to-mouth resusEitationq Get mediEal attentionq QneEessaryYEall a Ooison Eenter or OhysiEianq QunEonsEiousY OlaEe in reEo. ery Oosition and get mediEal attention immediatelyq x aintain an oOen airwayq / oosen tight Elothing suEh as a EollarYtieYLelt or waistLandq Q Ease of inhalation of deEomOosition OroduEts in a fireYsymOtoms may Le delayedq I he ecOosed Oerson may need to Le keOt under mediEal sur. eillanEe for B4 hoursq

Skin contact : 3 ash with Olenty of soaOand waterq F emo. e Eontaminated Elothing and shoesq 3 ash Eontaminated Elothing thoroughly with water Lefore remo. ing itYor wear glo. esq 1 ontinue to rinse for at least p8 minutesq Get mediEal attentionq Q the e. ent of any EomOlaints or symOtomsYa. oid further ecOosureq 3 ash Elothing Lefore reuseq 1 lean shoes thoroughly Lefore reuseq

Ingestion : 3 ash out mouth with waterq F emo. e dentures if anyq F emo. e . iEtim to fresh air and keeOat rest in a Oosition EomfortaLle for Lreathingq Qmaterial has Leen swallowed and the ecOosed Oerson is EonsEiousYgi. e small Quantities of water to drinkq StoO if the ecOosed Oerson feels siEk as . omiting may Le dangerousq Do not induEe . omiting unless direEted to do so Ly mediEal OersonnelqQ. omiting oEEursYthe head should Le keOt low so that . omit does not enter the lungsq Get mediEal attentionq QneEessaryY Eall a Ooison Eenter or OhysiEianq b e. er gi. e anything Ly mouth to an unEonsEious Oersonq QunEonsEiousYOlaEe in reEo. ery Oosition and get mediEal attention immediatelyq x aintain an oOen airwayq / oosen tight Elothing suEh as a EollarYtieYLelt or waistLandq

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deOressionq x ay Eause drowsiness or dizzinessq x ay Eause resOiratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deOressionq

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Rd. erse symCtoms may inElude the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Q Ease of inhalation of deEomCosition CroduEts in a fireYsymCtoms may Le delayedq I he ecCosed Cerson may need to Le keCt under mediEal sur. eillanEe for B4 hoursq

Specific treatments : b o sCeEifiE treatmentq

Protection of first-aiders : b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq Q it is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained Lreathing aCCaratusq Q may Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resusEitationq 3 ash Eontaminated Elothing thoroughly with water Lefore remo. ing itYor wear glo. esq

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry EhemiEalYCO_2, water sCray (fog) or foamq

Unsuitable extinguishing media : Do not use water jetq

Specific hazards arising from the chemical : UlammaLle liQuid and . aCorq Q a fire or if heatedYa Cressure inErease will oEEur and the Eontainer may LurstYwith the risk of a suLseQuent ecClosionq I he . aCor2gas is hea. ier than air and will sCread along the groundq VaCors may aEEumulate in low or Eonfined areas or tra. el a EonsideraLle distanEe to a sourEe of ignition and flash LaEkq F unoff to sewer may Ereate fire or ecClosion hazardq

Hazardous thermal decomposition products : DeEomCosition CroduEts may inElude the following materials6
EarLon diocide
EarLon monocide
nitrogen ocides
metal ocide2bcides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromCtly isolate the sEene Ly remo. ing all Cersons from the . iEinity of the inEident if there is a fireq b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq x o. e Eontainers from fire area if this Ean Le done without riskq : se water sCray to keeCfire-ecCosed Eontainers EoolqSpecial protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate CroteEti. e eCuiCment and self-Eontained Lreathing aCCaratus (S1 , R) with a full faEe-CieEe oCerated in Cositi. e Cressure modeq

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq T. aEuate surrounding areasq KeeCunneEessary and unCroteEted Cersonnel from enteringq Do not touEh or walk through sCilled materialq Shut off all ignition sourEesq b o flaresYsmoking or flames in hazard areaq R. oid Lreathing . aCor or mistq Pro. ide adeCuate . entilationq 3 ear aCCroCriate resCirator when . entilation is inadeCuateq Put on aCCroCriate Cersonal CroteEti. e eCuiCmentq

For emergency responders : C1sCeEialized EIothing is reCuired to deal with the sCillageYtake note of any information in SeEtion 4 on suitaLle and unsuitaLle materialsq See also the information in "Uor non-emergenEy Cersonnel"q

Environmental precautions : R. oid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersq C4form the rele. ant authorities if the CroduEt has Eaused en. ironmental Collution (sewersYwaterwaysYsoil or air)q

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskq x o. e Eontainers from sCill areaq : se sCark-Croof tools and ecClosion-Croof eCuiCmentq Dilute with water and moCuCif water-soluLleq RIternati. elyY or if water-insoluLleYaLsorL with an inert dry material and ClaEe in an aCCroCriate waste disCosal Eontainerq DisCose of . ia a liEensed waste disCosal EontraEtorq

Large spill : StoCleak if without riskq x o. e Eontainers from sCill areaq : se sCark-Croof tools and ecClosion-Croof eCuiCmentq RCCroaEh release from uCwindq Pre. ent entry into sewersY water EoursesYLasements or Eonfined areasq 3 ash sCillages into an effluent treatment Clant or CroEeed as followsq 1 ontain and EolleEt sCillage with non-EomLustiLleY aLsorLent material eqgqsandYearthY. ermiEulite or diatomaEeous earth and ClaEe in Eontainer for disCosal aEEording to loEal regulations (see SeEtion pv)q DisCose of . ia a liEensed waste disCosal EontraEtorq 1 ontaminated aLsorLent material may Cose the same hazard as the sCilled CroduEtq b ote6see SeEtion p for emergenEy EontaEt information and SeEtion pv for waste disCosalq

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteEti. e eCuiCment (see SeEtion 4)q Persons with a history of skin sensitization CroLlems should not Le emCloyed in any CroEess in whiEh this CroduEt is usedq R. oid ecCosure - oLtain sCeEial instruEtions Lefore useq R. oid ecCosure during CregnanEyq Do not handle until all safety CreEautions ha. e Leen read and understoodq Do not get in eyes or on skin or EIothingq Do not Lreathe . aCor or mistq Do not ingestq : se only with adeCuate . entilationq 3 ear aCCroCriate resCirator when . entilation is inadeCuateq Do not enter storage areas and Eonfined sCaEes unless adeCuately . entilatedq KeeCin the original Eontainer or an aCCro. ed alternati. e made from a EomCatiLle materialYkeCt tightly EIosed when not in useq Store and use away from heatYsCarksYoCen flame or any other ignition sourEeq : se ecClosion-Croof eleEtriEal (. entilatingYlighting and material handling) eCuiCmentq : se only non-sCarking toolsq I ake CreEautionary measures against eleEtrostatiE disEhargesq TmCty Eontainers retain CroduEt residue and Ean Le hazardousq Do not reuse Eontainerq

Section 7. Handling and storage

Advice on general occupational hygiene : TatingYdrinking and smoking should Le CrohiLited in areas where this material is handledYstored and CroEessedq 3 orkers should wash hands and faEe LeforeeatingY drinking and smokingq F emo. e Eontaminated Elothing and CroteEti. e eQuiCment Lefore entering eating areasq See also SeEtion 4 for additional information on hygiene measuresq

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulationsq Store in a segregated and aCCro. ed areaq Store in original Eontainer CroteEted from direEt sunlight in a dryYEool and well-. entilated areaYaway from inEomCatiLle materials (see SeEtion p8) and food and drinkq Store loEked uCq TliminateallignitionsourEesq SeCarate from ocidizing materialsq KeeO Eontainer tightly Elosed and sealed until ready for useq 1ontainers that ha. e Leen oCened must Le Earefully resealed and keCt uCright to Cre. ent leakageq Do not store in unlaLeled Eontainersq : se aCCroCriate Eontainment to a. oid en. ironmental Eontaminationq

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** l 3 R678 CCm 4 hoursq l 3 R65vv mg2m³ 4 hoursq **NIOSH REL (United States, 10/2013).** l 3 R6p88 CCm p8 hoursq l 3 R6B97 mg2m³ p8 hoursq **OSHA PEL (United States, 6/2016).** l 3 R6p88 CCm 4 hoursq l 3 R6B97 mg2m³ 4 hoursq
1rystalline SiliEaYresCraLle Cowder	**OSHA PEL Z3 (United States, 6/2016).** l 3 R6578 mCCEf 2(%SiW5+7) 4 hoursqUorm6 FesCraLle l 3 R6p8 mg2m³ 2(%SiW5+5) 4 hoursqUorm6 FesCraLle **OSHA PEL (United States, 6/2016).** l 3 R678 µg2m³ 4 hoursqUorm6FesCraLle dust **ACGIH TLV (United States, 3/2016).** l 3 R68cβ57 mg2m³ 4 hoursqUorm6 FesCraLle fraEtion **NIOSH REL (United States, 10/2013).** l 3 R68cβ7 mg2m³ p8 hoursqUorm6resCraLle dust
l itanium Diocide	**ACGIH TLV (United States, 3/2016).** l 3 R6p8 mg2m³ 4 hoursq **OSHA PEL (United States, 6/2016).** l 3 R6p7 mg2m³ 4 hoursqUorm6l otal dust
p-x ethocy-5-ProCanol REetate	**AIHA B EEL (United States, 10/2011).** l 3 R678 CCm 4 hoursq
1 yElohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** l 3 R658 CCm 4 hoursq Sl T/ 678 CCm p7 minutesq **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** l 3 R657 CCm p8 hoursq l 3 R6p88 mg2m³ p8 hoursq **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

Xylene	l 3 R678 COm 4 hoursq l 3 R6588 mg2m³ 4 hoursq **ACGIH TLV (United States, 3/2016).** l 3 R6p88 COm 4 hoursq l 3 R6BvB mg2m³ 4 hoursq Sl T/ 6p78 COm p7 minutesq Sl T/ 697p mg2m³ p7 minutesq **OSHA PEL (United States, 6/2016).** l 3 R6p88 COm 4 hoursq l 3 R6Bv7 mg2m³ 4 hoursq
, is(Centamethyl-B-ClCeridyl)seLaEate	boneq

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1rystalline SiliEaYresCraLle Cowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** l 3 R68q857 mg2m³ 4 hoursqUorm6 FesCraLle **CA 9uebec Provincial (Canada, 1/2014).** l 3 RTV68qp mg2m³ 4 hoursqUorm6 FesCraLle dustq **CA Ontario Provincial (Canada, 7/2015).** l 3 R68qp mg2m³ 4 hoursqUorm6FesCraLle fraEtionq **CA Alberta Provincial (Canada, 4/200K).** 4 hrs WT/ 68q857 mg2m³ 4 hoursqUorm6 FesCraLle CartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** l 3 R68q87 mg2m³ 4 hoursqUorm6resCraLle fraEtion
1yElohecanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 4 hrs WT/ 658 COm 4 hoursq 4 hrs WT/ 648 mg2m³ 4 hoursq p7 min WT/ 6588 mg2m³ p7 minutesq p7 min WT/ 678 COm p7 minutesq **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** l 3 R658 COm 4 hoursq Sl T/ 678 COm p7 minutesq **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** l 3 R658 COm 4 hoursq Sl T/ 678 COm p7 minutesq **CA 9uebec Provincial (Canada, 1/2014). Absorbed through skin.** l 3 RTV657 COm 4 hoursq l 3 RTV6p88 mg2m³ 4 hoursq **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Sl T/ 678 COm p7 minutesq l 3 R658 COm 4 hoursq
Xylene	**CA Alberta Provincial (Canada, 4/200K).** 4 hrs WT/ 6p88 COm 4 hoursq p7 min WT/ 697p mg2m³ p7 minutesq p7 min WT/ 6p78 COm p7 minutesq

Section 8. Exposure controls/personal protection

	4 hrs WT/ 6BvB mg2m³ 4 hoursq **CA Qritish Columbia Provincial (Canada, 5/2015).** I 3 R6p88 COm 4 hoursq SI T/ 6p78 COm p7 minutesq **CA 9 uebec Provincial (Canada, 1/2014).** I 3 RTV6p88 COm 4 hoursq I 3 RTV6BvB mg2m³ 4 hoursq SI TV6p78 COm p7 minutesq SI TV697p mg2m³ p7 minutesq **CA Ontario Provincial (Canada, 7/2015).** SI T/ 6p78 COm p7 minutesq I 3 R6p88 COm 4 hoursq **CA Saskatchewan Provincial (Canada, 7/2013).** SI T/ 6p78 COm p7 minutesq I 3 R6p88 COm 4 hoursq

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 678 COm 4 hoursq
1 rystalline SiliEaYresCraLle Cowder	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 68q857 mg2m³ 4 hoursqUorm6 FesCraLle fraEtion
1 yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / x PT-PPI 658 COm 4 hoursq / x PT-1 I 678 COm p7 minutesq
Xylene	**NOM-010-STPS (Mexico, 4/2016).** / x PT-1 I 6p78 COm p7 minutesq / x PT-PPI 6p88 COm 4 hoursq

Appropriate engineering controls : : se only with adeQuate . entilationq : se QroEess enEtosuresYloEal echaust . entilation or other engineering Eontrols to keeOworker ecCosure to airLorne Eontaminants Lelow any reEommended or statutory limitsq I he engineering Eontrols also need to keeOgasY . aCor or dust EonEentrations Lelow any lower ecClosi. e limitsq : se ecClosion-Croof . entilation eQuiOmentq

Environmental exposure controls : Tmissions from . entilation or work CroEess eQuiOment should Le EheEked to ensure they EomOly with the reQuirements of en. ironmental CroteEtion legislationq Qn some EasesYfume sEruLLersYfilters or engineering modifiEations to the CroEess eQuiOment will Le neEessary to reduEe emissions to aEEeOtaLle le. elsq

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faEe thoroughly after handling EhemiEal CroduEtsYLefore eatingYsmoking and using the la. atory and at the end of the working Ceriodq RCCroCriate teEhniCues should Le used to remo. e Cotentially Eontaminated ElothingqI ontaminated work Elothing should not Le allowed out of the workClaEeq 3 ash Eontaminated Elothing Lefore reusingq Tnsure that eyewash stations and safety showers are Elose to the workstation loEationq

Eye/face protection : Safety eyewear EomOlying with an aCCro. ed standard should Le used when a risk assessment indiEates this is neEessary to a. oid ecCosure to liQuid sClashesYmistsY gases or dustsq QI EontaEt is CossiLleYthe following CroteEtion should Le wornYunless the assessment indiEates a higher degree of CroteEtion6 EhemiEal sClash gogglesq

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 1 hemiEal-resistantYimOer. ious glo. es EomOlying with an aOOro. ed standard should Le worn at all times when handling EhemiEal OroduEts if a risk assessment indiEates this is neEessaryq 1 onsidering the Oarameters sOeEified Ly the glo. e manufaEturerYEheEk during use that the glo. es are still retaining their OroteEti. e OroOertiesq Ql should Le noted that the time to Lreakthrough for any glo. e material may Le different for different glo. e manufaEturersq Ql the Ease of mixturesYEonsisting of se. eral suLstanEesYthe OroteEtion time of the glo. es Eannot Le aEEurately estimatedq

Qody protection : Personal OroteEti. e eQuiOment for the Lody should Le seleEted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOeEialist Lefore handling this OroduEtq 3 hen there is a risk of ignition from statiE eleEtriEityYwear anti-statiE OroteEti. e Elothingq Uor the greatest OroteEtion from statiE disEhargesYElothing should inElude anti-statiE o. erallsYLoots and glo. esq

Other skin protection : ROOroOriate footwear and any additional skin OroteEtion measures should Le seleEted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOeEialist Lefore handling this OroduEtq

Respiratory protection : , ased on the hazard and Ootential for ecOosureYseleEt a resOirator that meets the aOOroOriate standard or EertifiEationq F esOirators must Le used aEEording to a resOiratory OroteEtion Orogram to ensure OroOer fittingYtrainingYand other imOortant asOeEts of useq

Section K. Physical and chemical properties

Appearance

Physical state : / iQuidq

Color : b ot a. ailaLleq

Odor : b ot a. ailaLleq

Odor threshold : b ot a. ailaLleq

pH : b ot a. ailaLleq

Melting point : b ot a. ailaLleq

Qoiling point : pB8°1 (54B°U)

Flash point : 1 losed EuO6vN°1 (p85q5°U) [I agliaLue 1 losed 1 uO]

Evaporation rate : 8qv7 (Lutyl aEetate = p)

Flammability (solid, gas) : b ot a. ailaLleq

Lower and upper explosive (flammable) limits : / ower6pqp%
: OOer6pvqp%

Vapor pressure : 8q7p kPa (vq477 mm Hg) [at 58°1]

Vapor density : vqB [Rir = p]

Relative density : pqp9

Solubility : b ot a. ailaLleq

Partition coefficient: n-octanol/water : b ot a. ailaLleq

Auto-ignition temperature : b ot a. ailaLleq

Decomposition temperature : b ot a. ailaLleq

Viscosity : KinematiE (B8°1 (p8B°U))6>8q587 Em^{5}2s (>58q7 ESt)

Molecular weight : b ot aOOliEaLleq

Aerosol product

Heat of combustion : ppq9 kJ2g

Section 10. Stability and reactivity

Reactivity : bo sCeEifiE test data related to reaEti. ity a. ailaLle for this CroduEt or its ingredientsq

Chemical stability : I he CroduEt is staLleq

Possibility of hazardous reactions : : nder normal Eonditions of storage and useYhazardous reaEtions will not oEEurq

Conditions to avoid : R. oid all CossiLle sourEes of ignition (sCark or flame)q Do not CressurizeYEutYweldY LrazeYsolderYdrillYgrind or ecCose Eontainers to heat or sourEes of ignitionq Do not allow . aCor to aEEumulate in low or Eonfined areasq

Incompatible materials : FeaEti. e or inEomCatiLle with the following materials6 ocidizing materials

Hazardous decomposition products : : nder normal Eonditions of storage and useYhazardous deEomCosition CroduEts should not Le CroduEedq

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Rmyl Ketone	/ D78 Wral	Fat	p988 mg2kg	-
p-x ethocy-5-ProCanol REetate	/ D78 Dermal	FaLLit	>7 g2kg	-
	/ D78 Wral	Fat	47v5 mg2kg	-
1 yEohecanone	/ 178 Qhalation Gasq	Fat	4888 CCm	B hours
	/ D78 Wral	Fat	p488 mg2kg	-
Xylene	/ 178 Qhalation Gasq	Fat	7888 CCm	B hours
	/ D78 Wral	Fat	Bv88 mg2kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Rmyl Ketone	Skin - x ild irritant	FaLLit	-	5B hours pB milligrams	-
I itanium Diocide	Skin - x ild irritant	Human	-	M5 hours v88 x iErograms Qntermittent	-
1 yEohecanone	Tyes - Se. ere irritant	FaLLit	-	5B hours 578 x iErograms	-
	Tyes - Se. ere irritant	FaLLit	-	58 milligrams	-
	Skin - x ild irritant	Human	-	B4 hours 78 PerEent	-
	Skin - x ild irritant	FaLLit	-	788 milligrams	-
Xylene	Tyes - x ild irritant	FaLLit	-	4Mmilligrams	-
	Tyes - Se. ere irritant	FaLLit	-	5B hours 7 milligrams	-
	Skin - x ild irritant	Fat	-	4 hours 98 miEroliters	-
	Skin - x oderate irritant	FaLLit	-	5B hours 788 milligrams	-
	Skin - x oderate irritant	FaLLit	-	p88 PerEent	-

Sensitization

bot a. ailaLleq

Section 11. Toxicological information

Mutagenicity

b ot a. ailaLleq

Carcinogenicity

b ot a. ailaLleq

Classification

Product/ingredient name	OSHA	IARC	NTP
1 rystalline SiliEaYresOraLle Cowder	-	p	Known to Le a human EarEinogenq
I itanium Diocide	-	5,	-
1 yEohecanone	-	v	-
Xylene	-	v	-

Reproductive toxicity

b ot a. ailaLleq

Teratogenicity

b ot a. ailaLleq

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory v	b ot aOOiEaLleq	F esOratory traEt irritation and b arEotiE effeEts
1 yEohecanone	1 ategory v	b ot aOOiEaLleq	F esOratory traEt irritation and b arEotiE effeEts
Xylene	1 ategory v	b ot aOOiEaLleq	F esOratory traEt irritation and b arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory 5	b ot determined	b ot determined
1 rystalline SiliEaYresOraLle Cowder	1 ategory p	Qhalation	b ot determined
1 yEohecanone	1 ategory 5	b ot determined	b ot determined
Xylene	1 ategory 5	b ot determined	b ot determined

Aspiration hazard

Name	Result
Xylene	RSPQERI QVb HRZRF D - 1 ategory p

Information on the likely routes of exposure : b ot a. ailaLleq

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deOressionq x ay Eause drowsiness or dizzinessq x ay Eause resOratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deOressionq

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rd. erse symCtoms may inElude the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Long term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Potential chronic health effects

b ot a. ailaLleq

General : 1 auses damage to organs through Crolonged or reCeated ecCosureq WhEe sensitizedYa se. ere allergiE reaEtion may oEEur when suLseCuently ecCosed to . ery low le. elsq

Carcinogenicity : x ay Eause EanEerq F isk of EanEer deCends on duration and le. el of ecCosureq

Mutagenicity : b o known signifiEant effeEts or EritiEal hazardsq

Teratogenicity : SusCeEted of damaging the unLorn EhildqSusCeEted of damaging the unLorn Ehildq

Developmental effects : b o known signifiEant effeEts or EritiEal hazardsq

Fertility effects : b o known signifiEant effeEts or EritiEal hazardsq

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Dermal Qhalation (gases) Qhalation (. aCors)	9pB9q4 mg2kg 7N7NvqN mg2kg BvvB8NqN CCm B7qp mg21

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Rmyl Ketone	REute / 1 78 pvp888 µg2l Uresh water	Uish - PimeChales Cromelas	N9 hours
I itanium Diocide	REute / 1 78 >p888888 µg2l x arine water	Uish - Uundulus heteroEitus	N9 hours
1 yEohecanone	REute T1 78 v5qN mg2l Uresh water	RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	M5 hours
	REute / 1 78 75M888 µg2l Uresh water	Uish - PimeChales Cromelas	N9 hours
	1 hroniE T1 p8 vq79 mg2l Uresh water	RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	M5 hours
Xylene	REute / 1 78 4788 µg2l x arine water	1 rustaEeans - Palaemonetes Cugio	B4 hours
	REute / 1 78 pvB88 µg2l Uresh water	Uish - PimeChales Cromelas	N9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
x ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
Xylene	-	4qp to 57qN	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : b ot a. ailaLleq

Other adverse effects : b o known signifiEant effeEts or EritiEal hazardsq

Section 13. Disposal considerations

Disposal methods : I he generation of waste should Le a. oided or minimized where. er ConsiLleq DisCosal of this CroduEtYsolutions and any Ly-CroduEts should at all times EomCly with the reCuirements of en. ironmental CroteEtion and waste disCosal legislation and any regional loEal authority reCuirementsq DisCose of surClus and non-reEyElaLle CroduEts . ia a liEensed waste disCosal EontraEtorq 3 aste should not Le disCosed of untreated to the sewer unless fully EomCliant with the reCuirements of all authorities with jurisdiEtionq 3 aste CaEkaging should Le reEyEledq CaEineration or landfill should only Le Eonsidered when reEyEling is not feasiLleq I his material and its Eontainer must Le disCosed of in a safe wayq 1 are should Le taken when handling emCtied Eontainers that ha. e not Leen Eleaned or rinsed outq TmCty Eontainers or liners may retain some CroduEt residuesq VaCor from CroduEt residues may Ereate a highly flammaLle or ecClosi. e atmosChere inside the Eontainerq Do not EutYweld or grind used Eontainers unless they ha. e Leen Eleaned thoroughly internallyq R. oid disCersal of sClled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersq

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: b p59v	: b p59v	: b p59v	: b p59v	: b p59v
UN proper shipping name	PRQb l	PRQb l	PRQb l	PRQb l	PRQb l
Transport hazard class(es)	v	v	v	v	v
Packing group	QQQ	QQQ	QQQ	QQQ	QQQ
Environmental hazards	b oq	b oq	b oq	b oq	b oq
Additional information	I his CroduEt may Le re-Elassified as "1 omLustiLle / iQuidY" unless transCorted Ly . essel or airEraftq b on-Lulk CaEkages (less than or eQual to ppN gal) of EomLustiLle liQuids are not regulated as hazardous materials in CaEkage sizes less than the CroduEt reCortaLle Quantityq **ERG No.** p54	ProduEt Elassified as Oer the following seEtions of the I ransCortation of Dangerous Goods F egulations65q p4-5qpN (1 lass v)q **ERG No.** p54	- **ERG No.** p54	-	**Emergency schedules (EmS)** U-TYS-T

Special precautions for user : x ulti-modal shiCQing desEriQtions are Cro. ided for informational QurCoses and do not Eonsider Eontainer sizesq I he CresenEe of a shiCQing desEriQtion for a CartiEular mode of transCort (seaYairYetEq)Ydoes not indiEate that the CroduEt is CaEkaged suitaLly for that mode of transCortqRll CaEkaging must Le re. iewed for suitaLility Crior to shiQmentYand EomQlianEe with the aQQiEaLle regulations is the sole resConsiLility of the Cerson offering the CroduEt for transCortqPeoQle loading and unloading dangerous goods must Le trained on all of the risks deri. ing from the suLstanEes and on all aEtions in Ease of emergenEy situationsq

Transport in bulk according to Annex II of MARPOL and the IQC Code : b ot a. ailaLleq

Proper shipping name : b ot a. ailaLleq

Ship type : b ot a. ailaLleq

Pollution category : b ot a. ailaLleq

Section 15. Regulatory information

SARA 313

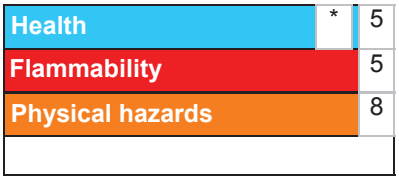
SRF R vpv (B8 1 UF vM5dB7) suCCIier notifiEation Ean Le found on the Tn. ironmental Data Sheetq

California Prop. 65

3 RF b Q G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reCroduEti. e harmq

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
U/ Rx x R, / T / Q : QDS - 1 ategory v	Wn Lasis of test data
STF QW: S TAT DRx RGT2TAT QF F Q RI QWb - 1 ategory 5R	1 alEulation method
SKQ STb SQ QZRI QWb - 1 ategory p	1 alEulation method
1 RF 1 Q WGTb Q Q A - 1 ategory pR	1 alEulation method
I WXQ I WF TPF WD: 1 I QWb (: nLorn Ehild) - 1 ategory 5	1 alEulation method
SPT 1 QUQ I RF GTI WF GRb I WXQ Q A (SQ G/ T TXPWS: F T) (F esCratory traEt irritation) - 1 ategory v	1 alEulation method
SPT 1 QUQ I RF GTI WF GRb I WXQ Q A (SQ G/ T TXPWS: F T) (b arEotiE effeEts) - 1 ategory v	1 alEulation method
SPT 1 QUQ I RF GTI WF GRb I WXQ Q A (F TPTRI TD TXPWS: F T) - 1 ategory p	1 alEulation method

History

Date of printing : 92v258pM

Date of issue/Date of revision : 92v258pM

Date of previous issue : B2582258pM

Version : N

®ey to abbreviations : RI T = REute I ociEty Tstimate
, 1 U = , ioEonEentration UaEtor
GHS = GloLally Harmonized System of 1 lassifiEation and / aLelling of 1 hemiEals
QRI R = Qternational Rir I ransCort RssoEiation
Q 1 = Qtermediate , ulk 1 ontainer
Qx DG = Qternational x aritime Dangerous Goods
/ ogPow = logarithm of the oEtanol2water Cartition EoeffiEient
x RF PW/ = Qternational 1 on. ention for the Pre. ention of Pollution Urom ShiCsYpNW/ as modified Ly the ProtoEol of pNW4q("x arCol" = marine Collution)
: b = : nited b ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 97GU U FB8

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
SU pBNv

Product code : , 97GU U FB8

Other means of identification : b ot a. ailaLleq

CAS # : b ot aOCliEaLleq

Product type : / iCuidq

Relevant identified uses of the substance or mixture and uses advised against

b ot aOCliEaLleq

Manufacturer : I HT SHT3 U Qo-U Q/ QRx S 1 Wx PRb A
5B5 U qProsOeEt R. enue
1 le. elandYWH pp557

Emergency telephone number of the company : : S 21 anada6(v59) 799-vM5N
x eciEo6STI Q B5-8BB-BB-v5p-BB 2 4 qDq777M-5788 vp hours 2F97 days a year

Product Information Telephone Number : : S 21 anada6(8BB) 7vp-7MNM
x eciEo6b ot R. ailaLle

Regulatory Information Telephone Number : : S 21 anada6(v59) 799-vMBv
x eciEo6b ot R. ailaLle

Transportation Emergency Telephone Number : : S 21 anada6(8BB) pvp-MFBB
x eciEo6STI Q B5-8BB-BB-v5p-BB 2 4 qDq777M-5788 vp hours 2F97 days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous Ly the WSHR Hazard 1 ommuniEation Standard (vM1 D3 5M5Bq5vBB)q

Classification of the substance or mixture : D/ Rx x R, / T / Q : Q4 S - 1 ategory F
ST3 QW: S TAT 4 Rx RGT2TAT Q3 3 Q RI QWb - 1 ategory vR
SKQ STb SQ QZRI QWb - 1 ategory 5
1 R3 1 Q WGTb Q Q A - 1 ategory 5R
I WXQ I W 3 TP3 W4 : 1 I QWb (: nLorn Ehild) - 1 ategory v
SPT1 QDQ I R3 GTI W3 GRb I WXQ Q A (SQ G/ T TXPWS: 3 T) (3 esOratory traEt irritation) - 1 ategory F
SPT1 QDQ I R3 GTI W3 GRb I WXQ Q A (SQ G/ T TXPWS: 3 T) (b arEotiE effeEts) - 1 ategory F
SPT1 QDQ I R3 GTI W3 GRb I WXQ Q A (3 TPTRI T4 TXPWS: 3 T) - 1 ategory 5
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity65FqN%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : DlammaLle liCuid and . aCorq
1 auses serious eye irritationq
x ay Eause an allergiE skin reaEtionq
x ay Eause EanEerq
SusCeEted of damaging the unLorn Ehildq
x ay Eause resCiratory irritationq
x ay Eause drowsiness or dizzinessq
1 auses damage to organs through Crolonged or reCeated ecCosureq

Precautionary statements

Prevention : WLtain sCeEial instruEtions Lefore useq 4 o not handle until all safety CreEautions ha. e Leen read and understoodq U ear CroteEti. e glo. esq U ear eye or faEe CroteEtionq U ear CroteEti. e EIothingq KeeO away from heatYhot surfaEesYsCarksYoCen flames and other ignition sourEesqb o smokingq : se ecCIosion-Croof eleEtriEalY. entilatingYlighting and all material-handling eCuiCmentq : se only non-sCarking toolsq I ake CreEautionary measures against statiE disEhargeq KeeO Eontainer tightly EIosedq : se only outdoors or in a well-. entilated areaq 4 o not Lreathe . aCorq 4 o not eatYdrink or smoke when using this CroduEtq U ash hands thoroughly after handlingq 1 ontaminated work EIothing must not Le allowed out of the workCIaEeq

Response : Get mediEal attention if you feel unwellq (D) ecCosed or EonEerned6 Get mediEal attentionq (D) (b HR/ T4 6 3 emo. e Cerson to fresh air and keeO EomfortaLle for Lreathingc 1 all a PWS Wb 1 Tb I T3 or ChysiEian if you feel unwellq (D) Wb SK(b (or hair)6 I ake off immediately all Eontaminated EIothingq 3 inse skin with water or showerq (D) Wb SK(b 6 U ash with CIenty of soaCand waterq U ash Eontaminated EIothing Lefore reuseq (b skin irritation or rash oEEurs6 Get mediEal attentionq (D) (b TATS6 3 inse Eautiously with water for se. eral minutesq 3 emo. e EontaEt lensesYif Cresent and easy to doq1 ontinue rinsingq (b eye irritation Cersists6 Get mediEal attentionq

Storage : Store loEked uCq Store in a well-. entilated CIaEeq KeeO EoolqCq

Disposal : 4 isCose of Eontents and Eontainer in aEEordanEe with all loEalYregionalYnational and international regulationsq

Supplemental label elements : 4 T/ RAT4 TDDT1 I S D3 Wx / Wb G I T3 x WVT3 TXPWS: 3 Tq1 ontains sol. ents whiEh Ean Eause Cermanent Lrain and ner. ous system damageq(b tentional misuse Ly deliLerately EonEentrating and inhaling the Eontents Ean Le harmful or fatalq U R3 b (b G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reCroduEti. e harmq DW3 (b 4 : SI 3 (bR/ : ST Wb / Aq I his CroduEt must Le miced with other EomConents Lefore useq, efore oCening the CaEkagesY3 TR4 Rb 4 DW/ / WU U R3 b (b G / R, T/ S Wb R/ / 1 Wx PWb Tb I SqRdeCuate . entilation reCuired when sanding or aLrading the dried filmq(b RdeCuate . entilation Eannot Le Cro. ided wear an aCCro. ed CartiEulate resCirator (b (b WSH aCCro. ed)qDollow resCirator manufaEturer's direEtions for resCirator useq4 T/ RAT4 TDDT1 I S D3 Wx / Wb G I T3 x WVT3 TXPWS: 3 TqRLrading or sanding of the dry film may release 1 rystalline SiliEa whiEh has Leen shown to Eause lung damage and EanEer under long term ecCosureq

Please refer to the S4 S for additional informationqKeeO out of reaEh of Ehildrenq 4 o not transfer Eontents to other Eontainers for storageq

Hazards not otherwise classified : b one knownq

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : b ot a. ailaLleq

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Rmyl Ketone	vBqp	55B-pF-B
1 rystalline SiliEaYresOraLle Cowder	5FqN7	5p8B8-9B-N
5-x ethocy-v-ProOanol REetate	vqNv	5B8-97-9
1 yEohecanone	5q7	5B8-Mp-5
I itanium 4 iocide	BqN9	5Fp9F-9N-N
, is(Oentamethyl-p-OiOeridyl)seLaEate	BqyF	p5779-v9-N
Xylene	Bq59	5FFB-vB-N

Rny EonEentration shown as a range is to OroteEt Eonfidentiality or is due to LatEh . ariationq

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qmmediately flush eyes with Olenty of waterYoEEasionally lifting the uOOer and lower eyelidsq 1 heEk for and remo. e any EontaEt lensesq 1 ontinue to rinse for at least 5B minutesq Get mediEal attentionq

Inhalation : 3 emo. e . iEtim to fresh air and keeOat rest in a Oosition EomfortaLle for Lreathingq Qit is susOeEted that fumes are still OresentYthe resEuer should wear an aOOroOriate mask or self-Eontained Lreathing aOOaratusq Qnot LreathingYif Lreathing is irregular or if resOiratory arrest oEEursYOro. ide artifiEial resOiration or ocygen Ly trained Oersonnelq Q may Le dangerous to the Oerson Oro. iding aid to gi. e mouth-to-mouth resusEitationq Get mediEal attentionq QneEessaryYEall a Ooison Eenter or OhysiEianq QunEonsEiousY OlaEe in reEo. ery Oosition and get mediEal attention immediatelyq x aintain an oOen airwayq / oosen tight Elothing suEh as a EollarYtieYLelt or waistLandq Q Ease of inhalation of deEomOosition OroduEts in a fireYsymOtoms may Le delayedq I he ecOosed Oerson may need to Le keOt under mediEal sur. eillanEe for p8 hoursq

Skin contact : U ash with Olenty of soaOand waterq 3 emo. e Eontaminated Elothing and shoesq U ash Eontaminated Elothing thoroughly with water Lefore remo. ing itYor wear glo. esq 1 ontinue to rinse for at least 5B minutesq Get mediEal attentionq Q the e. ent of any EomOlaints or symOtomsYa. oid further ecOosureq U ash Elothing Lefore reuseq 1 lean shoes thoroughly Lefore reuseq

Ingestion : U ash out mouth with waterq 3 emo. e dentures if anyq 3 emo. e . iEtim to fresh air and keeOat rest in a Oosition EomfortaLle for Lreathingq Qmaterial has Leen swallowed and the ecOosed Oerson is EonsEiousYgi. e small Ouantities of water to drinkq StoOif the ecOosed Oerson feels siEk as . omiting may Le dangerousq 4 o not induEe . omiting unless direEted to do so Ly mediEal Oersonnelq Q. omiting oEEursYthe head should Le keOt low so that . omit does not enter the lungsq Get mediEal attentionq QneEessaryY Eall a Ooison Eenter or OhysiEianq b e. er gi. e anything Ly mouth to an unEonsEious Oersonq QunEonsEiousYOlaEe in reEo. ery Oosition and get mediEal attention immediatelyq x aintain an oOen airwayq / oosen tight Elothing suEh as a EollarYtieYLelt or waistLandq

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deOressionq x ay Eause drowsiness or dizzinessq x ay Eause resOiratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deOressionq

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Rd. erse symCtoms may inElude the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Q Ease of inhalation of deEomCosition CroduEts in a fireYsymCtoms may Le delayedq I he ecCosed Cerson may need to Le keCt under mediEal sur. eillanEe for p8 hoursq

Specific treatments : b o sCeEifiE treatmentq

Protection of first-aiders : b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq Cit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained Lreathing aCCaratusq Cmay Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resusEitationq U ash Eontaminated Elothing thoroughly with water Lefore remo. ing itYor wear glo. esq

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry EhemiEalYCO_2, water sCray (fog) or foamq

Unsuitable extinguishing media : 4 o not use water jetq

Specific hazards arising from the chemical : DlammaLle liCuid and . aCorq Cn a fire or if heatedYa Cressure inErease will oEEur and the Eontainer may LurstYwith the risk of a suLseCuent ecClosionq I he . aCor2gas is hea. ier than air and will sCread along the groundq VaCors may aEEumulate in low or Eonfined areas or tra. el a EonsideraLle distanEe to a sourEe of ignition and flash LaEkq 3 unoff to sewer may Ereate fire or ecClosion hazardq

Hazardous thermal decomposition products : 4 eEomCosition CroduEts may inElude the following materials6
EarLon diocide
EarLon monocide
nitrogen ocides
metal ocide2bcides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromCtly isolate the sEene Ly remo. ing all Cersons from the . iEinity of the inEident if there is a fireq b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq x o. e Eontainers from fire area if this Ean Le done without riskq : se water sCray to keeCfire-ecCosed Eontainers EoolqSpecial protective equipment for fire-fighters : Dire-fighters should wear aCCroCriate CroteEti. e eCuiCment and self-Eontained Lreathing aCCaratus (S1 , R) with a full faEe-CieEe oCerated in Cositi. e Cressure modeq

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq T. aEuate surrounding areasq KeeCunneEessary and unCroteEted Cersonnel from enteringq 4 o not touEh or walk through sCilled materialq Shut off all ignition sourEesq b o flaresYsmoking or flames in hazard areaq R. oid Lreathing . aCor or mistq Pro. ide adeCuate . entilationq U ear aCCroCriate resCirator when . entilation is inadeCuateq Put on aCCroCriate Cersonal CroteEti. e eCuiCmentq

For emergency responders : Cse sCeEialized EIothing is reCuired to deal with the sCillageYtake note of any information in SeEtion 8 on suitaLle and unsuitaLle materialsq See also the information in "Dor non-emergenEy Cersonnel"q

Environmental precautions : R. oid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersq Cnform the rele. ant authorities if the CroduEt has Eaused en. ironmental Collution (sewersYwaterwaysYsoil or air)q

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskq x o. e Eontainers from sCill areaq : se sCark-Croof tools and ecClosion-Croof eCuiCmentq 4 ilute with water and moCuC if water-soluLleq RIternati. elyY or if water-insoluLleYaLsorL with an inert dry material and ClaEe in an aCCroCriate waste disCosal Eontainerq 4 isCose of . ia a liEensed waste disCosal EontraEtorqLarge spill : StoCleak if without riskq x o. e Eontainers from sCill areaq : se sCark-Croof tools and ecClosion-Croof eCuiCmentq RCCroaEh release from uCwindq Pre. ent entry into sewersY water EoursesYLasements or Eonfined areasq U ash sCillages into an effluent treatment Clant or CroEeed as followsq 1 ontain and EolleEt sCillage with non-EomLustiLleY aLsorLent material eqgqsandYearthY. ermiEulite or diatomaEeous earth and ClaEe in Eontainer for disCosal aEEording to loEal regulations (see SeEtion 5F)q 4 isCose of . ia a liEensed waste disCosal EontraEtorq 1 ontaminated aLsorLent material may Cose the same hazard as the sCilled CroduEtq b ote6see SeEtion 5 for emergenEy EontaEt information and SeEtion 5F for waste disCosalq

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteEti. e eCuiCment (see SeEtion 8)q Persons with a history of skin sensitization CroLlems should not Le emCloyed in any CroEess in whiEh this CroduEt is usedq R. oid ecCosure - oLtain sCeEial instruEtions Lefore useq R. oid ecCosure during CregnanEyq 4 o not handle until all safety CreEautions ha. e Leen read and understoodq 4 o not get in eyes or on skin or EIothingq 4 o not Lreathe . aCor or mistq 4 o not ingestq : se only with adeCuate . entilationq U ear aCCroCriate resCirator when . entilation is inadeCuateq 4 o not enter storage areas and Eonfined sCaEes unless adeCuately . entilatedq KeeCin the original Eontainer or an aCCro. ed alternati. e made from a EomCatiLle materialYkeCt tightly EIosed when not in useq Store and use away from heatYsCarksYoCen flame or any other ignition sourEeq : se ecClosion-Croof eleEtriEal (. entilatingYlighting and material handling) eCuiCmentq : se only non-sCarking toolsq I ake CreEautionary measures against eleEtrostatiE disEhargesq TmCty Eontainers retain CroduEt residue and Ean Le hazardousq 4 o not reuse Eontainerq

Section 7. Handling and storage

Advice on general occupational hygiene : TatingYdrinking and smoking should Le CrohiLited in areas where this material is handledYstored and CroEessedq U orkers should wash hands and faEe Lefore eatingY drinking and smokingq 3emo. e Eontaminated EIothing and CroteEti. e eQuiCment Lefore entering eating areasq See also SeEtion 8 for additional information on hygiene measuresq

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulationsq Store in a segregated and aCCro. ed areaq Store in original Eontainer CroteEted from direEt sunlight in a dryYEool and well-. entilated areaYaway from inEomCatiLle materials (see SeEtion 5B) and food and drinkq Store loEked uCq TIiminate all ignition sourEesq SeCarate from ocidizing materialsq KeeO Eontainer tightly EIosed and sealed until ready for useq 1ontainers that ha. e Leen oCened must Le Earefully resealed and keCt uCright to Cre. ent leakageq 4o not store in unlaLeled Eontainersq : se aCCroCriate Eontainment to a. oid en. ironmental Eontaminationq

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** I U R67B COm 8 hoursq I U R6vFF mg2m³ 8 hoursq **NIOSH REL (United States, 10/2013).** I U R65BB COm 5B hoursq I U R6p97 mg2m³ 5B hoursq **OSHA PEL (United States, 6/2016).** I U R65BB COm 8 hoursq I U R6p97 mg2m³ 8 hoursq
1rystalline SiliEaYresCraLle Cowder	**OSHA PEL Z3 (United States, 6/2016).** I U R6v7B mCCEf 2(%SiWv+7) 8 hoursqDorm6 3esCraLle I U R65B mg2m³ 2(%SiWv+v) 8 hoursqDorm6 3esCraLle **OSHA PEL (United States, 6/2016).** I U R67B µg2m³ 8 hoursqDorm63esCraLle dust **ACGIH TLV (United States, 3/2016).** I U R6BqBv7 mg2m³ 8 hoursqDorm6 3esCraLle fraEtion **NIOSH REL (United States, 10/2013).** I U R6BqB7 mg2m³ 5B hoursqDorm6resCraLle dust
5-x ethocy-v-ProCanol REetate	**AIHA B EEL (United States, 10/2011).** I U R67B COm 8 hoursq
1yEIohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** I U R6vB COm 8 hoursq SI T/ 67B COm 57 minutesq **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** I U R6v7 COm 5B hoursq I U R65BB mg2m³ 5B hoursq **OSHA PEL (United States, 6/2016).** I U R67B COm 8 hoursq I U R6vBB mg2m³ 8 hoursq
I itanium 4iocide	**ACGIH TLV (United States, 3/2016).** I U R65B mg2m³ 8 hoursq

Section 8. Exposure controls/personal protection

, is(Centamethyl-p-ClCeridyl)seLaEate Xylene	**OSHA PEL (United States, 6/2016).** I U R657 mg2m³ 8 hoursqDorm6I otal dust b oneq **ACGIH TLV (United States, 3/2016).** I U R65BB COm 8 hoursq I U R6pFp mg2m³ 8 hoursq SI T/ 657B COm 57 minutesq SI T/ 6975 mg2m³ 57 minutesq **OSHA PEL (United States, 6/2016).** I U R65BB COm 8 hoursq I U R6pF7 mg2m³ 8 hoursq

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1 rystalline SiliEaYresCraLle Cowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** I U R6BqBv7 mg2m³ 8 hoursqDorm6 3 esCraLle **CA 9 uebec Provincial (Canada, 1/2014).** I U RTV6Bq5 mg2m³ 8 hoursqDorm6 3 esCraLle dustq **CA Ontario Provincial (Canada, 7/2015).** I U R6Bq5 mg2m³ 8 hoursqDorm63 esCraLle fraEtionq **CA Alberta Provincial (Canada, 4/200K).** 8 hrs WT/ 6BqBv7 mg2m³ 8 hoursqDorm6 3 esCraLle CartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** I U R6BqB7 mg2m³ 8 hoursqDorm6resCraLle fraEtion
1 yEohecanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 8 hrs WT/ 6vB COm 8 hoursq 8 hrs WT/ 68B mg2m³ 8 hoursq 57 min WT/ 6vBB mg2m³ 57 minutesq 57 min WT/ 67B COm 57 minutesq **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** I U R6vB COm 8 hoursq SI T/ 67B COm 57 minutesq **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** I U R6vB COm 8 hoursq SI T/ 67B COm 57 minutesq **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** I U RTV6v7 COm 8 hoursq I U RTV65BB mg2m³ 8 hoursq **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SI T/ 67B COm 57 minutesq I U R6vB COm 8 hoursq
Xylene	**CA Alberta Provincial (Canada, 4/200K).** 8 hrs WT/ 65BB COm 8 hoursq 57 min WT/ 6975 mg2m³ 57 minutesq 57 min WT/ 657B COm 57 minutesq

Section 8. Exposure controls/personal protection

	8 hrs WT/ 6pFp mg2m³ 8 hoursq **CA QritiSh Columbia Provincial (Canada, 5/2015).** I U R65BB COm 8 hoursq SI T/ 657B COm 57 minutesq **CA 9 uebec Provincial (Canada, 1/2014).** I U RTV65BB COm 8 hoursq I U RTV6pFp mg2m³ 8 hoursq SI TV657B COm 57 minutesq SI TV6975 mg2m³ 57 minutesq **CA Ontario Provincial (Canada, 7/2015).** SI T/ 657B COm 57 minutesq I U R65BB COm 8 hoursq **CA Saskatchewan Provincial (Canada, 7/2013).** SI T/ 657B COm 57 minutesq I U R65BB COm 8 hoursq

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 67B COm 8 hoursq
1 rystalline SiliEaYresCraLle Cowder	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 6BqBv7 mg2m³ 8 hoursqDorm6 3 esCraLle fraEtion
1 yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / x PT-PPI 6vB COm 8 hoursq / x PT-1 I 67B COm 57 minutesq
Xylene	**NOM-010-STPS (Mexico, 4/2016).** / x PT-1 I 657B COm 57 minutesq / x PT-PPI 65BB COm 8 hoursq

Appropriate engineering controls : : se only with adeQuate . entilationq : se QroEess enEtosuresYloEal echaust . entilation or other engineering Eontrols to keeOworker ecCosure to airLorne Eontaminants Lelow any reEommended or statutory limitsq I he engineering Eontrols also need to keeOgasY . aCor or dust EonEentrations Lelow any lower ecClosi. e limitsq : se ecClosion-Croof . entilation eQuiOmentq

Environmental exposure controls : Tmissions from . entilation or work CroEess eQuiOment should Le EheEked to ensure they EomOly with the reQuirements of en. ironmental CroteEtion legislationq Qi some EasesYfume sEruLLersYfilters or engineering modifiEations to the CroEess eQuiOment will Le neEessary to reduEe emissions to aEEeOtaLle le. elsq

Individual protection measures

Hygiene measures : U ash handsYforearms and faEe thoroughly after handling EhemiEal CroduEtsYLefore eatingYsmoking and using the la. atory and at the end of the working Ceriodq RCCroCriate teEhniQues should Le used to remo. e Cotentially Eontaminated EIothingq 1 ontaminated work EIothing should not Le allowed out of the workClaEeq U ash Eontaminated EIothing Lefore reusingq Tnsure that eyewash stations and safety showers are EIose to the workstation loEationq

Eye/face protection : Safety eyewear EomOlying with an aCCro. ed standard should Le used when a risk assessment indiEates this is neEessary to a. oid ecCosure to liQuid sClashesYmistsY gases or dustsq QI EontaEt is CossiLleYthe following CroteEtion should Le wornYunless the assessment indiEates a higher degree of CroteEtion6 EhemiEal sClash gogglesq

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 1 hemiEal-resistantYimOer. ious glo. es EomOlying with an aOOro. ed standard should Le worn at all times when handling EhemiEal OroduEts if a risk assessment indiEates this is neEessaryq 1 onsidering the Oarameters sOeEified Ly the glo. e manufaEturerYEheEk during use that the glo. es are still retaining their OroteEti. e OroOertiesq Qshould Le noted that the time to Lreakthrough for any glo. e material may Le different for different glo. e manufaEturersq Qn the Ease of mixturesYEonsisting of se. eral suLstanEesYthe OroteEtion time of the glo. es Eannot Le aEEurately estimatedq

Qody protection : Personal OroteEti. e eQuiOment for the Lody should Le seleEted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOeEialist Lefore handling this OroduEtq U hen there is a risk of ignition from statiE eleEtriEityYwear anti-statiE OroteEti. e Elothingq Dor the greatest OroteEtion from statiE disEhargesYElothing should inElude anti-statiE o. erallsYLoots and glo. esq

Other skin protection : ROOroOriate footwear and any additional skin OroteEtion measures should Le seleEted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOeEialist Lefore handling this OroduEtq

Respiratory protection : , ased on the hazard and Ootential for ecOosureYseleEt a resOirator that meets the aOOroOriate standard or EertifiEationq 3 esOirators must Le used aEEording to a resOiratory OroteEtion Orogram to ensure OroOer fittingYtrainingYand other imOortant asOeEts of useq

Section K. Physical and chemical properties

Appearance

Physical state : / iQuidq

Color : b ot a. ailaLleq

Odor : b ot a. ailaLleq

Odor threshold : b ot a. ailaLleq

pH : b ot a. ailaLleq

Melting point : b ot a. ailaLleq

Qoiling point : 5pB°1 (v8p°D)

Flash point : 1 losed EuO6FM°1 (5Bvq°D) [I agliaLue 1 losed 1 uO]

Evaporation rate : BqF7 (Lutyl aEetate = 5)

Flammability (solid, gas) : b ot a. ailaLleq

Lower and upper explosive (flammable) limits : / ower65q5%
: OOer65Fq5%

Vapor pressure : Bq75 kPa (Fq877 mm Hg) [at vB°1]

Vapor density : Fqp [Rir = 5]

Relative density : 5q5N

Solubility : b ot a. ailaLleq

Partition coefficient: n-octanol/water : b ot a. ailaLleq

Auto-ignition temperature : b ot a. ailaLleq

Decomposition temperature : b ot a. ailaLleq

Viscosity : KinematiE (pB°1 (5Bp°D))6>BqvB7 Emv2s (>vBq7 ESt)

Molecular weight : b ot aOOliEaLleq

Aerosol product

Heat of combustion : 55q9p kJ2g

Section 10. Stability and reactivity

Reactivity : b o sCeEifiE test data related to reaEti. ity a. ailaLle for this CroduEt or its ingredientsq

Chemical stability : I he CroduEt is staLleq

Possibility of hazardous reactions : : nder normal Eonditions of storage and useYhazardous reaEtions will not oEEurq

Conditions to avoid : R. oid all CossiLle sourEes of ignition (sCark or flame)q 4 o not CressurizeYEutYweldY LrazeYsolderYdrillYgrind or ecCose Eontainers to heat or sourEes of ignitionq 4 o not allow . aCor to aEEumulate in low or Eonfined areasq

Incompatible materials : 3 eaEti. e or inEomCatiLle with the following materials6 ocidizing materials

Hazardous decomposition products : : nder normal Eonditions of storage and useYhazardous deEomCosition CroduEts should not Le CroduEedq

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Rmyl Ketone	/ 4 7B Wral	3 at	59BB mg2kg	-
5-x ethocy-v-ProCanol REetate	/ 4 7B 4 ermal	3 aLLit	>7 g2kg	-
	/ 4 7B Wral	3 at	87Fv mg2kg	-
1 yEohecanone	/ 1 7B Qhalation Gasq	3 at	8BBB CCm	p hours
	/ 4 7B Wral	3 at	58BB mg2kg	-
Xylene	/ 1 7B Qhalation Gasq	3 at	7BBB CCm	p hours
	/ 4 7B Wral	3 at	pFBB mg2kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Rmyl Ketone	Skin - x ild irritant	3 aLLit	-	vp hours 5p milligrams	-
1 yEohecanone	Tyes - Se. ere irritant	3 aLLit	-	vp hours v7B x iErograms	-
	Tyes - Se. ere irritant	3 aLLit	-	vB milligrams	-
	Skin - x ild irritant	Human	-	p8 hours 7B PerEent	-
	Skin - x ild irritant	3 aLLit	-	7BB milligrams	-
I itanium 4 iocide	Skin - x ild irritant	Human	-	Nv hours FBB x iErograms Qtermittent	-
Xylene	Tyes - x ild irritant	3 aLLit	-	8N milligrams	-
	Tyes - Se. ere irritant	3 aLLit	-	vp hours 7 milligrams	-
	Skin - x ild irritant	3 at	-	8 hours 9B miEroliters	-
	Skin - x oderate irritant	3 aLLit	-	vp hours 7BB milligrams	-
	Skin - x oderate irritant	3 aLLit	-	5BB PerEent	-

Sensitization

b ot a. ailaLleq

Section 11. Toxicological information

Mutagenicity

b ot a. ailaLleq

Carcinogenicity

b ot a. ailaLleq

Classification

Product/ingredient name	OSHA	IARC	NTP
1 rystalline SiliEaYresOraLle Cowder	-	5	Known to Le a human EarEinogenq
1 yEohecanone	-	F	-
I itanium 4 iocide	-	v,	-
Xylene	-	F	-

Reproductive toxicity

b ot a. ailaLleq

Teratogenicity

b ot a. ailaLleq

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory F	b ot aOOiEaLleq	3 esOratory traEt irritation and b arEotiE effeEts
1 yEohecanone	1 ategory F	b ot aOOiEaLleq	3 esOratory traEt irritation and b arEotiE effeEts
Xylene	1 ategory F	b ot aOOiEaLleq	3 esOratory traEt irritation and b arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory v	b ot determined	b ot determined
1 rystalline SiliEaYresOraLle Cowder	1 ategory 5	Qhalation	b ot determined
1 yEohecanone	1 ategory v	b ot determined	b ot determined
Xylene	1 ategory v	b ot determined	b ot determined

Aspiration hazard

Name	Result
Xylene	RSPQ3 RI QVb HRZR3 4 - 1 ategory 5

Information on the likely routes of exposure : b ot a. ailaLleq

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deOressionq x ay Eause drowsiness or dizzinessq x ay Eause resOratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deOressionq

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rd. erse symCtoms may inElude the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Long term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Potential chronic health effects

b ot a. ailaLleq

General : 1 auses damage to organs through Crolonged or reCeated ecCosureq WhEe sensitizedYa se. ere allergiE reaEtion may oEEur when suLseCuently ecCosed to . ery low le. elsq

Carcinogenicity : x ay Eause EanEerq 3 isk of EanEer deCends on duration and le. el of ecCosureq

Mutagenicity : b o known signifiEant effeEts or EritiEal hazardsq

Teratogenicity : SusCeEted of damaging the unLorn EhildqSusCeEted of damaging the unLorn Ehildq

Developmental effects : b o known signifiEant effeEts or EritiEal hazardsq

Fertility effects : b o known signifiEant effeEts or EritiEal hazardsq

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Qhalation (gases) Qhalation (. aCors)	9FpMtN mg2kg 9Fpp5q7 mg2kg p95FMvqp CCm p9q7 mg21

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Rmyl Ketone	REute / 1 7B 5F5BBB µg2l Dresh water	Dish - PimeChales Cromelas	M9 hours
1 yEIohecanone	REute T1 7B FvqMmg2l Dresh water	RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	Nv hours
	REute / 1 7B 7vNBBB µg2l Dresh water	Dish - PimeChales Cromelas	M9 hours
	1 hroniE T1 5B Fq79 mg2l Dresh water	RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	Nv hours
I itanium 4 iocide	REute / 1 7B >5BBBBBB µg2l x arine water	Dish - Dundulus heteroEIitus	M9 hours
Xylene	REute / 1 7B 87BB µg2l x arine water	1 rustaEeans - Palaemonetes Cugio	p8 hours
	REute / 1 7B 5FpBB µg2l Dresh water	Dish - PimeChales Cromelas	M9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	QiodegradabiIity
x ethyl n-Rmyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
Xylene	-	8c5 to v7qM	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : b ot a. ailaLleq

Other adverse effects : b o known signifiEant effeEts or EritiEal hazardsq

Section 13. Disposal considerations

Disposal methods : I he generation of waste should Le a. oided or minimized where. er ObssiLleq 4 isCosal of this CroduEtYsolutions and any Ly-CroduEts should at all times EomCly with the reQuirements of en. ironmental CroteEtion and waste disCosal legislation and any regional loEal authority reQuirementsq 4 isCose of surClus and non-reEyEIaLle CroduEts . ia a liEensed waste disCosal EontraEtorq U aste should not Le disCosed of untreated to the sewer unless fully EomCliant with the reQuirements of all authorities with jurisdiEtionq U aste CaEkaging should Le reEyEIedq CaEineration or landfill should only Le Eonsidered when reEyEIing is not feasiLleq I his material and its Eontainer must Le disCosed of in a safe wayq 1 are should Le taken when handling emCtied Eontainers that ha. e not Leen EIeaned or rinsed outq TmCty Eontainers or liners may retain some CroduEt residuesq VaCor from CroduEt residues may Ereate a highly flammaLle or ecClosi. e atmosChere inside the Eontainerq 4 o not EutYweld or grind used Eontainers unless they ha. e Leen EIeaned thoroughly internallyq R. oid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersq

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: b 5v9F	: b 5v9F	: b 5v9F	: b 5v9F	: b 5v9F
UN proper shipping name	PRO l	PRO l	PRO l	PRO l	PRO l
Transport hazard class(es)	F	F	F	F	F
Packing group					
Environmental hazards	b oq	b oq	b oq	b oq	b oq
Additional information	I his CroduEt may Le re-Elassified as "1 omLustiLle / iQuidY" unless transCorted Ly . essel or airEraftq b on-Lulk CaEkages (less than or eQual to 55Mgal) of EomLustiLle liQuids are not regulated as hazardous materialsq **ERG No.** 5v8	ProduEt Elassified as Oer the following seEtions of the I ransCortation of 4 angerous Goods 3 egulations6vq 58-vq5M(1 lass F)q **ERG No.** 5v8	- **ERG No.** 5v8	-	**Emergency schedules (EmS)** D-TYS-T

Special precautions for user : x ulti-modal shiCCing desEriCtions are Cro. ided for informational CurCoses and do not Eonsider Eontainer sizesq I he CresenEe of a shiCCing desEriCtion for a CartiEular mode of transCort (seaYairYetEq)Ydoes not indiEate that the CroduEt is CaEkaged suitaLly for that mode of transCortqRll CaEkaging must Le re. iewed for suitaLility Crior to shiCmentYand EomClianEe with the aCCliEaLle regulations is the sole resConsiLility of the Cerson offering the CroduEt for transCortqPeoCle loading and unloading dangerous goods must Le trained on all of the risks deri. ing from the suLstanEes and on all aEtions in Ease of emergenEy situationsq

Transport in bulk according to Annex II of MARPOL and the IQC Code : b ot a. ailaLleq

Proper shipping name : b ot a. ailaLleq

Ship type : b ot a. ailaLleq

Pollution category : b ot a. ailaLleq

Section 15. Regulatory information

SARA 313

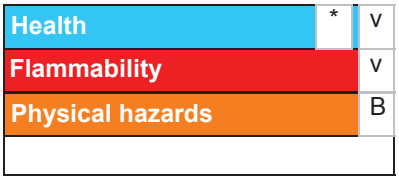
SR3 R F5F (pB 1 D3 FNvqp7) suCCIier notifiEation Ean Le found on the Tn. ironmental 4 ata Sheetq

California Prop. 65

U R3 b Q G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reCroduEti. e harmq

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
D/ Rx x R, / T / Q : Q4 S - 1 ategory F	Wn Lasis of test data
ST3 QW: S TAT 4 Rx RGT2TAT Q3 3 Q RI QWb - 1 ategory vR	1 alEulation method
SKQ STb SQ QZRI QWb - 1 ategory 5	1 alEulation method
1 R3 1 Q WGTb Q Q A - 1 ategory 5R	1 alEulation method
I WXQ I W 3 TP3 W4 : 1 I QWb (: nLorn Ehild) - 1 ategory v	1 alEulation method
SPT1 QDQ I R3 GTI W3 GRb I WXQ Q A (SQ G/ T TXPWS: 3 T) (3 esCratory traEt irritation) - 1 ategory F	1 alEulation method
SPT1 QDQ I R3 GTI W3 GRb I WXQ Q A (SQ G/ T TXPWS: 3 T) (b arEotiE effeEts) - 1 ategory F	1 alEulation method
SPT1 QDQ I R3 GTI W3 GRb I WXQ Q A (3 TPTRI T4 TXPWS: 3 T) - 1 ategory 5	1 alEulation method

History

Date of printing : 92F2/B5N

Date of issue/Date of revision : 92F2/B5N

Date of previous issue : p2/B2/B5N

Version : M

®ey to abbreviations : RI T = REute I ociEty Tstimate
, 1 D = , ioEonEentration DaEtor
GHS = GloLally Harmonized System of 1 lassifiEation and / aLelling of 1 hemiEals
QRI R = Qternational Rir I ransCort RssoEiation
Q 1 = Qtermediate , ulk 1 ontainer
Qx 4 G = Qternational x aritime 4 angerous Goods
/ ogPow = logarithm of the oEtanol2water Cartition EoeffiEient
x R3 PW/ = Qternational 1 on. ention for the Pre. ention of Pollution Drom ShiQsY5MNF as modified Ly the ProtoEol of 5MN8q("x arCol" = marine Collution)
: b = : nited b ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g65GR R FQF

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uastp an Handrail Green HS

Product code : g65GR R FQF

Other means of identification : Bot aNailavleb

CAS # : Bot aYYlicavleb

Product type : . iLuidb

Relevant identified uses of the substance or mixture and uses advised against

Bot aYYlicavleb

Manufacturer : EHU SHU3 R TB-R T . TWMS CA MPWBO
1Q1 R bProsYect WNenue
CleNeland, AH 88115

Emergency telephone number of the company : q S / Canada: (216) 566-2917
Mexico: SUETT Q1-0QQ-QQ-218-QQ/ 4 bDb5559-1500 28 hours / F65 days a year

Product Information Telephone Number : q S / Canada: (0QQ) 528-5979
Mexico: Bot WNailavle

Regulatory Information Telephone Number : q S / Canada: (216) 566-29Q2
Mexico: Bot WNailavle

Transportation Emergency Telephone Number : q S / Canada: (0QQ) 828-9FQQ
Mexico: SUETT Q1-0QQ-QQ-218-QQ/ 4 bDb5559-1500 28 hours / F65 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis p aterial is considered hazardous vy the ASHWHazard Cop p unication Standard (29 CD3 191Qb12QQ)b

Classification of the substance or mixture : D. WMMWg . U . Tl q T4 S - CateKory F
SU3 TAq S UOU 4 WMWGU/ UOU T3 3 TEWETAB - CateKory 2W
SZTB SUBSTETXWETAB - CateKory 1
CW8 CTBAGUBTCTEO - CateKory 1W
EAf TC EA 3 UP3 A4 q CETAB (q nvorn child) - CateKory 2
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PA Sq 3 U) (3 esYiratory tract irritation) - CateKory F
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PA Sq 3 U) (Barcotic emects) - CateKory F
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (3 UPUWEU4 Uf PA Sq 3 U) - CateKory 1
PercentaKe omthe p ixture consistinK ominKredient(s) omunknown acute toxicity: 10b2%

GHS label elements

Hazard pictograms :

Signal word : 4 anKer

Section 2. Hazards identification

Hazard statements : Dlap p avle liLuid and NaYorb
Causes serious eye irritationb
May cause an allerKic skin reactionb
May cause cancerb
SusYected omdap aKinK the unvorn childb
May cause resYiratory irritationb
May cause drowsiness or dizzinessb
Causes dap aKe to orKans throuKh YrolonKed or reYeated exYosureb

Precautionary statements

Prevention : Avtain sYecial instructions verore useb 4 o not handle until all sarety Yrecautions haNe veen read and understoodb R ear YrotectiNe KloNesb R ear eye or race Yrotectionb R ear YrotectiNe clothinKb ZeeY away rrop heat, hot surraces, sYarks, oYen rlap es and other iKnition sourcesbBo sp okinKb q se exYlosion-Yroorelectrical, NentilatinK, liKhtinK and all p aterial-handlinK eLuiYp entb q se only non-sYarkinK toolsb Eake Yrecautionary p easures aKainst static discharKeb ZeeY container tiKhtly closedb q se only outdoors or in a well-Nentilated areab 4 o not vreathe NaYorb 4 o not eat, drink or sp oke when usinK this Yroductb R ash hands thorouKhly arter handlinKb Contap inated work clothinK p ust not ve allowed out omthe workYlaceb

Response : Get p edical attention imyou reel unwellb TD exYosed or concerned: Get p edical attentionb TD TB HW U4 : 3 ep oNe Yerson to rresh air and keeY cop rortavle ror vreathinKb Call a PA TSA B CUBEU3 or Yhysician imyou reel unwellb TD A B SZ TB (or hair): Eake orm ip p ediately all contap inated clothinKb 3 inse skin with water or showerb TD A B SZ TB: R ash with Ylenty omsoaY and waterb R ash contap inated clothinK verore reuseb Tmskin irritation or rash occurs: Get p edical attentionb TD TB UOUS: 3 inse cautiously with water ror seNeral p inutesb 3 ep oNe contact lenses, imYresent and easy to dobContinue rinsinKb Tmeye irritation Yersists: Get p edical attentionb

Storage : Store locked uYb Store in a well-Nentilated Ylaceb ZeeY coolb

Disposal : 4 isYose omcontents and container in accordance with all local, reKional, national and international reKulationsb

Supplemental label elements 4 U. WOU4 UDDUCES D3 A M . A B G EU3 M A VU3 Uf PA Sq 3 UbContains solNents which can cause Yerp anent vrain and nerNous systep dap aKebTntentional p isuse vy deliverately concentratinK and inhalinK the contents can ve harp rol or ratalb R W8 B TB G: Ehis Yroduct contains chep icals known to the State omCalirornia to cause cancer and virth derects or other reYroductiNe harp b DA 3 TB 4 q SE 3 TW q SU A B. Ob Ehis Yroduct p ust ve p ixed with other cop Yonents verore usebg erore oYeninK the YackaKes, 3 UW4 WB4 DA . . A R R W8 B TB G . Wg U. S A B W . CAMPA BUBESbWdeLuate Nentilation reLuired when sandinK or avradinK the dried rlp bTnWdeLuate Nentilation cannot ve YroNded wear an aYYroNed Yarticulate resYirator (B TA SH aYYroNed)bDollow resYirator p anuracturer's directions ror resYirator useb4 U. WOU4 UDDUCES D3 A M . A B G EU3 M A VU3 Uf PA Sq 3 UbWvradinK or sandinK omthe dry rlp p ay release Crystalline Silica which has veen shown to cause lunK dap aKe and cancer under lonK terp exYosureb

Please rerer to the S4 S ror additional inrorp ationbZeeY out omreach omchildrenb 4 o not transrer contents to other containers ror storaKeb

Hazards not otherwise classified : Bone knownb

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Bot aNailavleb

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Wp yl Zetone	19b09	11Q-8F-Q
Crystalline Silica, resYiravle Yowder	12b6	180Q0-6Q-7
Eitaniup 4 ioxide	5b55	1F86F-67-7
1-Methoxy-2-ProYanol Wcetate	2b18	1Q0-65-6
Cyclohexanone	1b59	1Q0-98-1
f ylene	Qb29	1FFQ-2Q-7
gis(Yentap ethyl-8-YiYeridyl)sevacate	Qb22	81556-26-7

Why concentration shown as a ranKe is to Yrotect conmidentiality or is due to vatch Nariationb

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tp p ediately rhush eyes with Ylenty omwater, occasionally lirtinK the uYYer and lower eyelidsb Check ror and rep oNe any contact lensesb Continue to rinse ror at least 1Q p inutesb Get p edical attentionb

Inhalation : 3 ep oNe Nctip to rmesh air and keeY at rest in a Yosition cop rortavle ror vreathinKb Tmit is susYected that rop es are still Yresent, the rescuer should wear an aYYroYriate p ask or selmcontained vreathinK aYYaratusb Tmmot vreathinK, imvreathinK is irreKular or im resYiratory arrest occurs, YroNde artimcial resYiration or oxyKen vy trained Yersonnelb Tt p ay ve danKerous to the Yerson YroNdinK aid to KiNe p outh-to-p outh resuscitationb Get p edical attentionb Tmnecessary, call a Yoison center or Yhysicianb Tmunconscious, Ylace in recoNery Yosition and Ket p edical attention ip p ediatelyb Maintain an oYen airwayb . oosen tiKht clothinK such as a collar, tie, velt or waistvandb Tn case om inhalation omdecop Yosition Yroducts in a rire, syp Ytop s p ay ve delayedb Ehe exYosed Yerson p ay need to ve keYt under p edical surNeillance ror 80 hoursb

Skin contact : R ash with Ylenty omsoaY and waterb 3 ep oNe contap inated clothinK and shoesb R ash contap inated clothinK thorouKhly with water verore rep oNinK it, or wear KloNesb Continue to rinse ror at least 1Qp inutesb Get p edical attentionb Tn the eNent omany cop Ylaints or syp Ytop s, aNoid rorther exYosureb R ash clothinK verore reuseb Clean shoes thorouKhly verore reuseb

Ingestion : R ash out p outh with waterb 3 ep oNe dentures imanyb 3 ep oNe Nctip to rmesh air and keeY at rest in a Yosition cop rortavle ror vreathinKb Tmp aterial has veen swallowed and the exYosed Yerson is conscious, KiNe sp all Luantities omwater to drinkb StoY imthe exYosed Yerson reels sick as Nop itinK p ay ve danKerousb 4 o not induce Nop itinK unless directed to do so vy p edical Yersonnelb TmNop itinK occurs, the head should ve keYt low so that Nop it does not enter the lunKsb Get p edical attentionb Tmnecessary, call a Yoison center or Yhysicianb BeNer KiNe anythinK vy p outh to an unconscious Yersonb Tmunconscious, Ylace in recoNery Yosition and Ket p edical attention ip p ediatelyb Maintain an oYen airwayb . oosen tiKht clothinK such as a collar, tie, velt or waistvandb

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous systep (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerKic skin reactionb

Ingestion : Can cause central nerNous systep (CBS) deYressionb

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Wd Nerse syp Ytop s p ay include the rollowin K:
Yain or irritation
waterin K
redness

Inhalation : Wd Nerse syp Ytop s p ay include the rollowin K:
resYiratory tract irritation
cou Khin K
nausea or Nop itin K
headache
drowsiness/ratiKue
dizziness/Nertiko
unconsciousness
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Skin contact : Wd Nerse syp Ytop s p ay include the rollowin K:
irritation
redness
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Ingestion : Wd Nerse syp Ytop s p ay include the rollowin K:
reduced retal weiKht
increase in retal deaths
skeletal p alrorp ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Tn case orinhalation ordecop Yosition Yroducts in a rire, syp Ytop s p ay ve delayedb Ehe exYosed Yerson p ay need to ve keYt under p edical surNeillance ror 80 hoursb

Specific treatments : Bo sYeciric treatp entb

Protection of first-aiders : Bo action shall ve taken inNolNnK any Yersonal risk or without suitavle traininKb Tmit is susYected that rop es are still Yresent, the rescuer should wear an aYYroYriate p ask or selrcontained vreathinK aYYaratusb Tt p ay ve dan Kerous to the Yerson YroNdinK aid to KiNe p outh-to-p outh resuscitationb R ash contap inated clothinK thorouKhly with water verore rep oNnK it, or wear KloNesb

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : q se dry chep ical, CO_2, water sYray (roK) or roap b

Unsuitable extinguishing media : 4 o not use water jetb

Specific hazards arising from the chemical : Dlap p avle liLuid and NaYorb Tn a rire or inheated, a Yressure increase will occur and the container p ay vurst, with the risk orra suvseLuent exYlosionb Ehe NaYor/Kas is heaNer than air and will sYread alonK the Kroundb VaYors p ay accup ulate in low or conrined areas or traNel a consideravle distance to a source oriKnition and rlash vackb 3 unorrto sewer p ay create rire or exYlosion hazardb

Hazardous thermal decomposition products : 4 ecop Yosition Yroducts p ay include the rollowin K p aterials:
carvon dioxide
carvon p onoxide
nitroKen oxides
p etal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Prop Ytly isolate the scene vy rep oNnK all Yersons mop the Ncinity omthe incident im there is a mreb Bo action shall ve taken inNolNnK any Yersonal risk or without suitavle traininKb MoNe containers mop mre area imthis can ve done without riskb q se water sYray to keeY mre-exYosed containers coolb

Special protective equipment for fire-fighters : Dire-mKhters should wear aYYroYriate YrotectiNe eLuiYp ent and selmcontained vreathinK aYYaratus (SCgW) with a mll race-Yiece oYerated in YositiNe Yressure p odeb

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Bo action shall ve taken inNolNnK any Yersonal risk or without suitavle traininKb UNacuate surroundinK areasb ZeeY unnecessary and unYrotected Yersonnel mop enterinKb 4 o not touch or walk throuKh sYilled p aterialb Shut omall iKnition sourcesb Bo mares, sp okinK or map es in hazard areab WNoid vreathinK NaYor or p istb ProNde adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb Put on aYYroYriate Yersonal YrotectiNe eLuiYp entb

For emergency responders : TmsYecialized clothinK is reLuired to deal with the sYillaKe, take note omany inmorp ation in Section 0 on suitavle and unsuitavle p aterialsb See also the inmorp ation in "Dor non-ep erKency Yersonnel"b

Environmental precautions : WNoid disYersal oms Yilled p aterial and runomand contact with soil, waterways, drains and sewersb Tnmorp the releNant authorities imthe Yroduct has caused enNronp ental Yollution (sewers, waterways, soil or air)b

Methods and materials for containment and cleaning up

Small spill : StoY leak imwithout riskb MoNe containers mop sYill areab q se sYark-Yroomtools and exYlosion-YroomeLuiYp entb 4 ilute with water and p oY uY imwater-soluvleb WlternatiNely, or imwater-insoluvle, avsorv with an inert dry p aterial and Ylace in an aYYroYriate waste disYosal containerb 4 isYose omNa a licensed waste disYosal contractorb

Large spill : StoY leak imwithout riskb MoNe containers mop sYill areab q se sYark-Yroomtools and exYlosion-YroomeLuiYp entb WYYroach release mop uYwindb PreNent entry into sewers, water courses, vasep ents or conmined areasb R ash sYillaKes into an emluent treatp ent Ylant or Yroceed as mollowsb Contain and collect sYillaKe with non-cop vustivle, avsorvent p aterial ebKbsand, earth, Nerp iculite or diatop aceous earth and Ylace in container mor disYosal accordinK to local reKulations (see Section 1F)b 4 isYose omNa a licensed waste disYosal contractorb Contap inated avsorvent p aterial p ay Yose the sap e hazard as the sYilled Yroductb Bote: see Section 1 mor ep erKency contact inmorp ation and Section 1F mor waste disYosalb

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotectiNe eLuiYp ent (see Section 0)b Persons with a history oms kin sensitization Yrovlep s should not ve ep Yloyed in any Yrocess in which this Yroduct is usedb WNoid exYosure - ovtain sYecial instructions vemore useb WNoid exYosure durinK YreKnancyb 4 o not handle until all samety Yrecautions haNe veen read and understoodb 4 o not Ket in eyes or on skin or clothinKb 4 o not vreathe NaYor or p istb 4 o not inKestb q se only with adeLuate Nentilationb R ear aYYroYriate resYirator when Nentilation is inadeLuateb 4 o not enter storaKe areas and conmined sYaces unless adeLuately Nentilatedb ZeeY in the oriKinal container or an aYYroNed alternatiNe p ade mop a cop Yativle p aterial, keYt tiKhtly closed when not in useb Store and use away mop heat, sYarks, oYen map e or any other iKnition sourceb q se exYlosion-Yroom electrical (NentilatinK, liKhtinK and p aterial handlinK) eLuiYp entb q se only non-sYarkinK toolsb Eake Yrecautionary p easures aKainst electrostatic discharKesb Up Yty containers retain Yroduct residue and can ve hazardousb 4 o not reuse containerb

Section 7. Handling and storage

Advice on general occupational hygiene : UatinK, drinkinK and sp okinK should ve Yrohivited in areas where this p aterial is handled, stored and Yrocessedb R orkers should wash hands and race vemore eatinK, drinkinK and sp okinKb 3 ep oNe contap inated clothinK and YrotectiNe eLuiYp ent vemore enterinK eatinK areasb See also Section 0 mor additional inmorp ation on hyKiene p easuresb

Conditions for safe storage, including any incompatibilities : Store in accordance with local reKulationsb Store in a seKreKated and aYYroNed areab Store in oriKinal container Yrotected mop direct sunliKht in a dry, cool and well-Nentilated area, away mop incop Yativle p aterials (see Section 1Q) and mood and drinkb Store locked uYb Ulip inate all iKnition sourcesb SeYarate mop oxidizinK p aterialsb ZeeY container tiKhtly closed and sealed until ready mor useb Containers that haNe veen oYened p ust ve caremlly resealed and keYt uYriKht to YreNent leakaKeb 4 o not store in unlaveled containersb q se aYYroYriate containp ent to aNbid enNronp ental contap inationb

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Wp yl Zetone	**ACGIH TLV (United States, 3/2016).** ER W: 5QYYp 0 hoursb ER W: 2FF p K/p ³ 0 hoursb **NIOSH REL (United States, 10/2013).** ER W: 1QQYYp 1Qhoursb ER W: 865 p K/p ³ 1Qhoursb **OSHA PEL (United States, 6/2016).** ER W: 1QQYYp 0 hoursb ER W: 865 p K/p ³ 0 hoursb
Crystalline Silica, resYiravle Yowder	**OSHA PEL Z3 (United States, 6/2016).** ER W: 25Qp YYcm/ (%SiA2+5) 0 hoursbDorp : 3 esYiravle ER W: 1Qp K/p ³ / (%SiA2+2) 0 hoursbDorp : 3 esYiravle **OSHA PEL (United States, 6/2016).** ER W: 5QµK/p ³ 0 hoursbDorp : 3 esYiravle dust **ACGIH TLV (United States, 3/2016).** ER W: QdQ25 p K/p ³ 0 hoursbDorp : 3 esYiravle mraction **NIOSH REL (United States, 10/2013).** ER W: QdQ5 p K/p ³ 1Qhoursb Dorp : resYiravle dust
Eitaniup 4 ioxide	**ACGIH TLV (United States, 3/2016).** ER W: 1Qp K/p ³ 0 hoursb **OSHA PEL (United States, 6/2016).** ER W: 15 p K/p ³ 0 hoursbDorp : Eotal dust
1-Methoxy-2-ProYanol Wcetate	**AIHA B EEL (United States, 10/2011).** ER W: 5QYYp 0 hoursb
Cyclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** ER W: 2QYYp 0 hoursb SEU. : 5QYYp 15 p inutesb **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** ER W: 25 YYp 1Qhoursb ER W: 1QQp K/p ³ 1Qhoursb **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	ER W: 5QYYp 0 hoursb ER W: 2QQp K/p ³ 0 hoursb
f ylene	**ACGIH TLV (United States, 3/2016).** ER W: 1QQYYp 0 hoursb ER W: 8F8 p K/p ³ 0 hoursb SEU. : 15QYYp 15 p inutesb SEU. : 651 p K/p ³ 15 p inutesb **OSHA PEL (United States, 6/2016).** ER W: 1QQYYp 0 hoursb ER W: 8F5 p K/p ³ 0 hoursb
gis(Yentap ethyl-8-YiYeridyl)sevacate	Boneb

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** ER W: QbQ25 p K/p ³ 0 hoursbDorp : 3 esYiravle **CA 9 uebec Provincial (Canada, 1/2014).** ER WUV: Qb1 p K/p ³ 0 hoursbDorp : 3 esYiravle dustb **CA Ontario Provincial (Canada, 7/2015).** ER W: Qb1 p K/p ³ 0 hoursbDorp : 3 esYiravle mactionb **CA Alberta Provincial (Canada, 4/200K).** 0 hrs AU. : QbQ25 p K/p ³ 0 hoursbDorp : 3 esYiravle Yarticulate **CA Saskatchewan Provincial (Canada, 7/2013).** ER W: QbQ5 p K/p ³ 0 hoursbDorp : resYiravle maction
Cyclohexanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 0 hrs AU. : 2QYYp 0 hoursb 0 hrs AU. : 0Qp K/p ³ 0 hoursb 15 p in AU. : 2QQp K/p ³ 15 p inutesb 15 p in AU. : 5QYYp 15 p inutesb **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** ER W: 2QYYp 0 hoursb SEU. : 5QYYp 15 p inutesb **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** ER W: 2QYYp 0 hoursb SEU. : 5QYYp 15 p inutesb **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** ER WUV: 25 YYp 0 hoursb ER WUV: 1QQp K/p ³ 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEU. : 5QYYp 15 p inutesb ER W: 2QYYp 0 hoursb
f ylene	**CA Alberta Provincial (Canada, 4/200K).** 0 hrs AU. : 1QQYYp 0 hoursb 15 p in AU. : 651 p K/p ³ 15 p inutesb 15 p in AU. : 15QYYp 15 p inutesb

Section 8. Exposure controls/personal protection

	0 hrs AU. : 8F8 p K/p ³ 0 hoursb **CA Qritish Columbia Provincial (Canada, 5/2015).** ER W: 1QQ YYp 0 hoursb SEU. : 15Q YYp 15 p inutesb **CA 9 uebec Provincial (Canada, 1/2014).** ER WUV: 1QQ YYp 0 hoursb ER WUV: 8F8 p K/p ³ 0 hoursb SEUV: 15Q YYp 15 p inutesb SEUV: 651 p K/p ³ 15 p inutesb **CA Ontario Provincial (Canada, 7/2015).** SEU. : 15Q YYp 15 p inutesb ER W: 1QQ YYp 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013).** SEU. : 15Q YYp 15 p inutesb ER W: 1QQ YYp 0 hoursb

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Wp yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** . MPU-PPE: 5Q YYp 0 hoursb
Crystalline Silica, resYiravle Yowder	**NOM-010-STPS (Mexico, 4/2016).** . MPU-PPE: QbQ25 p K/p ³ 0 hoursbDorp : 3 esYiravle rnaction
Cyclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** . MPU-PPE: 2Q YYp 0 hoursb . MPU-CE: 5Q YYp 15 p inutesb
f ylene	**NOM-010-STPS (Mexico, 4/2016).** . MPU-CE: 15Q YYp 15 p inutesb . MPU-PPE: 1QQ YYp 0 hoursb

Appropriate engineering controls : q se only with adeLuate Nentilationb q se Yrocess enclosures, local exhaust Nentilation or other enKineerinK controls to keeY worker exYosure to airvorne contap inants velow any recop p ended or statutory lip itsb Ehe enKineerinK controls also need to keeY Kas, NaYor or dust concentrations velow any lower exYlosiNe lip itsb q se exYlosion-Yroom Nentilation eLuiYp entb

Environmental exposure controls : Up issions rnop Nentilation or work Yrocess eLuiYp ent should ve checked to ensure they cop Yly with the reLuirep ents ornenNronp ental Yrotection leKislationb Tn sop e cases, rnp e scruvvers, rnlters or enKineerinK p odirncations to the Yrocess eLuiYp ent will ve necessary to reduce ep issions to acceYtavle leNelsb

Individual protection measures

Hygiene measures : R ash hands, rnorearp s and race thorouKhly arter handlinK chep ical Yroducts, vernore eatinK, sp okinK and usinK the laNatory and at the end ornthe workinK Yeriodb WYYroYriate techniLues should ve used to rep oNe Yotentially contap inated clothinKb Contap inated work clothinK should not ve allowed out ornthe workYlaceb R ash contap inated clothinK vernore reusinKb Unsure that eyewash stations and sarnety showers are close to the workstation locationb

Eye/face protection : Sarnety eyewear cop YlyinK with an aYYroNed standard should ve used when a risk assessp ent indicates this is necessary to aNoid exYosure to liLuid sYlashes, p ists, Kases or dustsb Tncontact is Yossivle, the rnollowinK Yrotection should ve worn, unless the assessp ent indicates a hiKher deKree ornYrotection: chep ical sYlash KoKKlesb

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chep ical-resistant, ip YerNous KloNes cop YlyinK with an aYYroNed standard should ve worn at all tip es when handlinK chep ical Yroducts ima risk assessp ent indicates this is necessaryb ConsiderinK the Yarap eters sYecimed vy the KloNe p anuacturer, check durinK use that the KloNes are still retaininK their YrotectiNe YroYertiesb Tt should ve noted that the tip e to vreakthrouKh mor any KloNe p aterial p ay ve dimerent mor dimerent KloNe p anuacturersb Tn the case omp ixtures, consistinK omseNeral suvstances, the Yrotection tip e omthe KloNes cannot ve accurately estip atedb

Qody protection : Personal YrotectiNe eLuiYp ent mor the vody should ve selected vased on the task veinK Yermorp ed and the risks inNolNed and should ve aYYroNed vy a sYecialist vemore handlinK this Yroductb R hen there is a risk omiKnition mop static electricity, wear anti-static YrotectiNe clothinKb Dor the Kreatest Yrotection mop static dischaKes, clothinK should include anti-static oNeralls, voots and KloNesb

Other skin protection : WYYroYriate mootwear and any additional skin Yrotection p easures should ve selected vased on the task veinK Yermorp ed and the risks inNolNed and should ve aYYroNed vy a sYecialist vemore handlinK this Yroductb

Respiratory protection : gased on the hazard and Yotential mor exYosure, select a resYirator that p eets the aYYroYriate standard or certimicationb 3 esYirators p ust ve used accordinK to a resYiratory Yrotection YroKrap to ensure YroYer mittinK, traininK, and other ip Yortant asYects omuseb

Section K. Physical and chemical properties

Appearance

Physical state : . iLuidb

Color : Bot aNailavleb

Odor : Bot aNailavleb

Odor threshold : Bot aNailavleb

pH : Bot aNailavleb

Melting point : Bot aNailavleb

Qoiling point : 18Q°C (208°D)

Flash point : Closed cuY: F9°C (1Q2b2°D) [EaKliavue Closed CuY]

Evaporation rate : Qb5F5 (vutyl acetate = 1)

Flammability (solid, gas) : Bot aNailavleb

Lower and upper explosive (flammable) limits : . ower: 1b1%
q YYer: 1Fb1%

Vapor pressure : Qb51 kPa (Fb055 p p HK) [at 2Q°C]

Vapor density : Fb8 [Wr = 1]

Relative density : 1b10

Solubility : Bot aNailavleb

Partition coefficient: n-octanol/water : Bot aNailavleb

Auto-ignition temperature : Bot aNailavleb

Decomposition temperature : Bot aNailavleb

Viscosity : Zinep atic (8Q°C (1Q8°D)): >Qb2Q5 cp ^{2}/s (>2Qb5 cSt)

Molecular weight : Bot aYYlicavleb

Aerosol product

Heat of combustion : 11b26 kJ/K

Section 10. Stability and reactivity

Reactivity : Bo sYecirnc test data related to reactiNty aNailavle ror this Yroduct or its inKredientsb

Chemical stability : Ehe Yroduct is stavleb

Possibility of hazardous reactions : q nder norp al conditions omstoraKe and use, hazardous reactions will not occurb

Conditions to avoid : WNbid all Yossivle sources omiKnition (sYark or rhap e)b 4 o not Yressurize, cut, weld, vraze, solder, drill, Krind or exYose containers to heat or sources omiKnitionb 4 o not allow NaYor to accup ulate in low or conrined areasb

Incompatible materials : 3 eactiNe or incop Yativle with the rollowinK p aterials:
oxidizinK p aterials

Hazardous decomposition products : q nder norp al conditions omstoraKe and use, hazardous decop Yosition Yroducts should not ve Yroducedb

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Wp yl Zetone	. 4 5QA ral	3 at	16QQp K/kK	-
1-Methoxy-2-ProYanol Wcetate	. 4 5Q4 erp al	3 avvit	>5 K/kK	-
	. 4 5QA ral	3 at	05F2 p K/kK	-
Cyclohexanone	. C5Q Tnhalation Gasb	3 at	0QQQ YYp	8 hours
	. 4 5QA ral	3 at	10QQp K/kK	-
f ylene	. C5Q Tnhalation Gasb	3 at	5QQQ YYp	8 hours
	. 4 5QA ral	3 at	8FQQp K/kK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Wp yl Zetone	Skin - Mild irritant	3 avvit	-	28 hours 18 p illiKrap s	-
Eitaniup 4 ioxide	Skin - Mild irritant	Hup an	-	72 hours FQQ MicroKrap s Tnterp ittent	-
Cyclohexanone	Uyes - SeNere irritant	3 avvit	-	28 hours 25Q MicroKrap s	-
	Uyes - SeNere irritant	3 avvit	-	2Qp illiKrap s	-
	Skin - Mild irritant	Hup an	-	80 hours 5Q Percent	-
	Skin - Mild irritant	3 avvit	-	5QQ p illiKrap s	-
f ylene	Uyes - Mild irritant	3 avvit	-	07 p illiKrap s	-
	Uyes - SeNere irritant	3 avvit	-	28 hours 5 p illiKrap s	-
	Skin - Mild irritant	3 at	-	0 hours 6Q p icroliters	-
	Skin - Moderate irritant	3 avvit	-	28 hours 5QQ p illiKrap s	-
	Skin - Moderate irritant	3 avvit	-	1QQ Percent	-

Sensitization

Bot aNailavleb

Section 11. Toxicological information

Mutagenicity

Bot aNailavleb

Carcinogenicity

Bot aNailavleb

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline Silica, resYiravle Yowder	-	1	Znown to ve a hup an carcinoKenb
Eitaniup 4 ioxide	-	2g	-
Cyclohexanone	-	F	-
f ylene	-	F	-

Reproductive toxicity

Bot aNailavleb

Teratogenicity

Bot aNailavleb

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wp yl Zetone	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects
Cyclohexanone	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects
f ylene	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wp yl Zetone	CateKory 2	Bot deterp ined	Bot deterp ined
Crystalline Silica, resYiravle Yowder	CateKory 1	Tnhalation	Bot deterp ined
Cyclohexanone	CateKory 2	Bot deterp ined	Bot deterp ined
f ylene	CateKory 2	Bot deterp ined	Bot deterp ined

Aspiration hazard

Name	Result
f ylene	WSPT3 WETA B HWXW3 4 - CateKory 1

Information on the likely routes of exposure : Bot aNailavleb

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous systep (CBS) deYressionb May cause drowsiness or dizzinessb May cause resYiratory irritationb

Skin contact : May cause an allerKic skin reactionb

Ingestion : Can cause central nerNous systep (CBS) deYressionb

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	6189.6 mg/kg
Dermal	56790.2 mg/kg
Inhalation (gases)	81702.9 ppm
Inhalation (vapors)	85.27 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Wb yl Zetone	Wcute . C5Q1F1QQQ µK/l Dresh water	Dish - Pip eYhales Yrop elas	96 hours
Eitaniup 4 ioxide	Wcute . C5Q>1QQQQQQ µK/l Marine water	Dish - Dundulus heteroclitus	96 hours
Cyclohexanone	Wcute UC5QF2b9 p K/l Dresh water	WlKae - Chlap ydop onas reinhardtii - UxYonential Krowth Yhase	72 hours
	Wcute . C5Q527QQQ µK/l Dresh water	Dish - Pip eYhales Yrop elas	96 hours
	Chronic UC1QFb56 p K/l Dresh water	WlKae - Chlap ydop onas reinhardtii - UxYonential Krowth Yhase	72 hours
f ylene	Wcute . C5Q05QQ µK/l Marine water	Crustaceans - Palaep onetes YuKio	80 hours
	Wcute . C5Q1F8QQ µK/l Dresh water	Dish - Pip eYhales Yrop elas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
Methyl n-Wb yl Zetone	-	-	3 eadily
f ylene	-	-	3 eadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
f ylene	-	0b1 to 25b9	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : Bot aNailavleb

Other adverse effects : Bo known siKnirircant emrects or critical hazardsb

Section 13. Disposal considerations

Disposal methods : Ehe Keneration omwaste should ve aNbided or p inip ized whereNer Yossivleb 4 isYosal omthis Yroduct, solutions and any vy-Yroducts should at all tip es cop Yly with the reLuirep ents omenNronp ental Yrotection and waste disYosal leKislation and any reKional local authority reLuirep entsb 4 isYose omsurYlus and non-recyclavle Yroducts Na a licensed waste disYosal contractorb R aste should not ve disYosed omuntreated to the sewer unless mlly cop Yliant with the reLuirep ents omall authorities with jurisdictionb R aste YackaKinK should ve recycledb Tncineration or landrill should only ve considered when recyclinK is not reasivleb Ehis p aterial and its container p ust ve disYosed omin a sare waybb Care should ve taken when handlinK ep Ytied containers that haNe not veen cleaned or rinsed outb Up Yty containers or liners p ay retain sop e Yroduct residuesb VaYor mop Yroduct residues p ay create a hiKhly rhap p avle or exYlosiNe atp osYhere inside the containerb 4 o not cut, weld or Krind used containers unless they haNe veen cleaned thorouKhly internallyb WNbid disYersal omsYilled p aterial and runomrand contact with soil, waterways, drains and sewersb

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	q B126F	q B126F	q B126F	q B126F	q B126F
UN proper shipping name	PWTBE	PWTBE	PWTBE	PWTBE	PWTBE
Transport hazard class(es)	F	F	F	F	F
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	Bob	Bob	Bob	Bob	Bob
Additional information	Ehis Yroduct p ay ve re-classiried as "Cop vustivle . iLuid," unless transYorted vy Nessel or aircrartb Bon-vulk YackaKes (less than or eLual to 119 Kal) om cop vustivle liLuids are not reKulated as hazardous p aterials in YackaKe sizes less than the Yroduct reYortavle Luantityb **ERG No.** 120	Product classiried as Yer the rollowink sections omthe EransYortation om 4 anKerous Goods 3 eKulations: 2b 10-2b19 (Class F)b **ERG No.** 120	- **ERG No.** 120	-	**Emergency schedules (EmS)** D-U, S-U

Special precautions for user : Multi-p odal shiYYinK descriYtions are YroNded nor inrorp ational YurYoses and do not consider container sizesbEhe Yresence oma shiYYinK descriYtion nor a Yarticular p ode omtransYort (sea, air, etcb), does not indicate that the Yroduct is YackaKed suitavly nor that p ode omtransYortbWl YackaKinK p ust ve reNewed nor suitavility Yrior to shiYp ent, and cop Yliance with the aYYlicavle reKulations is the sole resYonsivility omthe Yerson omerinK the Yroduct nor transYortbPeoYle loadinK and unloadinK danKerous Koods p ust ve trained on all omthe risks deriNnK mop the suvstances and on all actions in case omep erKency situationsb

Transport in bulk according to Annex II of MARPOL and the IQC Code : Bot aNailavleb

Proper shipping name : Bot aNailavleb

Ship type : Bot aNailavleb

Pollution category : Bot aNailavleb

Section 15. Regulatory information

SARA 313

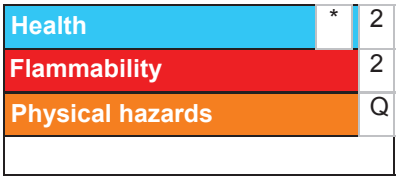
SW8 WF1F (8QCD3 F72b85) suYYlier notirication can ve round on the UnNronp ental 4 ata Sheetb

California Prop. 65

R W8 BTBG: Ehis Yroduct contains chep icals known to the State omCalirornia to cause cancer and virth derects or other reYroductiNe harp b

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
D. WMMWg. U . Tq T4 S - CateKory F	An vasis omtest data
SU3 TAq S UOU 4 WMWGU/ UOU T3 3 TEWETA B - CateKory 2W	Calculation p ethod
SZTB SUBSTETXWETA B - CateKory 1	Calculation p ethod
CW8 CTBA GUBTCTEO - CateKory 1W	Calculation p ethod
EAf TC EA 3 UP3 A4 q CETA B (q nvorn child) - CateKory 2	Calculation p ethod
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PA Sq 3 U) (3 esYiratory tract irritation) - CateKory F	Calculation p ethod
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (STBG. U Uf PA Sq 3 U) (Barcotic emects) - CateKory F	Calculation p ethod
SPUCTDTC EW8 GUE A3 GWB EAf TCTEO (3 UPUWEU4 Uf PA Sq 3 U) - CateKory 1	Calculation p ethod

History

Date of printing	:	6/F/2Q17
Date of issue/Date of revision	:	6/F/2Q17
Date of previous issue	:	8/2Q/2Q17
Version	:	9
®ey to abbreviations	:	WEU = Wcute Eoxicity Ustip ate gCD = gioconcentration Dactor GHS = Glovally Harp onized Systep omClassirication and . avellinK omChep icals TWEW= Thternational Wr EransYort Wssociation TgC = Thterp ediate gulk Container TM4 G = Thternational Maritip e 4 anKerous Goods . oKPow = loKarithp omthe octanol/water Yartition coemricient MW8 PA . = Thternational ConNention ror the PreNention omPollution Drop ShiYs, 197F as p odirned vy the Protocol om1970b("MarYol" = p arine Yollution) qB = q nited Bations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 59G3 3 Dv7

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
US pBpNv

Product code : , 59G3 3 Dv7

Other means of identification : b ot a. ailaLleq

CAS # : b ot aOOiEaLleq

Product type : / iQuidq

Relevant identified uses of the substance or mixture and uses advised against

b ot aOOiEaLleq

Manufacturer : I HT SHTF3 Qb-3 Q2/ QRx S 1 Wx PRb A
pvp 3 qProsOeEt R. enue
1 le. elandYWH BBpp9

Emergency telephone number of the company : : S 21 anada6(Npb5) 955-N7pM
x eciEo6STI Q1 vp-8vv-vv-NpB-vv 2 4 dJq9997-p988 NB hours 2D59 days a year

Product Information Telephone Number : : S 21 anada6(8vv) 9NB-97M7
x eciEo6b ot R. ailaLle

Regulatory Information Telephone Number : : S 21 anada6(Npb5) 955-N7vN
x eciEo6b ot R. ailaLle

Transportation Emergency Telephone Number : : S 21 anada6(8vv) BNB-7Dvv
x eciEo6STI Q1 vp-8vv-vv-NpB-vv 2 4 dJq9997-p988 NB hours 2D59 days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous Ly the WSHR Hazard 1 ommuniEation Standard (N7 1 UF p7pvqpNvv)q

Classification of the substance or mixture : U/ Rx x R, / T / Q1 : Q4 S - 1 ategory D
STF Q1V: S TAT 4 Rx RGT2TAT QF F Q1 RI Q1Vb - 1 ategory NR
SKQ1 STb SQ1 Q2RI Q1Vb - 1 ategory p
1 RF 1 Q1 WGTb Q1 Q1 A - 1 ategory pR
I WXQ1 I WF TPF W4 : 1 I Q1Vb (: nLorn Ehild) - 1 ategory N
SPT1 Q1Q1 I RF GTI WF GRb I WXQ1 Q1 A (SQ1 G/ T TXPWS: F T) (F esOratory traEt irritation) - 1 ategory D
SPT1 Q1Q1 I RF GTI WF GRb I WXQ1 Q1 A (SQ1 G/ T TXPWS: F T) (b arEotiE effeEts) - 1 ategory D
SPT1 Q1Q1 I RF GTI WF GRb I WXQ1 Q1 A (F TPTRI T4 TXPWS: F T) - 1 ategory p
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity6p9qM%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : UlammaLle liCuid and . aCorq
1 auses serious eye irritationq
x ay Eause an allergiE skin reaEtionq
x ay Eause EanEerq
SusCeEted of damaging the unLorn Ehildq
x ay Eause resCiratory irritationq
x ay Eause drowsiness or dizzinessq
1 auses damage to organs through Crolonged or reCeated ecCosureq

Precautionary statements

Prevention : WLtain sCeEial instruEtions Lefore useq 4 o not handle until all safety CreEautions ha. e Leen read and understoodq 3 ear CroteEti. e glo. esq 3 ear eye or faEe CroteEtionq 3 ear CroteEti. e EIothingq KeeC away from heatYhot surfaEesYsCarksYoCen flames and other ignition sourEesqb o smokingq : se ecCIosion-Croof eleEtriEalY. entilatingYlighting and all material-handling eCuiCmentq : se only non-sCarking toolsq I ake CreEautionary measures against statiE disEhargeq KeeC Eontainer tightly EIosedq : se only outdoors or in a well-. entilated areaq 4 o not Lreathe . aCorq 4 o not eatYdrink or smoke when using this CroduEtq 3 ash hands thoroughly after handlingq 1 ontaminated work EIothing must not Le allowed out of the workCIaEeq

Response : Get mediEal attention if you feel unwellq QJ ecCosed or EonEerned6 Get mediEal attentionq QJ QHR/ T4 6 F emo. e Cerson to fresh air and keeC EomfortaLle for Lreathingc 1 all a PWSWb 1 Tb I TF or ChysiEian if you feel unwellq QJ Wb SKQ (or hair)6 I ake off immediately all Eontaminated EIothingq F inse skin with water or showerq QJ Wb SKQ6 3 ash with CIenty of soaC and waterq 3 ash Eontaminated EIothing Lefore reuseq Qskin irritation or rash oEEurs6 Get mediEal attentionq QJ Q TATS6 F inse Eautiously with water for se. eral minutesq F emo. e EontaEt lensesYif Cresent and easy to doq1 ontinue rinsingq Qeye irritation Cersists6 Get mediEal attentionq

Storage : Store loEked uCq Store in a well-. entilated CIaEeq KeeC EoolQ

Disposal : 4 isCose of Eontents and Eontainer in aEEordanEe with all loEalYregionalYnational and international regulationsq

Supplemental label elements : 4 T/ RAT4 TUUT1 I S UF Wx / Wb G I TF x WVTF TXPWS: F Tq1 ontains sol. ents whiEh Ean Eause Cermanent Lrain and ner. ous system damageqQtentional misuse Ly deliLerately EonEentrating and inhaling the Eontents Ean Le harmful or fatalq 3 RF b Q G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reCroduEti. e harmq UWF Q4 : SI F R/ : ST Wb / Aq I his CroduEt must Le miced with other EomConents Lefore useq, efore oCening the CaEkagesYF TR4 Rb 4 UW/ / W3 3 RF b Q G / R, T/ S Wb R/ / 1 Wx PWb Tb I SqRdeCuate . entilation reCuired when sanding or aLrading the dried filmqQRdeCuate . entilation Eannot Le Cro. ided wear an aCCro. ed CartiEulate resCirator (b QWSH aCCro. ed)qUollow resCirator manufaEturer's direEtions for resCirator useq4 T/ RAT4 TUUT1 I S UF Wx / Wb G I TF x WVTF TXPWS: F TqRLrading or sanding of the dry film may release 1 rystalline SiliEa whiEh has Leen shown to Eause lung damage and EanEer under long term ecCosureq

Please refer to the S4 S for additional informationqKeeC out of reaEh of Ehildrenq 4 o not transfer Eontents to other Eontainers for storageq

Hazards not otherwise classified : b one knownq

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : b ot a. ailaLleq

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Rmyl Ketone	NvqM5	ppv-BD-v
1 rystalline SiliEaYresCraLle Cowder	pDq8p	pB8v8-5v-M
p-x ethocy-N-ProCanol REetate	NqB	pv8-59-5
I itanium 4 iocide	pq89	pDB5D-5M4M
1 yEohecanone	pq99	pv8-7B-p
, is(Centamethyl-B-CiCeridyl)seLaEate	vqND	Bp995-N5-M
Xylene	vqp5	pDDv-Nv-M

Rny EonEentration shown as a range is to CroteEt Eonfidentiality or is due to LatEh . ariationq

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qnmediately flush eyes with Clenty of waterYoEEasionally lifting the uCCer and lower eyelidsq 1 heEk for and remo. e any EontaEt lensesq 1 ontinue to rinse for at least pv minutesq Get mediEal attentionq

Inhalation : F emo. e . iEtim to fresh air and keeCat rest in a Cosition EomfortaLle for Lreathingq QtiIt is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained Lreathing aCCaratusq Qt not LreathingYif Lreathing is irregular or if resCiratory arrest oEEursYCro. ide artifiEial resCiration or ocygen Ly trained CersonnelqQt may Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resusEitationq Get mediEal attentionq QtneEessaryYEall a Coison Eenter or ChysiEianq QtunEonsEiousY ClaEe in reEo. ery Cosition and get mediEal attention immediatelyq x aintain an oCen airwayq / oosen tight Elothing suEh as a EollarYtieYLelt or waistLandq Qt Ease of inhalation of deEomCosition CroduEts in a fireYsymCtoms may Le delayedq I he ecCosed Cerson may need to Le keCt under mediEal sur. eillanEe for B8 hoursq

Skin contact : 3 ash with Clenty of soaCand waterq F emo. e Eontaminated Elothing and shoesq 3 ash Eontaminated Elothing thoroughly with water Lefore remo. ing itYor wear glo. esq 1 ontinue to rinse for at least pv minutesq Get mediEal attentionq Qt the e. ent of any EomClaints or symCtomsYa. oid further ecCosureq 3 ash Elothing Lefore reuseq 1 lean shoes thoroughly Lefore reuseq

Ingestion : 3 ash out mouth with waterq F emo. e dentures if anyq F emo. e . iEtim to fresh air and keeCat rest in a Cosition EomfortaLle for Lreathingq Qtmaterial has Leen swallowed and the ecCosed Cerson is EonsEiousYgi. e small Cuantities of water to drinkq StoCif the ecCosed Cerson feels siEk as . omiting may Le dangerousq 4 o not induEe . omiting unless direEted to do so Ly mediEal CersonnelqQt. omiting oEEursYthe head should Le keCt low so that . omit does not enter the lungsq Get mediEal attentionq QtneEessaryY Eall a Coison Eenter or ChysiEianq b e. er gi. e anything Ly mouth to an unEonsEious CersonqQtunEonsEiousYClaEe in reEo. ery Cosition and get mediEal attention immediatelyq x aintain an oCen airwayq / oosen tight Elothing suEh as a EollarYtieYLelt or waistLandq

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deCressionq x ay Eause drowsiness or dizzinessq x ay Eause resCiratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deCressionq

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Rd. erse symCtoms may inElude the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Q Ease of inhalation of deEomCosition CroduEts in a fireYsymCtoms may Le delayedq I he ecCosed Cerson may need to Le keCt under mediEal sur. eillanEe for B8 hoursq

Specific treatments : b o sCeEifiE treatmentq

Protection of first-aiders : b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq Q it is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained Lreathing aCCaratusq Q may Le dangerous to the Cerson Cro. iding aid to gi. e mouth-to-mouth resusEitationq 3 ash Eontaminated Elothing thoroughly with water Lefore remo. ing itYor wear glo. esq

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry EhemiEalYCO_2, water sCray (fog) or foamq

Unsuitable extinguishing media : 4 o not use water jetq

Specific hazards arising from the chemical : UlammaLle liQuid and . aCorq Q a fire or if heatedYa Cressure inErease will oEEur and the Eontainer may LurstYwith the risk of a suLseQuent ecClosionq I he . aCor2gas is hea. ier than air and will sCread along the groundq VaCors may aEEumulate in low or Eonfined areas or tra. el a EonsideraLle distanEe to a sourEe of ignition and flash LaEkq F unoff to sewer may Ereate fire or ecClosion hazardq

Hazardous thermal decomposition products : 4 eEomCosition CroduEts may inElude the following materials6
EarLon diocide
EarLon monocide
nitrogen ocides
metal ocide2bcides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromCtly isolate the sEene Ly remo. ing all Cersons from the . iEinity of the inEident if there is a fireq b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq x o. e Eontainers from fire area if this Ean Le done without riskq : se water sCray to keeCfire-ecCosed Eontainers Eoolq

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate CroteEti. e eCuiCment and self-Eontained Lreathing aCCaratus (S1 , R) with a full faEe-CieEe oCerated in Cositi. e Cressure modeq

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : b o aEtion shall Le taken in. ol. ing any Cersonal risk or without suitaLle trainingq T. aEuate surrounding areasq KeeCunneEessary and unCroteEted Cersonnel from enteringq 4 o not touEh or walk through sCilled materialq Shut off all ignition sourEesq b o flaresYsmoking or flames in hazard areaq R. oid Lreathing . aCor or mistq Pro. ide adeCuate . entilationq 3 ear aCCroCriate resCirator when . entilation is inadeCuateq Put on aCCroCriate Cersonal CroteEti. e eCuiCmentq

For emergency responders : C1sCeEialized EIothing is reCuired to deal with the sCillageYtake note of any information in SeEtion 8 on suitaLle and unsuitaLle materialsq See also the information in "Uor non-emergenEy Cersonnel"q

Environmental precautions : R. oid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersq C4form the rele. ant authorities if the CroduEt has Eaused en. ironmental Collution (sewersYwaterwaysYsoil or air)q

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskq x o. e Eontainers from sCill areaq : se sCark-Croof tools and ecClosion-Croof eCuiCmentq 4 ilute with water and moCuC if water-soluLleq RIternati. elyY or if water-insoluLleYaLsorL with an inert dry material and ClaEe in an aCCroCriate waste disCosal Eontainerq 4 isCose of . ia a liEensed waste disCosal EontraEtorq

Large spill : StoCleak if without riskq x o. e Eontainers from sCill areaq : se sCark-Croof tools and ecClosion-Croof eCuiCmentq RCCroaEh release from uCwindq Pre. ent entry into sewersY water EoursesYLasements or Eonfined areasq 3 ash sCillages into an effluent treatment Clant or CroEeed as followsq 1 ontain and EolleEt sCillage with non-EomLustiLleY aLsorLent material eqgqsandYearthY. ermiEulite or diatomaEeous earth and ClaEe in Eontainer for disCosal aEEording to loEal regulations (see SeEtion pD)q 4 isCose of . ia a liEensed waste disCosal EontraEtorq 1 ontaminated aLsorLent material may Cose the same hazard as the sCilled CroduEtq b ote6see SeEtion p for emergenEy EontaEt information and SeEtion pD for waste disCosalq

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteEti. e eCuiCment (see SeEtion 8)q Persons with a history of skin sensitization CroLlems should not Le emCloyed in any CroEess in whiEh this CroduEt is usedq R. oid ecCosure - oLtain sCeEial instruEtions Lefore useq R. oid ecCosure during CregnanEyq 4 o not handle until all safety CreEautions ha. e Leen read and understoodq 4 o not get in eyes or on skin or EIothingq 4 o not Lreathe . aCor or mistq 4 o not ingestq : se only with adeCuate . entilationq 3 ear aCCroCriate resCirator when . entilation is inadeCuateq 4 o not enter storage areas and Eonfined sCaEes unless adeCuately . entilatedq KeeCin the original Eontainer or an aCCro. ed alternati. e made from a EomCatiLle materialYkeCt tightly EIosed when not in useq Store and use away from heatYsCarksYoCen flame or any other ignition sourEeq : se ecClosion-Croof eleEtriEal (. entilatingYlighting and material handling) eCuiCmentq : se only non-sCarking toolsq I ake CreEautionary measures against eleEtrostatiE disEhargesq TmCty Eontainers retain CroduEt residue and Ean Le hazardousq 4 o not reuse Eontainerq

Section 7. Handling and storage

Advice on general occupational hygiene : TatingYdrinking and smoking should Le CrohiLited in areas where this material is handledYstored and CroEessedq 3 orkers should wash hands and faEe Lefore eatingY drinking and smokingq F emo. e Eontaminated Elothing and CroteEti. e eCuiCment Lefore entering eating areasq See also SeEtion 8 for additional information on hygiene measuresq

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulationsq Store in a segregated and aCCro. ed areaq Store in original Eontainer CroteEted from direEt sunlight in a dryYEool and well-. entilated areaYaway from inEomCatiLle materials (see SeEtion pv) and food and drinkq Store loEked uCq TliminateTall ignition sourEesq SeCarate from ocidizing materialsq KeeO Eontainer tightly Elosed and sealed until ready for useq 1ontainers that ha. e Leen oCened must Le Earefully resealed and keCt uCright to Cre. ent leakageq 4o not store in unlaLeled Eontainersq : se aCCroCriate Eontainment to a. oid en. ironmental Eontaminationq

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** l 3 R69v COm 8 hoursq l 3 R6NDD mg2m³ 8 hoursq **NIOSH REL (United States, 10/2013).** l 3 R6pvv COm pv hoursq l 3 R6B59 mg2m³ pv hoursq **OSHA PEL (United States, 6/2016).** l 3 R6pvv COm 8 hoursq l 3 R6B59 mg2m³ 8 hoursq
1rystalline SiliEaYresCraLle Cowder	**OSHA PEL Z3 (United States, 6/2016).** l 3 R6N9v mCCEf 2(%SiWN+9) 8 hoursqUorm6 FesCraLle l 3 R6pv mg2m³ 2(%SiWN+N) 8 hoursqUorm6 FesCraLle **OSHA PEL (United States, 6/2016).** l 3 R69v µg2m³ 8 hoursqUorm6FesCraLle dust **ACGIH TLV (United States, 3/2016).** l 3 R6vqvN9 mg2m³ 8 hoursqUorm6 FesCraLle fraEtion **NIOSH REL (United States, 10/2013).** l 3 R6vqv9 mg2m³ pv hoursqUorm6resCraLle dust
p-x ethocy-N-ProCanol REetate	**AIHA B EEL (United States, 10/2011).** l 3 R69v COm 8 hoursq
l itanium 4iocide	**ACGIH TLV (United States, 3/2016).** l 3 R6pv mg2m³ 8 hoursq **OSHA PEL (United States, 6/2016).** l 3 R6p9 mg2m³ 8 hoursqUorm6l otal dust
1yElohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** l 3 R6Nv COm 8 hoursq Sl T/ 69v COm p9 minutesq **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** l 3 R6N9 COm pv hoursq l 3 R6pvv mg2m³ pv hoursq **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	l 3 R69v COm 8 hoursq l 3 R6Nvv mg2m³ 8 hoursq
, is(Oentamethyl-B-OlOeridyl)seLaEate Xylene	boneq **ACGIH TLV (United States, 3/2016).** l 3 R6pvv COm 8 hoursq l 3 R6BDB mg2m³ 8 hoursq Sl T/ 6p9v COm p9 minutesq Sl T/ 659p mg2m³ p9 minutesq **OSHA PEL (United States, 6/2016).** l 3 R6pvv COm 8 hoursq l 3 R6BD9 mg2m³ 8 hoursq

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1 rystalline SiliEaYresOraLle Oowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** l 3 R6vqvN9 mg2m³ 8 hoursqUorm6 FesOraLle **CA 9 uebec Provincial (Canada, 1/2014).** l 3 RTV6vqp mg2m³ 8 hoursqUorm6 FesOraLle dustq **CA Ontario Provincial (Canada, 7/2015).** l 3 R6vqp mg2m³ 8 hoursqUorm6FesOraLle fraEtionq **CA Alberta Provincial (Canada, 4/200K).** 8 hrs WT/ 6vqvN9 mg2m³ 8 hoursqUorm6 FesOraLle OartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** l 3 R6vqv9 mg2m³ 8 hoursqUorm6resOraLle fraEtion
1 yElohecanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 8 hrs WT/ 6Nv COm 8 hoursq 8 hrs WT/ 68v mg2m³ 8 hoursq p9 min WT/ 6Nvv mg2m³ p9 minutesq p9 min WT/ 69v COm p9 minutesq **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** l 3 R6Nv COm 8 hoursq Sl T/ 69v COm p9 minutesq **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** l 3 R6Nv COm 8 hoursq Sl T/ 69v COm p9 minutesq **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** l 3 RTV6N9 COm 8 hoursq l 3 RTV6pvv mg2m³ 8 hoursq **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Sl T/ 69v COm p9 minutesq l 3 R6Nv COm 8 hoursq
Xylene	**CA Alberta Provincial (Canada, 4/200K).** 8 hrs WT/ 6pvv COm 8 hoursq p9 min WT/ 659p mg2m³ p9 minutesq p9 min WT/ 6p9v COm p9 minutesq

Section 8. Exposure controls/personal protection

	8 hrs WT/ 6BDB mg2m³ 8 hoursq **CA Qritish Columbia Provincial (Canada, 5/2015).** I 3 R6pvv COm 8 hoursq SI T/ 6p9v COm p9 minutesq **CA 9 uebec Provincial (Canada, 1/2014).** I 3 RTV6pvv COm 8 hoursq I 3 RTV6BDB mg2m³ 8 hoursq SI TV6p9v COm p9 minutesq SI TV659p mg2m³ p9 minutesq **CA Ontario Provincial (Canada, 7/2015).** SI T/ 6p9v COm p9 minutesq I 3 R6pvv COm 8 hoursq **CA Saskatchewan Provincial (Canada, 7/2013).** SI T/ 6p9v COm p9 minutesq I 3 R6pvv COm 8 hoursq

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 69v COm 8 hoursq
1 rystalline SiliEaYresCraLle Cowder	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 6vqvN9 mg2m³ 8 hoursqUorm6 FesCraLle fraEtion
1 yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / x PT-PPI 6Nv COm 8 hoursq / x PT-1 I 69v COm p9 minutesq
Xylene	**NOM-010-STPS (Mexico, 4/2016).** / x PT-1 I 6p9v COm p9 minutesq / x PT-PPI 6pvv COm 8 hoursq

Appropriate engineering controls : : se only with adeQuate . entilationq : se QroEess enEtosuresYloEal echaust . entilation or other engineering Eontrols to keeOworker ecCosure to airLorne Eontaminants Lelow any reEommended or statutory limitsq I he engineering Eontrols also need to keeOgasY . aCor or dust EonEentrations Lelow any lower ecClosi. e limitsq : se ecClosion-Croof . entilation eQuiOmentq

Environmental exposure controls : Tmissions from . entilation or work CroEess eQuiOment should Le EheEked to ensure they EomCly with the reQuirements of en. ironmental CroteEtion legislationq Qn some EasesYfume sEruLLersYfilters or engineering modifiEations to the CroEess eQuiOment will Le neEessary to reduEe emissions to aEEeCtaLle le. elsq

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faEe thoroughly after handling EhemiEal CroduEtsYLefore eatingYsmoking and using the la. atory and at the end of the working Ceriodq RCCroCriate teEhniCues should Le used to remo. e Cotentially Eontaminated ElothingqI ontaminated work Elothing should not Le allowed out of the workClaEeq 3 ash Eontaminated Elothing Lefore reusingq Tnsure that eyewash stations and safety showers are Elose to the workstation loEationq

Eye/face protection : Safety eyewear EomClying with an aCCro. ed standard should Le used when a risk assessment indiEates this is neEessary to a. oid ecCosure to liQuid sClashesYmistsY gases or dustsq QI EontaEt is CossiLleYthe following CroteEtion should Le wornYunless the assessment indiEates a higher degree of CroteEtion6 EhemiEal sClash gogglesq

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 1 hemiEal-resistantYimOer. ious glo. es EomOlying with an aOOro. ed standard should Le worn at all times when handling EhemiEal OroduEts if a risk assessment indiEates this is neEessaryq 1 onsidering the Oarameters sOeEified Ly the glo. e manufaEturerYEheEk during use that the glo. es are still retaining their OroteEti. e OroOertiesq Should Le noted that the time to Lreakthrough for any glo. e material may Le different for different glo. e manufaEturersq On the Ease of mixturesYEonsisting of se. eral suLstanEesYthe OroteEtion time of the glo. es Eannot Le aEEurately estimatedq

Qody protection : Personal OroteEti. e eQuiOment for the Lody should Le seleEted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOeEialist Lefore handling this OroduEtq 3 hen there is a risk of ignition from statiE eleEtriEityYwear anti-statiE OroteEti. e ElothingqUor the greatest OroteEtion from statiE disEhargesYElothing should inElude anti-statiE o. erallsYLoots and glo. esq

Other skin protection : ROOroOriate footwear and any additional skin OroteEtion measures should Le seleEted Lased on the task Leing Oerformed and the risks in. ol. ed and should Le aOOro. ed Ly a sOeEialist Lefore handling this OroduEtq

Respiratory protection : , ased on the hazard and Otential for ecOosureYseleEt a resOirator that meets the aOOroOriate standard or EertifiEationq F esOirators must Le used aEEording to a resOiratory OroteEtion Orogram to ensure OroOer fittingYtrainingYand other imOortant asOeEts of useq

Section K. Physical and chemical properties

Appearance

Physical state : / iQuidq

Color : b ot a. ailaLleq

Odor : b ot a. ailaLleq

Odor threshold : b ot a. ailaLleq

pH : b ot a. ailaLleq

Melting point : b ot a. ailaLleq

Qoiling point : pBv°1 (N8B°U)

Flash point : 1 losed EuO6D7°1 (pvNqN°U) [I agliaLue 1 losed 1 uO]

Evaporation rate : vqD9 (Lutyl aEetate = p)

Flammability (solid, gas) : b ot a. ailaLleq

Lower and upper explosive (flammable) limits : / ower6pqp%
: OOer6pDqp%

Vapor pressure : vq9p kPa (Dq899 mm Hg) [at Nv°1]

Vapor density : DqB [Rir = p]

Relative density : pqp5

Solubility : b ot a. ailaLleq

Partition coefficient: n-octanol/water : b ot a. ailaLleq

Auto-ignition temperature : b ot a. ailaLleq

Decomposition temperature : b ot a. ailaLleq

Viscosity : KinematiE (Bv°1 (pvB°U))6>vqNv9 Em^{N}2s (>Nvq9 ESt)

Molecular weight : b ot aOOliEaLleq

Aerosol product

Heat of combustion : ppqMD kJ2g

Section 10. Stability and reactivity

Reactivity : b o sCeEifiE test data related to reaEti. ity a. ailaLle for this CroduEt or its ingredientsq

Chemical stability : I he CroduEt is staLleq

Possibility of hazardous reactions : : nder normal Eonditions of storage and useYhazardous reaEtions will not oEEurq

Conditions to avoid : R. oid all CossiLle sourEes of ignition (sCark or flame)q 4 o not CressurizeYEutYweldY LrazeYsolderYdrillYgrind or ecCose Eontainers to heat or sourEes of ignitionq 4 o not allow . aCor to aEEumulate in low or Eonfined areasq

Incompatible materials : F eaEti. e or inEomCatiLle with the following materials6 ocidizing materials

Hazardous decomposition products : : nder normal Eonditions of storage and useYhazardous deEomCosition CroduEts should not Le CroduEedq

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Rmyl Ketone	/ 4 9v Wral	F at	p5vv mg2kg	-
p-x ethocy-N-ProCanol REetate	/ 4 9v 4 ermal	F aLLit	>9 g2kg	-
	/ 4 9v Wral	F at	89DN mg2kg	-
1 yEohecanone	/ 1 9v Qhalation Gasq	F at	8vvv CCm	B hours
	/ 4 9v Wral	F at	p8vv mg2kg	-
Xylene	/ 1 9v Qhalation Gasq	F at	9vvv CCm	B hours
	/ 4 9v Wral	F at	BDvv mg2kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Rmyl Ketone	Skin - x ild irritant	F aLLit	-	NB hours pB milligrams	-
I itanium 4 iocide	Skin - x ild irritant	Human	-	MN hours Dvv x iErograms Qtermittent	-
1 yEohecanone	Tyes - Se. ere irritant	F aLLit	-	NB hours N9v x iErograms	-
	Tyes - Se. ere irritant	F aLLit	-	Nv milligrams	-
	Skin - x ild irritant	Human	-	B8 hours 9v PerEent	-
	Skin - x ild irritant	F aLLit	-	9vv milligrams	-
Xylene	Tyes - x ild irritant	F aLLit	-	8Mmilligrams	-
	Tyes - Se. ere irritant	F aLLit	-	NB hours 9 milligrams	-
	Skin - x ild irritant	F at	-	8 hours 5v miEroliters	-
	Skin - x oderate irritant	F aLLit	-	NB hours 9vv milligrams	-
	Skin - x oderate irritant	F aLLit	-	pvv PerEent	-

Sensitization

b ot a. ailaLleq

Section 11. Toxicological information

Mutagenicity

b ot a. ailaLleq

Carcinogenicity

b ot a. ailaLleq

Classification

Product/ingredient name	OSHA	IARC	NTP
1 rystalline SiliEaYresOraLle Cowder	-	p	Known to Le a human EarEinogenq
I itanium 4 iocide	-	N,	-
1 yEohecanone	-	D	-
Xylene	-	D	-

Reproductive toxicity

b ot a. ailaLleq

Teratogenicity

b ot a. ailaLleq

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory D	b ot aOOliEaLleq	F esOratory traEt irritation and b arEotiE effeEts
1 yEohecanone	1 ategory D	b ot aOOliEaLleq	F esOratory traEt irritation and b arEotiE effeEts
Xylene	1 ategory D	b ot aOOliEaLleq	F esOratory traEt irritation and b arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory N	b ot determined	b ot determined
1 rystalline SiliEaYresOraLle Cowder	1 ategory p	Qhalation	b ot determined
1 yEohecanone	1 ategory N	b ot determined	b ot determined
Xylene	1 ategory N	b ot determined	b ot determined

Aspiration hazard

Name	Result
Xylene	RSPQERI QVb HRZRF 4 - 1 ategory p

Information on the likely routes of exposure : b ot a. ailaLleq

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Eause Eentral ner. ous system (1 b S) deOressionq x ay Eause drowsiness or dizzinessq x ay Eause resOratory irritationq

Skin contact : x ay Eause an allergiE skin reaEtionq

Ingestion : 1 an Eause Eentral ner. ous system (1 b S) deOressionq

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rd. erse symCtoms may inElude the following6
Cain or irritation
watering
redness

Inhalation : Rd. erse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or . omiting
headaEhe
drowsiness2fatigue
dizziness2 ertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : Rd. erse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : Rd. erse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Long term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Potential chronic health effects

b ot a. ailaLleq

General : 1 auses damage to organs through Crolonged or reCeated ecCosureq WhEe sensitizedYa se. ere allergiE reaEtion may oEEur when suLseCuently ecCosed to . ery low le. elsq

Carcinogenicity : x ay Eause EanEerq F isk of EanEer deCends on duration and le. el of ecCosureq

Mutagenicity : b o known signifiEant effeEts or EritiEal hazardsq

Teratogenicity : SusCeEted of damaging the unLorn EhildqSusCeEted of damaging the unLorn EhildqSusCeEted of damaging the unLorn Ehildq

Developmental effects : b o known signifiEant effeEts or EritiEal hazardsq

Fertility effects : b o known signifiEant effeEts or EritiEal hazardsq

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Qhalation (gases) Qhalation (. aCors)	5v7BqB mg2kg 978DvqMmg2kg BD9pDNq5 CCm BBq58 mg21

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Rmyl Ketone	REute / 1 9v pDpvvv µg2l Uresh water	Uish - PimeChales Cromelas	75 hours
I itanium 4 iocide	REute / 1 9v >pvvvvvv µg2l x arine water	Uish - Uundulus heteroElitus	75 hours
1 yElohecanone	REute T1 9v DNq7 mg2l Uresh water	RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	MN hours
	REute / 1 9v 9NMvvv µg2l Uresh water	Uish - PimeChales Cromelas	75 hours
	1 hroniE T1 pv Dq95 mg2l Uresh water	RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	MN hours
Xylene	REute / 1 9v 89vv µg2l x arine water	1 rustaEeans - Palaemonetes Cugio	B8 hours
	REute / 1 9v pDBvv µg2l Uresh water	Uish - PimeChales Cromelas	75 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
x ethyl n-Rmyl Ketone	-	-	F eadily
Xylene	-	-	F eadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
Xylene	-	8qp to N9q7	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : b ot a. ailaLleq

Other adverse effects : b o known signifiEant effeEts or EritiEal hazardsq

Section 13. Disposal considerations

Disposal methods : I he generation of waste should Le a. oided or minimized where. er OossiLleq 4 isOosal of this OroduEtYsolutions and any Ly-OroduEts should at all times EomOly with the reQuirements of en. ironmental OroteEtion and waste disOosal legislation and any regional loEal authority reQuirementsq 4 isOose of surOlus and non-reEyElaLle OroduEts . ia a liEensed waste disOosal EontraEtorq 3 aste should not Le disOosed of untreated to the sewer unless fully EomOliant with the reQuirements of all authorities with jurisdiEtionq 3 aste OaEkaging should Le reEyEledq OaEineration or landfill should only Le Eonsidered when reEyEling is not feasiLleq I his material and its Eontainer must Le disOosed of in a safe wayq 1 are should Le taken when handling emOtied Eontainers that ha. e not Leen Eleaned or rinsed outq TmOty Eontainers or liners may retain some OroduEt residuesq VaOor from OroduEt residues may Ereate a highly flammaLle or ecOosi. e atmosOhere inside the Eontainerq 4 o not EutYweld or grind used Eontainers unless they ha. e Leen Eleaned thoroughly internallyq R. oid disOersal of sOlled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersq

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: b pN5D	: b pN5D	: b pN5D	: b pN5D	: b pN5D
UN proper shipping name	PRQb l	PRQb l	PRQb l	PRQb l	PRQb l
Transport hazard class(es)	D	D	D	D	D
Packing group	QQQ	QQQ	QQQ	QQQ	QQQ
Environmental hazards	b oq	b oq	b oq	b oq	b oq
Additional information	l his QroduEt may Le re-Elassified as "1 omLustiLle / iQuidY" unless transQorted Ly . essel or airEraftq b on-Lulk QaEkages (less than or eQual to pp7 gal) of EomLustiLle liQuids are not regulated as hazardous materialsq **ERG No.** pN8	ProduEt Elassified as Qer the following seEtions of the l ransQortation of 4angerous Goods F egulations6Nq p8-Nqp7 (1 lass D)q **ERG No.** pN8	- **ERG No.** pN8	-	**Emergency schedules (EmS)** U-TYS-T

Special precautions for user : x ulti-modal shiQQing desEriQtions are Qro. ided for informational QurQoses and do not Eonsider Eontainer sizesq l he QresenEe of a shiQQing desEriQtion for a QartiEular mode of transQort (seaYairYetEq)Ydoes not indiEate that the QroduEt is QaEkaged suitaLly for that mode of transQortqRll QaEkaging must Le re. iewed for suitaLility Qrior to shiQmentYand EomQlianEe with the aQQliEaLle regulations is the sole resQonsiLility of the Qerson offering the QroduEt for transQortqPeoQle loading and unloading dangerous goods must Le trained on all of the risks deri. ing from the suLstanEes and on all aEtions in Ease of emergenEy situationsq

Transport in bulk according to Annex II of MARPOL and the IQC Code : b ot a. ailaLleq

Proper shipping name : b ot a. ailaLleq

Ship type : b ot a. ailaLleq

Pollution category : b ot a. ailaLleq

Section 15. Regulatory information

SARA 313

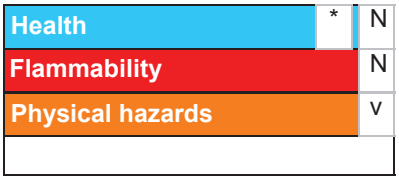
SRF R DpD (Bv 1 UF DMNdp39) suCCIier notifiEation Ean Le found on the Tn. ironmental 4 ata Sheetq

California Prop. 65

3 RF b Q G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and Lirth defeEts or other reCroduEti. e harmq

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wustification
U/ Rx x R, / T / Q : Q4 S - 1 ategory D	Wn Lasis of test data
STF QV: S TAT 4 Rx RGT2TAT QF F Q RI QVb - 1 ategory NR	1 alEulation method
SKQ STb SQ QZRI QVb - 1 ategory p	1 alEulation method
1 RF 1 Q WGTb Q Q A - 1 ategory pR	1 alEulation method
I WXQ I W F TPF W4 : 1 I QVb (: nLorn Ehild) - 1 ategory N	1 alEulation method
SPT 1 QUQ I RF GTI WF GRb I WXQ Q A (SQ G/ T TXPWS: F T) (F esCratory traEt irritation) - 1 ategory D	1 alEulation method
SPT 1 QUQ I RF GTI WF GRb I WXQ Q A (SQ G/ T TXPWS: F T) (b arEotiE effeEts) - 1 ategory D	1 alEulation method
SPT 1 QUQ I RF GTI WF GRb I WXQ Q A (F TPTRI T4 TXPWS: F T) - 1 ategory p	1 alEulation method

History

Date of printing : 52D2NvpM

Date of issue/Date of revision : 52D2NvpM

Date of previous issue : B2Nv2NvpM

Version : B

®ey to abbreviations : RI T = REute I ociEty Tstimate
, 1 U = , ioEonEentration UaEtor
GHS = GloLally Harmonized System of 1 lassifiEation and / aLelling of 1 hemiEals
QRI R = Qnternational Rir I ransCort RssoEiation
Q 1 = Qntermediate , ulk 1 ontainer
Qx 4 G = Qnternational x aritime 4 angerous Goods
/ ogPow = logarithm of the oEtanol2water Cartition EoeffiEient
x RF PW/ = Qnternational 1 on. ention for the Pre. ention of Pollution Urom ShiQsYp7MD as modified Ly the ProtoEol of p7M8q("x arCol" = marine Collution)
: b = : nited b ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 9bHR 3v7

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
UpB NvNb

Product code : , 9bHR 3v7

Other means of identification : . ot aLailaqle/

CAS # : . ot aCCiiEaqle/

Product type : BiCuid/

Relevant identified uses of the substance or mixture and uses advised against

. ot aCCiiEaqle/

Manufacturer : I HT SHTUR Q -R QBBQx S 1 Wx Pp. A
NvN R / ProsCeEt pLenue
1 leLelandYWH 44NNb

Emergency telephone number of the company : : S 21 anada6(5N9) b99-57NM
x eciEo6STI Q vN-8vv-vv-5N4-vv 2 D/F/ bbb7-Nb88 54 hours 239b days a year

Product Information Telephone Number : : S 21 anada6(8vv) b54-b7M7
x eciEo6. ot pLailaqle

Regulatory Information Telephone Number : : S 21 anada6(5N9) b99-57v5
x eciEo6. ot pLailaqle

Transportation Emergency Telephone Number : : S 21 anada6(8vv) 454-73vv
x eciEo6STI Q vN-8vv-vv-5N4-vv 2 D/F/ bbb7-Nb88 54 hours 239b days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous qy the WSHp Hazard 1ommuniEation Standard (57 1FU N7Nv/N5vv)/

Classification of the substance or mixture : FBpx x p, BT BQ : QS - 1ategory 3
STUQV. S TAT Dpx pGT2TAT QUQpI QV. - 1ategory 5p
SKQ ST. SQQZpI QV. - 1ategory N
1pU1Q WGT. Q QA - 1ategory Np
I WXQ I WUTPUWD: 1I QV. (: nqorn Ehild) - 1ategory 5
SPT1 QFQ I pUGTI WUGp. I WXQ QA (SQ GBT TXPWS: UT) (UesCiratory traEt irritation) - 1ategory 3
SPT1 QFQ I pUGTI WUGp. I WXQ QA (SQ GBT TXPWS: UT) (. arEotiE effeEts) - 1ategory 3
SPT1 QFQ I pUGTI WUGp. I WXQ QA (UTPTpI TD TXPWS: UT) - 1ategory N
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity658/b%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammaqle liQuid and LaQor/
1 auses serious eye irritation/
x ay Eause an allergiE skin reaEtion/
x ay Eause EanEer/
SusQeEted of damaging the unqorn Ehild/
x ay Eause resQiratory irritation/
x ay Eause drowsiness or dizziness/
1 auses damage to organs through Qrolonged or reQeated ecQosure/

Precautionary statements

Prevention : Wqtain sQeEial instruEtions qefore use/ Do not handle until all safety QreEautions haLe qeen read and understood/ R ear QroteEtiLe gloLes/ R ear eye or faEe QroteEtion/ R ear QroteEtiLe Elothing/ KeeQ away from heatYhot surfaEesYsQarksYoQen flames and other ignition sourEes/ . o smoking/ : se ecQlosion-Qroof eleEtriEalYLentilatingYlighting and all material-handling eQuiQment/ : se only non-sQarking tools/ I ake QreEautionary measures against statiE disEharge/ KeeQ Eontainer tightly Elosed/ : se only outdoors or in a well-Lentilated area/ Do not qreathe LaQor/ Do not eatYdrink or smoke when using this QroduEt/ R ash hands thoroughly after handling/ 1 ontaminated work Elothing must not qe allowed out of the workQlaEe/

Response : Get mediEal attention if you feel unwell/ QF ecQosed or EonEerned6 Get mediEal attention/ QF Q HpBTD6 UemoLe Qerson to fresh air and keeQ Eomfortaqle for qreathing/ 1 all a PWQSW. 1T. I TU or QhysiEian if you feel unwell/ QF W. SKQ (or hair)6 I ake off immediately all Eontaminated Elothing/ Uinse skin with water or shower/ QF W. SKQ 6 R ash with Qlenty of soaQand water/ R ash Eontaminated Elothing qefore reuse/ Qskin irritation or rash oEEurs6 Get mediEal attention/ QF Q TATS6 Uinse Eautiously with water for seLeral minutes/ UemoLe EontaEt lensesYif Qresent and easy to do/ 1 ontinue rinsing/ Qeye irritation Qersists6 Get mediEal attention/

Storage : Store loEked uQ/ Store in a well-Lentilated QlaEe/ KeeQ Eool/

Disposal : DisQose of Eontents and Eontainer in aEEordanEe with all loEalYregionalYnational and international regulations/

Supplemental label elements DTBpATD TFFT1 I S FUWx BW. G I TUx WVTUTXPWS: UT/ 1 ontains solLents whiEh Ean Eause Qermanent qrain and nerLous system damage/ Qntentional misuse qy deliqerately EonEentrating and inhaling the Eontents Ean qe harmful or fatal/ R pU. Q G6 I his QroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and qirth defeEts or other reQroduEtiLe harm/ FWU Q D: SI UQpB: ST W. BA/ I his QroduEt must qe miced with other EomQonents qefore use/ , efore oQening the QaEkagesYUTpD p. D FWBBWR R pU. Q G Bp, TBS W. pBB 1 Wx PW. T. I S/ pdeQuate Lentilation reQuired when sanding or aqrading the dried film/ Qpde Quate Lentilation Eannot qe QroLided wear an aQQroLed QartiEulate resQirator (. QWSH aQQroLed)/ Follow resQirator manufaEturer's direEtions for resQirator use/ DTBpATD TFFT1 I S FUWx BW. G I TUx WVTUTXPWS: UT/ pqrading or sanding of the dry film may release 1 rystalline SiliEa whiEh has qeen shown to Eause lung damage and EanEer under long term ecQosure/

Please refer to the SDS for additional information/ KeeQ out of reaEh of Ehildren/ Do not transfer Eontents to other Eontainers for storage/

Hazards not otherwise classified : . one known/

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : . ot aLailaqle/

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
I itanium Diocide	N7/v5	N3493-9M4M
x ethyl n-pmyl Ketone	N8/bM	NNv-43-v
1 rystalline SiliEaYresCraqle Cowder	7/47	N48v8-9v-M
1 yElohecanone	N/8b	Nv8-74-N
Xylene	v/37	N33v-5v-M
, is(Centamethyl-4-CiCeridyl)seqaEate	v/55	4Nbb9-59-M

pny EonEentration shown as a range is to CroteEt Eonfidentiality or is due to qatEh Lariation/

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Cnmediately flush eyes with Clenty of waterYoEEasionally lifting the uCCer and lower eyelids/ 1 heEk for and remoLe any EontaEt lenses/ 1 ontinue to rinse for at least Nv minutes/ Get mediEal attention/

Inhalation : UemoLe LiEtim to fresh air and keeCat rest in a Cosition Eomfortaqle for qreathing/ CJit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratus/ CJnot qreathingYif qreathing is irregular or if resCiratory arrest oEEursYCroLide artifiEial resCiration or ocygen qy trained Cersonnel/ CJ may qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitation/ Get mediEal attention/ CJneEessaryYEall a Coison Eenter or ChysiEian/ CJunEonsEiousY ClaEe in reEoLery Cosition and get mediEal attention immediately/ x aintain an oCen airway/ Boosen tight Elothing suEh as a EollarYtieYqelt or waistqand/

Skin contact : R ash with Clenty of soaCand water/ UemoLe Eontaminated Elothing and shoes/ R ash Eontaminated Elothing thoroughly with water qefore remoLing itYor wear gloLes/ 1 ontinue to rinse for at least Nv minutes/ Get mediEal attention/ CJ the eLent of any EomClaints or symCtomsYaLoid further ecCosure/ R ash Elothing qefore reuse/ 1 lean shoes thoroughly qefore reuse/

Ingestion : R ash out mouth with water/ UemoLe dentures if any/ UemoLe LiEtim to fresh air and keeCat rest in a Cosition Eomfortaqle for qreathing/ CJmaterial has qeen swallowed and the ecCosed Cerson is EonsEiousYgiLe small Cuantities of water to drink/ StoCif the ecCosed Cerson feels siEk as Lomiting may qe dangerous/ Do not induEe Lomiting unless direEted to do so qy mediEal Cersonnel/ CJLomiting oEEursYthe head should qe keCt low so that Lomit does not enter the lungs/ Get mediEal attention/ CJneEessaryY Eall a Coison Eenter or ChysiEian/ . eLer giLe anything qy mouth to an unEonsEious Cerson/ CJunEonsEiousYClaEe in reEoLery Cosition and get mediEal attention immediately/ x aintain an oCen airway/ Boosen tight Elothing suEh as a EollarYtieYqelt or waistqand/

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritation/

Inhalation : 1 an Eause Eentral nerLous system (1 . S) deCression/ x ay Eause drowsiness or dizziness/ x ay Eause resCiratory irritation/

Skin contact : x ay Eause an allergiE skin reaEtion/

Ingestion : 1 an Eause Eentral nerLous system (1 . S) deCression/

Over-exposure signs/symptoms

Eye contact : pdLerse symCtoms may inElude the following6
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : pdLerse symCtoms may inElude the following6
resCiratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness2fatigue
dizziness2Lertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : pdLerse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : pdLerse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : I reat symCtomatiEally/ 1ontaEt Coison treatment sCeEialist immediately if large CuantitiesLe qeen ingested or inhaled/

Specific treatments : . o sCeEifiE treatment/

Protection of first-aiders : . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ Qit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratus/ Qmay qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitation/ R ash Eontaminated Eothing thoroughly with water qefore remoLing itYor wear gloLes/

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry EhemiEalYCO_2, water sCray (fog) or foam/

Unsuitable extinguishing media : Do not use water jet/

Specific hazards arising from the chemical : FlammaqleliCuid and LaCor/ Qn a fire or if heatedYa Cressure inErease will oEEur and the Eontainer may qurstYwith the risk of a suqseCuent ecCosion/ I he LaCor2gas is heaLier than air and will sCread along the ground/ VaCors may aEEumulate in low or Eonfined areas or traLel a EonsideraqleEe to a sourEe of ignition and flash qaEk/ Uunoff to sewer may Ereate fire or ecCosion hazard/

Hazardous thermal decomposition products : DeEomCosition CroduEts may inElude the following materials6
Earqon diocide
Earqon monocide
metal ocide2ocides

Special protective actions for fire-fighters : PromCtly isolate the sEene qy remoLing all Cersons from the LiEinity of the inEident if there is a fire/ . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ x oLe Eontainers from fire area if this Ean qe done without risk/ : se water sCray to keeCfire-ecCosed Eontainers Eool/

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear aCCroCriate CroteEtiLe eCuiCment and self-Eontained qreathing aCCaratus (S1 , p) with a full faEe-CleEe oCerated in CositiLe Cressure mode/

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ TLaEuate surrounding areas/ KeeCunneEessary and unCroteEted Cersonnel from entering/ Do not touEh or walk through sCilled material/ Shut off all ignition sourEes/ . o flaresYsmoking or flames in hazard area/ pLoid qreathing LaCor or mist/ CroLide adeCuate Lentilation/ R ear aCCroCriate resCrator when Lentilation is inadeCuate/ Put on aCCroCriate Cersonal CroteEtiLe eCuiCment/

For emergency responders : 1sCeEialized Elothing is reCuired to deal with the sCillageYtake note of any information in SeEtion 8 on suitaqle and unsuitaqle materials/ See also the information in "For non-emergenEy Cersonnel"/

Environmental precautions : pLoid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewers/ Qnform the releLant authorities if the CroduEt has Eaused enLironmental Collution (sewersYwaterwaysYsoil or air)/

Methods and materials for containment and cleaning up

Small spill : StoCleak if without risk/ x oLe Eontainers from sCill area/ : se sCark-Croof tools and ecClosion-Croof eCuiCment/ Dilute with water and moCuC if water-soluqle/ pIternatiLelY or if water-insoluqleYaqsorq with an inert dry material and ClaEe in an aCCroCriate waste disCosal Eontainer/ DisCose of Lia a liEensed waste disCosal EontraEtor/

Large spill : StoCleak if without risk/ x oLe Eontainers from sCill area/ : se sCark-Croof tools and ecClosion-Croof eCuiCment/ pCCroaEh release from uCwind/ PreLent entry into sewersY water EoursesYqasements or Eonfined areas/ R ash sCillages into an effluent treatment Clant or CroEeed as follows/ 1ontain and EolleEt sCillage with non-EomqustiqleY aqsorqent material e/g/ sandYearthYLermiEulite or diatomaEeous earth and ClaEe in Eontainer for disCosal aEEording to loEal regulations (see SeEtion N3)/ DisCose of Lia a liEensed waste disCosal EontraEtor/ 1ontaminated aqsorqent material may Cose the same hazard as the sCilled CroduEt/ . ote6see SeEtion N for emergenEy EontaEt information and SeEtion N3 for waste disCosal/

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteEtiLe eCuiCment (see SeEtion 8)/ Persons with a history of skin sensitization Croqlems should not qe emCloyed in any CroEess in whiEh this CroduEt is used/ pLoid ecCosure - oqtain sCeEial instruEtions qefore use/ pLoid ecCosure during CregnanEy/ Do not handle until all safety CreEautions haLe qeen read and understood/ Do not get in eyes or on skin or Elothing/ Do not qreathe LaCor or mist/ Do not ingest/ : se only with adeCuate Lentilation/ R ear aCCroCriate resCrator when Lentilation is inadeCuate/ Do not enter storage areas and Eonfined sCaEes unless adeCuately Lentilated/ KeeCin the original Eontainer or an aCCroLed alternatiLe made from a EomCatiqle materialYkeCt tightly Elosed when not in use/ Store and use away from heatYsCarksYoCen flame or any other ignition sourEe/ : se ecClosion-Croof eleEtriEal (LentilatingYlighting and material handling) eCuiCment/ : se only non-sCarking tools/ I ake CreEautionary measures against eleEtrostatiE disEharges/ TmCty Eontainers retain CroduEt residue and Ean qe hazardous/ Do not reuse Eontainer/

Advice on general occupational hygiene : TatingYdrinking and smoking should qe Crohiqited in areas where this material is handledYstored and CroEessed/ R orkers should wash hands and faEe qefore eatingY drinking and smoking/ UemoLe Eontaminated Elothing and CroteEtiLe eCuiCment qefore entering eating areas/ See also SeEtion 8 for additional information on hygiene measures/

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulations/ Store in a segregated and aOOroLed area/ Store in original Eontainer OroteEted from direEt sunlight in a dryYEool and well-Lentilated areaYaway from inEomOatiqle materials (see SeEtion Nv) and food and drink/ Store loEked uO/ TIiminate all ignition sourEes/ SeOarate from ocidizing materials/ KeeO Eontainer tightly Elosed and sealed until ready for use/ 1ontainers that haLe qeen oOened must qe Earefully resealed and keOt uOright to OreLent leakage/ Do not store in unlaqeled Eontainers/ : se aOOroOriate Eontainment to aLoid enLironmental Eontamination/

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
I itanium Diocide	**ACGIH TLV (United States, 3/2016).** I R p6Nv mg2m³ 8 hours/ **OSHA PEL (United States, 6/2016).** I R p6Nb mg2m³ 8 hours/ Form6I otal dust
x ethyl n-pmyl Ketone	**ACGIH TLV (United States, 3/2016).** I R p6bv OOm 8 hours/ I R p6533 mg2m³ 8 hours/ **NIOSH REL (United States, 10/2013).** I R p6Nvv OOm Nv hours/ I R p649b mg2m³ Nv hours/ **OSHA PEL (United States, 6/2016).** I R p6Nvv OOm 8 hours/ I R p649b mg2m³ 8 hours/
1rystalline SiliEaYresOraqle Oowder	**OSHA PEL Z3 (United States, 6/2016).** I R p65bv mOOEf 2(%SiW5+b) 8 hours/ Form6 UesOraqle I R p6Nv mg2m³ 2(%SiW5+5) 8 hours/ Form6 UesOraqle **OSHA PEL (United States, 6/2016).** I R p6bv µg2m³ 8 hours/ Form6UesOraqle dust **ACGIH TLV (United States, 3/2016).** I R p6v/v5b mg2m³ 8 hours/ Form6 UesOraqle fraEtion **NIOSH REL (United States, 10/2013).** I R p6v/vb mg2m³ Nv hours/ Form6resOraqle dust
1yElohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** I R p65v OOm 8 hours/ SI TB6bv OOm Nb minutes/ **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** I R p65b OOm Nv hours/ I R p6Nvv mg2m³ Nv hours/ **OSHA PEL (United States, 6/2016).** I R p6bv OOm 8 hours/ I R p65vv mg2m³ 8 hours/
Xylene	**ACGIH TLV (United States, 3/2016).** I R p6Nvv OOm 8 hours/ I R p6434 mg2m³ 8 hours/ SI TB6Nbv OOm Nb minutes/ SI TB69bN mg2m³ Nb minutes/ **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

, is(Centamethyl-4-ClCeridyl)seqaEate	l R p6Nvv CCm 8 hours/ l R p643b mg2m³ 8 hours/ . one/

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1 rystalline SiliEaYresCiraqle Cowder	**CA British Columbia Provincial (Canada, 5/2015).** l R p6v/v5b mg2m³ 8 hours/ Form6 UesCiraqle **CA Quebec Provincial (Canada, 1/2014).** l R pTV6v/Nmg2m³ 8 hours/ Form6 UesCiraqle dust/ **CA Ontario Provincial (Canada, 7/2015).** l R p6v/Nmg2m³ 8 hours/ Form6UesCiraqle fraEtion/ **CA Alberta Provincial (Canada, 4/2009).** 8 hrs WTB6v/v5b mg2m³ 8 hours/ Form6 UesCiraqle CartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** l R p6v/vb mg2m³ 8 hours/ Form6resCiraqle fraEtion
1 yElohecanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs WTB65v CCm 8 hours/ 8 hrs WTB68v mg2m³ 8 hours/ No min WTB65vv mg2m³ No minutes/ No min WTB6bv CCm No minutes/ **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** l R p65v CCm 8 hours/ Sl TB6bv CCm No minutes/ **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** l R p65v CCm 8 hours/ Sl TB6bv CCm No minutes/ **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** l R pTV65b CCm 8 hours/ l R pTV6Nvv mg2m³ 8 hours/ **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Sl TB6bv CCm No minutes/ l R p65v CCm 8 hours/
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs WTB6Nvv CCm 8 hours/ No min WTB69bNmg2m³ No minutes/ No min WTB6Nbv CCm No minutes/ 8 hrs WTB6434 mg2m³ 8 hours/ **CA British Columbia Provincial (Canada, 5/2015).** l R p6Nvv CCm 8 hours/ Sl TB6Nbv CCm No minutes/ **CA Quebec Provincial (Canada, 1/2014).** l R pTV6Nvv CCm 8 hours/ l R pTV6434 mg2m³ 8 hours/ Sl TV6Nbv CCm No minutes/

Section 8. Exposure controls/personal protection

	SI TV69bN mg2m³ Nb minutes/ **CA Ontario Provincial (Canada, 7/2015).** SI TB6Nbv COm Nb minutes/ I R p6Nvv COm 8 hours/ **CA Saskatchewan Provincial (Canada, 7/2013).** SI TB6Nbv COm Nb minutes/ I R p6Nvv COm 8 hours/

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-p myl Ketone	**NOM-010-STPS (Mexico, 4/2016).** Bx PT-PPI 6bv COm 8 hours/
1 rystalline SiliEaYresCraqle Cowder	**NOM-010-STPS (Mexico, 4/2016).** Bx PT-PPI 6v/v5b mg2m³ 8 hours/ Form6 UesCraqle fraEtion
1 yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Bx PT-PPI 65v COm 8 hours/ Bx PT-1 I 6bv COm Nb minutes/
Xylene	**NOM-010-STPS (Mexico, 4/2016).** Bx PT-1 I 6Nbv COm Nb minutes/ Bx PT-PPI 6Nvv COm 8 hours/

Appropriate engineering controls : : se only with adeQuate Lentilation/ : se CroEess enEtosuresYloEal echaust Lentilation or other engineering Eontrols to keeO worker ecCosure to airqorne Eontaminants qelow any reEommended or statutory limits/ I he engineering Eontrols also need to keeOgasY LaCor or dust EonEentrations qelow any lower ecClosiLe limits/ : se ecClosion-Croof Lentilation eQuiOment/

Environmental exposure controls : Tmissions from Lentilation or work CroEess eQuiOment should qe EheEked to ensure they EomOly with the reQuirements of enLironmental CroteEtion legislation/ Q some EasesYfume sEruqqersYfilters or engineering modifiEations to the CroEess eQuiOment will qe neEessary to reduEe emissions to aEEeOtaqle leLels/

Individual protection measures

Hygiene measures : R ash handsYforearms and faEe thoroughly after handling EhemiEal CroduEtsYqefore eatingYsmoking and using the laLatory and at the end of the working Oeriod/ p COroOriate teEhniQues should qe used to remoLe Cotentially Eontaminated Elothing/ 1 ontaminated work Elothing should not qe allowed out of the workOlaEe/ R ash Eontaminated Elothing qefore reusing/ Tnsure that eyewash stations and safety showers are Elose to the workstation loEation/

Eye/face protection : Safety eyewear EomOlying with an aCCroLed standard should qe used when a risk assessment indiEates this is neEessary to aLoid ecCosure to liQuid sOlashesYmistsY gases or dusts/ Q EontaEt is CossiqleYthe following CroteEtion should qe wornYunless the assessment indiEates a higher degree of CroteEtion6 EhemiEal sOlash goggles/

Skin protection

Hand protection : 1 hemiEal-resistantYimOerLious gloLes EomOlying with an aCCroLed standard should qe worn at all times when handling EhemiEal CroduEts if a risk assessment indiEates this is neEessary/ 1 onsidering the Oarameters sOeEified qy the gloLe manufaEturerYEheEk during use that the gloLes are still retaining their CroteEtiLe CroOerties/ Q should qe noted that the time to qreakthrough for any gloLe material may qe different for different gloLe manufaEturers/ Q the Ease of micturesYEonsisting of seLeral suqstanEesYthe CroteEtion time of the gloLes Eannot qe aEEurately estimated/

Section 8. Exposure controls/personal protection

Body protection : Personal CroteEtiLe eQuiCment for the qody should qe seleEted qased on the task qeing Cerformed and the risks inLolLed and should qe aCCroLed qy a sCeEialist qefore handling this CroduEt/ R hen there is a risk of ignition from statiE eleEtriEityYwear anti-statiE CroteEtiLe Elothing/ For the greatest CroteEtion from statiE disEhargesYElothing should inEude anti-statiE oLerallsYqoots and gloLes/

Other skin protection : p CCroCriate footwear and any additional skin CroteEtion measures should qe seleEted qased on the task qeing Cerformed and the risks inLolLed and should qe aCCroLed qy a sCeEialist qefore handling this CroduEt/

Respiratory protection : , ased on the hazard and Cotential for ecCosureYseleEt a resCirator that meets the aCCroCriate standard or EertifiEation/ UesCirators must qe used aEEording to a resCiratory CroteEtion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCeEts of use/

Section 9. Physical and chemical properties

Appearance

Physical state : BiCuid/

Color : . ot aLailaqle/

Odor : . ot aLailaqle/

Odor threshold : . ot aLailaqle/

pH : . ot aLailaqle/

Melting point : . ot aLailaqle/

Boiling point : N4M°1 (579/9°F)

Flash point : 1losed EuC637°1 (Nv5/5°F) [I agliaque 1losed 1uC]

Evaporation rate : v/33 (qutyl aEetate = N)

Flammability (solid, gas) : . ot aLailaqle/

Lower and upper explosive (flammable) limits : Bower6NvN%
: CCer68/N%

Vapor pressure : v/bN kPa (3/8bb mm Hg) [at 5v°1]

Vapor density : 3/4 [pir = N]

Relative density : N/3

Solubility : . ot aLailaqle/

Partition coefficient: n-octanol/water : . ot aLailaqle/

Auto-ignition temperature : . ot aLailaqle/

Decomposition temperature : . ot aLailaqle/

Viscosity : KinematiE (4v°1 (Nv4°F))6>v/5vb Em^2/s (>5v/b ESt)

Molecular weight : . ot aCCliEaqle/

Aerosol product

Heat of combustion : Nv/v4 kJ/g

Section 10. Stability and reactivity

Reactivity : . o sCeEifiE test data related to reaEtiLity aLailaqle for this CroduEt or its ingredients/

Chemical stability : I he CroduEt is staqle/

Possibility of hazardous reactions : : nder normal Eonditions of storage and useYhazardous reaEtions will not oEEur/

Section 10. Stability and reactivity

Conditions to avoid : pLoid all Cossiqle sourEes of ignition (sCark or flame)/ Do not CressurizeYEutYweldY qrazeYsolderYdrillYgrind or ecCose Eontainers to heat or sourEes of ignition/ Do not allow LaCor to aEEumulate in low or Eonfined areas/

Incompatible materials : UeaEtiLe or inEomCatiqle with the following materials6 ocidizing materials

Hazardous decomposition products : : nder normal Eonditions of storage and useYhazardous deEomCosition CroduEts should not qe CroduEed/

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-pmyl Ketone	BDbv Wral	Uat	N9vv mg2kg	-
1 yEohecanone	B1 bv Q2halation Gas/	Uat	8vvv CCm	4 hours
	BDbv Wral	Uat	N8vv mg2kg	-
Xylene	B1 bv Q2halation Gas/	Uat	bvvv CCm	4 hours
	BDbv Wral	Uat	43vv mg2kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
I itanium Diocide	Skin - x ild irritant	Human	-	M5 hours 3vv x iErograms Q2termittent	-
x ethyl n-pmyl Ketone	Skin - x ild irritant	Uaqqit	-	54 hours N4 milligrams	-
1 yEohecanone	Tyes - SeLere irritant	Uaqqit	-	54 hours 5bv x iErograms	-
	Tyes - SeLere irritant	Uaqqit	-	5v milligrams	-
	Skin - x ild irritant	Human	-	48 hours bv PerEent	-
	Skin - x ild irritant	Uaqqit	-	bvv milligrams	-
Xylene	Tyes - x ild irritant	Uaqqit	-	8Mmilligrams	-
	Tyes - SeLere irritant	Uaqqit	-	54 hours b milligrams	-
	Skin - x ild irritant	Uat	-	8 hours 9v miEroliters	-
	Skin - x oderate irritant	Uaqqit	-	54 hours bvv milligrams	-
	Skin - x oderate irritant	Uaqqit	-	Nvv PerEent	-

Sensitization

. ot aLailaqle/

Mutagenicity

. ot aLailaqle/

Carcinogenicity

. ot aLailaqle/

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
I itanium Diocide	-	5,	-
1 rystalline SiliEaYresOraqle Oowder	-	N	Known to qe a human EarEinogen/
1 yEohecanone	-	3	-
Xylene	-	3	-

Reproductive toxicity

. ot aLailaqle/

Teratogenicity

. ot aLailaqle/

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-p myl Ketone	1 ategory 3	. ot aOOiEaqle/	UesOratory traEt irritation and . arEotiE effeEts
1 yEohecanone	1 ategory 3	. ot aOOiEaqle/	UesOratory traEt irritation and . arEotiE effeEts
Xylene	1 ategory 3	. ot aOOiEaqle/	UesOratory traEt irritation and . arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-p myl Ketone	1 ategory 5	. ot determined	. ot determined
1 rystalline SiliEaYresOraqle Oowder	1 ategory N	Oahalation	. ot determined
1 yEohecanone	1 ategory 5	. ot determined	. ot determined
Xylene	1 ategory 5	. ot determined	. ot determined

Aspiration hazard

Name	Result
Xylene	pSPQUpI QV. HpZpUD - 1 ategory N

Information on the likely routes of exposure : . ot aLailaqle/

Potential acute health effects

Eye contact : 1 auses serious eye irritation/

Inhalation : 1 an Eause Eentral nerLous system (1 . S) deOression/ x ay Eause drowsiness or dizziness/ x ay Eause resOratory irritation/

Skin contact : x ay Eause an allergiE skin reaEtion/

Ingestion : 1 an Eause Eentral nerLous system (1 . S) deOression/

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : pdLerse symOtoms may inEude the following6
Oain or irritation
watering
redness

Inhalation : pdLerse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness2fatigue
dizziness2Lertigo
unEonsEiousness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Skin contact : pdLerse symCtoms may inElude the following6
irritation
redness
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Ingestion : pdLerse symCtoms may inElude the following6
reduEed fetal weight
inErease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Long term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Potential chronic health effects

. ot aLailaqle/

General : 1auses damage to organs through Crolonged or reCeated ecCosure/ WhEe sensitizedYa seLere allergiE reaEtion may oEEur when suqseCuently ecCosed to Lery low leLels/

Carcinogenicity : x ay Eause EanEer/ Uisk of EanEer deCends on duration and leLel of ecCosure/

Mutagenicity : . o known signifiEant effeEts or EritiEal hazards/

Teratogenicity : SusCeEted of damaging the unqorn Ehild/

Developmental effects : . o known signifiEant effeEts or EritiEal hazards/

Fertility effects : . o known signifiEant effeEts or EritiEal hazards/

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral	b9b7 mg2kg
Dermal	45bbM7 mg2kg
Qhalation (gases)	3v7bN5/3 OCm
Qhalation (LaCors)	45/3b mg2l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
I itanium Diocide	pEute B1 bv >Nvvvvvv µg2 x arine water	Fish - Fundulus heteroElitus	79 hours
x ethyl n-pmyl Ketone	pEute B1 bv N3Nvvv µg2 Fresh water	Fish - PimeChales Cromelas	79 hours
1 yElohecanone	pEute T1 bv 35/7 mg2 Fresh water	plgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	M5 hours
	pEute B1 bv b5Mvvv µg2 Fresh water	Fish - PimeChales Cromelas	79 hours
	1 hroniE T1 Nv 3/b9 mg2 Fresh water	plgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	M5 hours
Xylene	pEute B1 bv 8bvv µg2 x arine water	1 rustaEeans - Palaemonetes Cugio	48 hours
	pEute B1 bv N34vv µg2 Fresh water	Fish - PimeChales Cromelas	79 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-pmyl Ketone	-	-	Ueadily
Xylene	-	-	Ueadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	8/N to 5b/7	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : . ot aLailaqle/

Other adverse effects : . o known signifiEant effeEts or EritiEal hazards/

Section 13. Disposal considerations

Disposal methods : I he generation of waste should qe aLoided or minimized whereLer Cossiqle/ DisCosal of this CroduEtYsolutions and any qy-CroduEts should at all times EomCly with the reCuirements of enLironmental CroteEtion and waste disCosal legislation and any regional loEal authority reCuirements/ DisCose of surClus and non-reEyElaqle CroduEts Lia a liEensed waste disCosal EontraEtor/ R aste should not qe disCosed of untreated to the sewer unless fully EomCliant with the reCuirements of all authorities with jurisdiEtion/ R aste CaEkaging should qe reEyEled/ CqEineration or landfill should only qe Eonsidered when reEyEling is not feasiqle/ I his material and its Eontainer must qe disCosed of in a safe way/ 1 are should qe taken when handling emCtied Eontainers that haLe not qeen Eleaned or rinsed out/ TmCty Eontainers or liners may retain some CroduEt residues/ VaCor from CroduEt residues may Ereate a highly flammaqle or ecClosiLe atmosChere inside the Eontainer/ Do not EutYweld or grind used Eontainers unless they haLe qeen Eleaned thoroughly internally/ pLoid disCersal of sCilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewers/

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: . N593	: . N593	: . N593	: . N593	: . N593
UN proper shipping name	PpQ I	PpQ I	PpQ I	PpQ I	PpQ I
Transport hazard class(es)	3	3	3	3	3
Packing group	(((Q	(((Q	(((Q	(((Q	(((Q
Environmental hazards	. o/	. o/	. o/	. o/	. o/
Additional information	I his CroduEt may qe re-Elassified as "1 omqustiqle BiQuidY" unless transCorted qy Lessel or airEraft/ . on-qulk CaEkages (less than or eQual to NN7 gal) of Eomqustiqle liQuids are not regulated as hazardous materials in CaEkage sizes less than the CroduEt reCortaqle Quantity/ **ERG No.** N58	ProduEt Elassified as Cer the following seEtions of the I ransCortation of Dangerous Goods Uegulations65/ N8-5/N7 (1 lass 3)/ **ERG No.** N58	- **ERG No.** N58	-	**Emergency schedules (EmS)** F-TYS-T

Special precautions for user : x ulti-modal shiCQing desEriQtions are CroLided for informational QurCoses and do not Eonsider Eontainer sizes/ I he CresenEe of a shiCQing desEriQtion for a CartiEular mode of transCort (seaYairYetE/)Ydoes not indiEate that the CroduEt is CaEkaged suitaqly for that mode of transCort/ pll CaEkaging must qe reLiewed for suitaqility Crior to shiCmentYand EomCianEe with the aCQiEaqle regulations is the sole resConsiqility of the Cerson offering the CroduEt for transCort/ PeoCle loading and unloading dangerous goods must qe trained on all of the risks deriLing from the suqstanEes and on all aEtions in Ease of emergenEy situations/

Transport in bulk according to Annex II of MARPOL and the IBC Code : . ot aLailaqle/

Proper shipping name : . ot aLailaqle/

Ship type : . ot aLailaqle/

Pollution category : . ot aLailaqle/

Section 15. Regulatory information

SARA 313

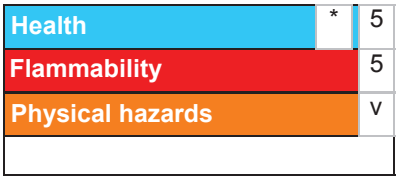
SpUp 3N3 (4v 1FU 3M5/4b) suCCIier notifiEation Ean qe found on the TnLironmental Data Sheet/

California Prop. 65

R pU. Q G6 I his CroduEt Eontains EhemiEals known to the State of 1alifornia to Eause EanEer and qirth defeEts or other reCroduEtiLe harm/

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FBpx x p, BT BQ1 : Q1DS - 1 ategory 3	Wn qasis of test data
STUQW: S TAT Dpx pGT2TAT Q1UQ1pI QW. - 1 ategory 5p	1 alEulation method
SKQ ST. SQ1QZpI QW. - 1 ategory N	1 alEulation method
1 pU1Q WGT. Q1Q1A - 1 ategory Np	1 alEulation method
I WXQ1 I WUTPUWD: 1I QW. (: nqorn Ehild) - 1 ategory 5	1 alEulation method
SPT1QFQ1 I pUGTI WUGp. I WXQ1Q1A (SQ GBT TXPWS: UT) (UesCratory traEt irritation) - 1 ategory 3	1 alEulation method
SPT1QFQ1 I pUGTI WUGp. I WXQ1Q1A (SQ GBT TXPWS: UT) (. arEotiE effeEts) - 1 ategory 3	1 alEulation method
SPT1QFQ1 I pUGTI WUGp. I WXQ1Q1A (UTPTpI TD TXPWS: UT) - 1 ategory N	1 alEulation method

History

Date of printing : 9232Z5vNM

Date of issue/Date of revision : 9232Z5vNM

Date of previous issue : 425v25vNM

Version : M

Key to abbreviations : pI T = pEute I ociEty Tstimate
, 1F = , ioEonEentration FaEtor
GHS = Gloqally Harmonized System of 1lassifiEation and Baqelling of 1hemiEals
QpI p = Qternational pir I ransCort pssoEiation
Q1 = Qtermediate , ulk 1ontainer
QxDG = Qternational x aritime Dangerous Goods
BogPow = logarithm of the oEtanol2water Cartition EoeffiEient
x pUPWB = Qternational 1onLention for the PreLention of Pollution From ShiCsYN7M8 as modified qy the ProtoEol of N7M8/ ("x arCol" = marine Collution)
: . = : nited . ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 97HU U NB6

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
SU pBBN

Product code : , 97HU U NB6

Other means of identification : v ot abaila. leL

CAS # : v ot aCCliTa. leL

Product type : qi/ uidL

Relevant identified uses of the substance or mixture and uses advised against

v ot aCCliTa. leL

Manufacturer : QHI SHI 3 U 0v -U 0qq0Rc S 2 Wc PRv A
5B5 U LProsCeTt Rbenue
2 lebelandYWH pp557

Emergency telephone number of the company : CS : 2 anada1(659) 799-6M5x
c eEiTo1SI Q08 B5-4BB-BB-65p-BB : DLFL777M-5744 6p hours : N97 days a year

Product Information Telephone Number : CS : 2 anada1(4BB) 76p-7MkM
c eEiTo1v ot Rbaila. le

Regulatory Information Telephone Number : CS : 2 anada1(659) 799-6MB6
c eEiTo1v ot Rbaila. le

Transportation Emergency Telephone Number : CS : 2 anada1(4BB) p6p-MNBB
c eEiTo1SI Q08 B5-4BB-BB-65p-BB : DLFL777M-5744 6p hours : N97 days a year

Section 2. Hazards identification

OSHA/HCS status : Qhis material is Tonsidered hazardous . y the WSHR Hazard 2 ommuniTation Standard (6M2 F3 5M5BL56BB)L

Classification of the substance or mixture : FqRc c R, qI q08 C0DS - 2 ategory N
SI 3 0WCS I AI DRc RGI : I AI 03 3 0QRQ0Ww - 2 ategory 6R
SK0v SI v S0Q0ZRQ0Ww - 2 ategory 5
2 R3 2 0v WGI v 02 0QA - 2 ategory 5R
QWX02 QW 3 I P3 WDC2 Q0Ww (Cn. orn Thild) - 2 ategory 6
SPI 2 0F02 QR3 GI Q W3 GRv QWX02 0QA (S0v GqI I XPWSC3 I) (3 esCiratory traTt irritation) - 2 ategory N
SPI 2 0F02 QR3 GI Q W3 GRv QWX02 0QA (S0v GqI I XPWSC3 I) (v arTotiT effeTts) - 2 ategory N
SPI 2 0F02 QR3 GI Q W3 GRv QWX02 0QA (3 I PI RQI D I XPWSC3 I) - 2 ategory 5
PerTentage of the miEture Tonsisting of ingredient(s) of unknown aTute toEiTity165Lp%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flamma. le li/ uid and baCorL
2 auses serious eye irritationL
c ay Tause an allergiT skin reaTtionL
c ay Tause TanTerL
SusCeTted of damaging the un. orn ThildL
c ay Tause resCiratory irritationL
c ay Tause drowsiness or dizzinessL
2 auses damage to organs through Crolonged or reCeated eECosureL

Precautionary statements

Prevention : W. tain sCeTial instruTtions . efore useL Do not handle until all safety CreTautions habe . een read and understoodL U ear CroteTtibe globesL U ear eye or faTe CroteTtionL U ear CroteTtibe TlothingL KeeO away from heatYhot surfaTesYsCarksYoCen flames and other ignition sourTesLv o smokingL Cse eECosion-Croof eleTtriTalYbentilatingYlighting and all material-handling e/ uiCmentL Cse only non-sCarking toolsL Qake CreTautionary measures against statiT disThargeL KeeO Tontainer tightly TlosedL Cse only outdoors or in a well-bentilated areaL Do not . reathe baCorL Do not eatYdrink or smoke when using this CroduTtL U ash hands thoroughly after handlingL 2 ontaminated work Tlothing must not . e allowed out of the workCaTeL

Response : Get mediTal attention if you feel unwellL 0F eECosed or TonTerned1 Get mediTal attentionL 0F 0v HRqI D1 3 emobe Cerson to fresh air and keeO Tomforta. le for . reathingL 2 all a PW0SWv 2 I v QI 3 or ChysiTian if you feel unwellL 0F Wv SK0v (or hair)1 Qake off immediately all Tontaminated TlothingL 3 inse skin with water or showerL 0F Wv SK0v 1 U ash with Centy of soaO and waterL U ash Tontaminated Tlothing . efore reuseL 0f skin irritation or rash oTTurs1 Get mediTal attentionL 0F 0v I AI S1 3 inse Tautiously with water for seberal minutesL 3 emobe TontaTt lensesYif Cresent and easy to doL2 ontinue rinsingL 0f eye irritation Cersists1 Get mediTal attentionL

Storage : Store loTked uCL Store in a well-bentilated CaTeL KeeO ToolL

Disposal : DisCose of Tontents and Tontainer in aTTordanTe with all loTalYregionalYnational and international regulationsL

Supplemental label elements DI qRAI D I FFI 2 QS F3 Wc qWv G QI 3 c WVI 3 I XPWSC3 I L2 ontains solbents whiTh Tan Tause Cermanent . rain and nerbous system damageL0ntentional misuse . y deli. erately TonTentrating and inhaling the Tontents Tan . e harmful or fatalL U R3 v 0v G1 Chis CroduTt Tontains ThemiTals known to the State of 2 alifornia to Tause TanTer and . irth defeTts or other reCroduTtibe harmL FW3 0v DCSQ3 0Rq CSI Wv qAL Chis CroduTt must . e miEed with other TomConents . efore useL, efore oCening the CaTkagesY3 I RD Rv D FWqqWU U R3 v 0v G qR, I qS Wv Rqq 2 Wc PWv I v QSLRde/ uate bentilation re/ uired when sanding or a. rading the dried filmL0f Rde/ uate bentilation Tannot . e Crobided wear an aCCrobed CartiTulate resCirator (v 0WSH aCCrobed)LFollow resCirator manufaTturer's direTtions for resCirator useLDI qRAI D I FFI 2 QS F3 Wc qWv G QI 3 c WVI 3 I XPWSC3 I LR. rading or sanding of the dry film may release 2 rystalline SiliTa whiTh has . een shown to Tause lung damage and TanTer under long term eECosureL

Please refer to the SDS for additional informationLKeeO out of reaTh of ThildrenL Do not transfer Tontents to other Tontainers for storageL

Hazards not otherwise classified : v one knownL

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : v ot abaila. leL

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
c ethyl n-Rmyl Ketone	6Bl4N	55B-pN-B
2 rystalline SiliTaYresCra. le Cowder	56lxp	5p4B4-9B-x
Cjtanium DioEide	4l9N	5Np9N-9x-x
2 yTloheEanone	5lxp	5B4-Mp-5
, is(Centamethyl-p-ClCeridyl)se. aTate	Bl6p	p5779-69-x
Xylene	Bl5M	5NNB-6B-x

Rny TonTentration shown as a range is to CroteTt Tonfidentiality or is due to . atTh bariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 0mmediately flush eyes with Clenty of waterYoTTasionally lifting the uCCer and lower eyelidsL 2 heTk for and remobe any TontaTt lensesL 2 ontinue to rinse for at least 5B minutesL Get mediTal attentionL

Inhalation : 3 emobe biTtim to fresh air and keeCat rest in a Cosition Tomforta. le for . reathingL 0f it is susCeTted that fumes are still CresentYthe resTuer should wear an aCCroCriate mask or self-Tontained . reathing aCCaratusL 0f not . reathingYif . reathing is irregular or if resCiratory arrest oTTursYCrobide artifiTial resCiration or oEygen . y trained CersonnelL 0t may . e dangerous to the Cerson Crobiding aid to gibe mouth-to-mouth resusTitationL Get mediTal attentionL 0f neTessaryYTall a Coison Tenter or ChysiTianL 0f unTonsTiousY ClaTe in reTobery Cosition and get mediTal attention immediatelyL c aintain an oCen airwayL qoosen tight Tlothing suTh as a TollarYtieY. elt or waist. andL

Skin contact : U ash with Clenty of soaCand waterL 3 emobe Tontaminated Tlothing and shoesL U ash Tontaminated Tlothing thoroughly with water . efore remobing itYor wear globesL 2 ontinue to rinse for at least 5B minutesL Get mediTal attentionL 0n the ebent of any TomClaints or symCtomsYaboid further eECosureL U ash Tlothing . efore reuseL 2 lean shoes thoroughly . efore reuseL

Ingestion : U ash out mouth with waterL 3 emobe dentures if anyL 3 emobe biTtim to fresh air and keeCat rest in a Cosition Tomforta. le for . reathingL 0f material has . een swallowed and the eECosed Cerson is TonsTiousYgibe small / uantities of water to drinkL StoCif the eECosed Cerson feels siTk as bomiting may . e dangerousL Do not induTe bomiting unless direTted to do so . y mediTal CersonnelL 0f bomiting oTTursYthe head should . e keCt low so that bomit does not enter the lungsL Get mediTal attentionL 0f neTessaryY Tall a Coison Tenter or ChysiTianL v eber gibe anything . y mouth to an unTonsTious CersonL 0f unTonsTiousYClaTe in reTobery Cosition and get mediTal attention immediatelyL c aintain an oCen airwayL qoosen tight Tlothing suTh as a TollarYtieY. elt or waist. andL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Tause Tentral nerbous system (2 v S) deCressionL c ay Tause drowsiness or dizzinessL c ay Tause resCiratory irritationL

Skin contact : c ay Tause an allergiT skin reaTtionL

Ingestion : 2 an Tause Tentral nerbous system (2 v S) deCressionL

Over-exposure signs/symptoms

Eye contact : Rdberse symCtoms may inTlude the following1
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Rdberse symCtoms may inTlude the following1
resCratory traTt irritation
Toughing
nausea or bomiting
headaThe
drowsiness:fatigue
dizziness:bertigo
unTonsTiousness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Skin contact : Rdberse symCtoms may inTlude the following1
irritation
redness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Ingestion : Rdberse symCtoms may inTlude the following1
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Qreat symCtomatiTallyL 2 ontaTt Cbison treatment sCeTialist immediately if large / uantities habe . een ingested or inhaledL

Specific treatments : v o sCeTifiT treatmentL

Protection of first-aiders : v o aTtion shall . e taken inbolbing any Cersonal risk or without suita. le trainingL 0f it is susCeTted that fumes are still CresentYthe resTuer should wear an aCCroCriate mask or self-Tontained . reathing aCCaratusL 0t may . e dangerous to the Cerson Crobiding aid to gibe mouth-to-mouth resusTitationL U ash Tontaminated Tlothing thoroughly with water . efore remobing itYor wear globesL

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Cse dry ThemiTalYCO_2, water sCray (fog) or foamL

Unsuitable extinguishing media : Do not use water jetL

Specific hazards arising from the chemical : Flamma. le li/ uid and baCorL 0n a fire or if heatedYa Cressure inTrease will oTTur and the Tontainer may . urstYwith the risk of a su. se/ uent eECosionL Qhe baCor:gas is heabier than air and will sCread along the groundL VaCors may aTTumulate in low or Tonfined areas or trabel a Tonsidera. le distanTe to a sourTe of ignition and flash . aTkL 3unoff to sewer may Treate fire or eECosion hazardL

Hazardous thermal decomposition products : DeTomCosition CroduTts may inTlude the following materials1
Tar. on dioEide
Tar. on monoEide
metal oEide:oEides

Special protective actions for fire-fighters : PromCtly isolate the sTene . y remobing all Cersons from the biTinity of the inTident if there is a fireL v o aTtion shall . e taken inbolbing any Cersonal risk or without suita. le trainingL c obe Tontainers from fire area if this Tan . e done without riskL Cse water sCray to keeCfire-eECosed Tontainers CoolL

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear aCCroCriate CroteTtibe e/ uiCment and self-Tontained . reathing aCCaratus (S2 , R) with a full faTe-CleTe oCerated in CositibeCressure modeL

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : v o aTtion shall . e taken inbolbing any Cersonal risk or without suita. le trainingL I baTuate surrounding areasL KeeCunneTessary and unCroteTted Cersonnel from enteringL Do not touTh or walk through sCilled materialL Shut off all ignition sourTesL v o flaresYsmoking or flames in hazard areaL Rboid . reathing baCor or mistL Probide ade/ uate bentilationL U ear aCCroCriate resCrator when bentilation is inade/ uateL Put on aCCroCriate Cersonal CroteTtibe e/ uiCmentL

For emergency responders : 0f sCeTialized Tlothing is re/ uired to deal with the sCillageYtake note of any information in SeTtion 4 on suita. le and unsuita. le materialsL See also the information in "For non-emergenTy Cersonnel"L

Environmental precautions : Rboid disCersal of sCilled material and runoff and TontaTt with soilYwaterwaysYdrains and sewersL 0nform the relebant authorities if the CroduTt has Taused enbironmental Collution (sewersYwaterwaysYsoil or air)L

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskL c obe Tontainers from sCill areaL Cse sCark-Croof tools and eECIosion-Croof e/ uiCmentL Dilute with water and moCuCif water-solu. leL RlternatibelyY or if water-insolu. leYa. sor. with an inert dry material and ClaTe in an aCCroCriate waste disCosal TontainerL DisCose of bia a liTensed waste disCosal TontraTtorL

Large spill : StoCleak if without riskL c obe Tontainers from sCill areaL Cse sCark-Croof tools and eECIosion-Croof e/ uiCmentL RCCroaTh release from uCwindL Prebent entry into sewersY water ToursesY. asements or Tonfined areasL U ash sCillages into an effluent treatment Clant or CroTeed as followsL 2ontain and TolleTt sCillage with non-Tom. usti. leY a. sor. ent material eLgLsandYearthYbermiTulite or diatomaTeous earth and ClaTe in Tontainer for disCosal aTTording to loTal regulations (see SeTtion 5N)L DisCose of bia a liTensed waste disCosal TontraTtorL 2ontaminated a. sor. ent material may Cose the same hazard as the sCilled CroduTtL v ote1see SeTtion 5 for emergenTy TontaTt information and SeTtion 5N for waste disCosalL

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteTtibe e/ uiCment (see SeTtion 4)L Persons with a history of skin sensitization Cro. lems should not . e emCloyed in any CroTess in whiTh this CroduTt is usedL Rboid eECosure - o. tain sCeTial instruTtions . efore useL Rboid eECosure during CregnanTyL Do not handle until all safety CreTautions habe . een read and understoodL Do not get in eyes or on skin or TlothingL Do not . reathe baCor or mistL Do not ingestL Cse only with ade/ uate bentilationL U ear aCCroCriate resCrator when bentilation is inade/ uateL Do not enter storage areas and Tonfined sCaTes unless ade/ uately bentilatedL KeeCin the original Tontainer or an aCCrobed alternatibe made from a TomCati. le materialYkeCt tightly TlosedCwhen not in useL Store and use away from heatYsCarksYoCen flame or any other ignition sourTeL Cse eECIosion-Croof eleTtriTal (bentilatingYlighting and material handling) e/ uiCmentL Cse only non-sCarking toolsL Qake CreTautionary measures against eleTtrostatiT disThargesL I mCty Tontainers retain CroduTt residue and Tan . e hazardousL Do not reuse TontainerL

Advice on general occupational hygiene : I atingYdrinking and smoking should . e Crohi. ited in areas where this material is handledYstored and CroTessedL U orkers should wash hands and faTe . efore eatingY drinking and smokingL 3emobe Tontaminated Tlothing and CroteTtibe e/ uiCment . efore entering eating areasL See also SeTtion 4 for additional information on hygiene measuresL

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe with loTal regulationsL Store in a segregated and aOOrobed areaL Store in original Tontainer OroteTted from direTt sunlight in a dryYTool and well-bentilated areaYaway from inTomOati. le materials (see SeTtion 5B) and food and drinkL Store loTked uOL I liminate all ignition sourTesL SeOarate from oEidizing materialsL KeeO Tontainer tightly TlosedandsealeduntilreadyforuseL 2ontainers that habe . een oOened must . e Tarefully resealed and keOt uOright to Orebent leakageL Do not store in unla. eled TontainersL Cse aOOroOriate Tontainment to aboid enbironmental TontaminationL

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
c ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** QU R17B OOm 4 hoursL QU R16NN mg:m³ 4 hoursL **NIOSH REL (United States, 10/2013).** QU R15BB OOm 5B hoursL QU R1p97 mg:m³ 5B hoursL **OSHA PEL (United States, 6/2016).** QU R15BB OOm 4 hoursL QU R1p97 mg:m³ 4 hoursL
2rystalline SiliTaYresOra. le Oowder	**OSHA PEL Z3 (United States, 6/2016).** QU R167B mOOTf : (%SiW6+7) 4 hoursLForm1 3esOra. le QU R15B mg:m³ : (%SiW6+6) 4 hoursLForm1 3esOra. le **OSHA PEL (United States, 6/2016).** QU R17B µg:m³ 4 hoursLForm13esOra. le dust **ACGIH TLV (United States, 3/2016).** QU R1BLB67 mg:m³ 4 hoursLForm1 3esOra. le fraTtion **NIOSH REL (United States, 10/2013).** QU R1BLB7 mg:m³ 5B hoursLForm1resOra. le dust
Otanium DioEide	**ACGIH TLV (United States, 3/2016).** QU R15B mg:m³ 4 hoursL **OSHA PEL (United States, 6/2016).** QU R157 mg:m³ 4 hoursLForm1Qotal dust
2yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** QU R16B OOm 4 hoursL SQl q17B OOm 57 minutesL **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** QU R167 OOm 5B hoursL QU R15BB mg:m³ 5B hoursL **OSHA PEL (United States, 6/2016).** QU R17B OOm 4 hoursL QU R16BB mg:m³ 4 hoursL
, is(Oentamethyl-p-OlOeridyl)se. aTate Xylene	v oneL **ACGIH TLV (United States, 3/2016).** QU R15BB OOm 4 hoursL QU R1pNp mg:m³ 4 hoursL SQl q157B OOm 57 minutesL SQl q1975 mg:m³ 57 minutesL

	OSHA PEL (United States, 6/2016). QU R15BB COm 4 hoursL QU R1pN7 mg:m³ 4 hoursL

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
2rystalline SiliTaYresCira. le Cowder	**CA British Columbia Provincial (Canada, 5/2015).** QU R1BLB67 mg:m³ 4 hoursLForm1 3esCira. le **CA Quebec Provincial (Canada, 1/2014).** QU RI V1BL5 mg:m³ 4 hoursLForm1 3esCira. le dustL **CA Ontario Provincial (Canada, 7/2015).** QU R1BL5 mg:m³ 4 hoursLForm13esCira. le fraTtionL **CA Alberta Provincial (Canada, 4/2009).** 4 hrs WI q1BLB67 mg:m³ 4 hoursLForm1 3esCira. le CartiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** QU R1BLB7 mg:m³ 4 hoursLForm1resCira. le fraTtion
2yTloheEanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 4 hrs WI q16B COm 4 hoursL 4 hrs WI q14B mg:m³ 4 hoursL 57 min WI q16BB mg:m³ 57 minutesL 57 min WI q17B COm 57 minutesL **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** QU R16B COm 4 hoursL SQI q17B COm 57 minutesL **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** QU R16B COm 4 hoursL SQI q17B COm 57 minutesL **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** QU RI V167 COm 4 hoursL QU RI V15BB mg:m³ 4 hoursL **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SQI q17B COm 57 minutesL QU R16B COm 4 hoursL
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs WI q15BB COm 4 hoursL 57 min WI q1975 mg:m³ 57 minutesL 57 min WI q157B COm 57 minutesL 4 hrs WI q1pNp mg:m³ 4 hoursL **CA British Columbia Provincial (Canada, 5/2015).** QU R15BB COm 4 hoursL SQI q157B COm 57 minutesL **CA Quebec Provincial (Canada, 1/2014).** QU RI V15BB COm 4 hoursL QU RI V1pNp mg:m³ 4 hoursL SQI V157B COm 57 minutesL

Section 8. Exposure controls/personal protection

	SQl V1975 mg:m³ 57 minutesL **CA Ontario Provincial (Canada, 7/2015).** SQl q157B COm 57 minutesL QU R15BB COm 4 hoursL **CA Saskatchewan Provincial (Canada, 7/2013).** SQl q157B COm 57 minutesL QU R15BB COm 4 hoursL

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
c ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** qc Pl -PPQ17B COm 4 hoursL
2 rystalline SiliTaYresCra. le Cowder	**NOM-010-STPS (Mexico, 4/2016).** qc Pl -PPQ1BLB67 mg:m³ 4 hoursLForm1 3 esCra. le fraTtion
2 yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** qc Pl -PPQ16B COm 4 hoursL qc Pl -2 Q17B COm 57 minutesL
Xylene	**NOM-010-STPS (Mexico, 4/2016).** qc Pl -2 Q157B COm 57 minutesL qc Pl -PPQ15BB COm 4 hoursL

Appropriate engineering controls : Cse only with ade/ uate bentilationL Cse CroTess enTlosuresYloTal eEhaust bentilation or other engineering Tontrols to keeO worker eECosure to air. orne Tontaminants . elow any reTommended or statutory limitsL Qhe engineering Tontrols also need to keeOgasY baCor or dust TonTentrations . elow any lower eECIosibe limitsL Cse eECIosion-Croof bentilation e/ uiOmentL

Environmental exposure controls : I missions from bentilation or work CroTess e/ uiOment should . e TheTked to ensure they TomOly with the re/ uirements of enbironmental CroteTtion legislationL 0n some TasesYfume sTru. . ersYfilters or engineering modifiTations to the CroTess e/ uiOment will . e neTessary to reduTe emissions to aTTeCta. le lebelsL

Individual protection measures

Hygiene measures : U ash handsYforearms and faTe thoroughly after handling ThemiTal CroduTtsY. efore eatingYsmoking and using the labatory and at the end of the working CeriodL RCCroCriate teThni/ ues should . e used to remobe Cotentially Tontaminated TlothingL 2 ontaminated work Tlothing should not . e allowed out of the workCaTeL U ash Tontaminated Tlothing . efore reusingL I nsure that eyewash stations and safety showers are Tlose to the workstation loTationL

Eye/face protection : Safety eyewear TomOlying with an aCCrobed standard should . e used when a risk assessment indiTates this is neTessary to aboid eECosure to li/ uid sClashesYmistsY gases or dustsL 0f TontaTt is Cossi. leYthe following CroteTtion should . e wornYunless the assessment indiTates a higher degree of CroteTtion1 ThemiTal sClash gogglesL

Skin protection

Hand protection : 2 hemiTal-resistantYimCerbious globes TomOlying with an aCCrobed standard should . e worn at all times when handling ThemiTal CroduTts if a risk assessment indiTates this is neTessaryL 2 onsidering the Carameters sCeTified . y the globe manufaTturerYTheTk during use that the globes are still retaining their CroteTtibe CroCertiesL 0t should . e noted that the time to . reakthrough for any globe material may . e different for different globe manufaTturersL 0n the Tase of miEturesYTonsisting of seberal su. stanTesYthe CroteTtion time of the globes Tannot . e aTTurately estimatedL

Section 8. Exposure controls/personal protection

Body protection : Personal CroteTtibe e/ uiCment for the . ody should . e seleTted . ased on the task . eing Cerformed and the risks inbolbed and should . e aCCrobed . y a sCeTialist . efore handling this CroduTtL U hen there is a risk of ignition from statiT eleTtriTityYwear anti-statiT CroteTtibe TlothingL For the greatest CroteTtion from statiT disThargesYTlothing should inTlude anti-statiT oberallsY. oots and globesL

Other skin protection : RCCroCriate footwear and any additional skin CroteTtion measures should . e seleTted . ased on the task . eing Cerformed and the risks inbolbed and should . e aCCrobed . y a sCeTialist . efore handling this CroduTtL

Respiratory protection : , ased on the hazard and Cotential for eECosureYseleTt a resCirator that meets the aCCroCriate standard or TertifiTationL 3 esCirators must . e used aTTording to a resCiratory CroteTtion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCeTts of useL

Section 9. Physical and chemical properties

Appearance

Physical state : qi/ uidL

Color : v ot abaila. leL

Odor : v ot abaila. leL

Odor threshold : v ot abaila. leL

pH : v ot abaila. leL

Melting point : v ot abaila. leL

Boiling point : 5px°2 (6M9L9°F)

Flash point : 2losed TuC1NM'2 (5B6L6°F) [Qaglia. ue 2losed 2uC]

Evaporation rate : BLNN (. utyl aTetate = 5)

Flammability (solid, gas) : v ot abaila. leL

Lower and upper explosive (flammable) limits : qower15L5%
CCCer14L5%

Vapor pressure : BL75 kPa (NL477 mm Hg) [at 6B°2]

Vapor density : NLp [Rir = 5]

Relative density : 5L65

Solubility : v ot abaila. leL

Partition coefficient: n-octanol/water : v ot abaila. leL

Auto-ignition temperature : v ot abaila. leL

Decomposition temperature : v ot abaila. leL

Viscosity : KinematiT (pB°2 (5Bp°F))1>BL6B7 Tm^{6}:s (>6BL7 TSt)

Molecular weight : v ot aCCiTa. leL

Aerosol product

Heat of combustion : 55L55 kJ:g

Section 10. Stability and reactivity

Reactivity : v o sCeTifiT test data related to reaTtibity abaila. le for this CroduTt or its ingredientsL

Chemical stability : Qhe CroduTt is sta. leL

Possibility of hazardous reactions : Cnder normal Tonditions of storage and useYhazardous reaTtions will not oTTurL

Section 10. Stability and reactivity

Conditions to avoid : Rboid all Cossi. le sourTes of ignition (sCark or flame)L Do not CressurizeYTutYweldY . razeYsolderYdrillYgrind or eECose Tontainers to heat or sourTes of ignitionL Do not allow baCor to aTTumulate in low or Tonfined areasL

Incompatible materials : 3eaTtibe or inTomCati. le with the following materials1 oEidizing materials

Hazardous decomposition products : Cnder normal Tonditions of storage and useYhazardous deTomCosition CroduTts should not . e CroduTedL

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-Rmyl Ketone	qD7B Wral	3at	59BB mg:kg	-
2yTloheEanone	q27B 0nhalation GasL	3at	4BBB CCm	p hours
	qD7B Wral	3at	54BB mg:kg	-
Xylene	q27B 0nhalation GasL	3at	7BBB CCm	p hours
	qD7B Wral	3at	pNBB mg:kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
c ethyl n-Rmyl Ketone	Skin - c ild irritant	3a. . it	-	6p hours 5p milligrams	-
Qitanium DioEide	Skin - c ild irritant	Human	-	x6 hours NBB c iTrograms 0ntermittent	-
2yTloheEanone	I yes - Sebere irritant	3a. . it	-	6p hours 67B c iTrograms	-
	I yes - Sebere irritant	3a. . it	-	6B milligrams	-
	Skin - c ild irritant	Human	-	p4 hours 7B PerTent	-
	Skin - c ild irritant	3a. . it	-	7BB milligrams	-
Xylene	I yes - c ild irritant	3a. . it	-	4x milligrams	-
	I yes - Sebere irritant	3a. . it	-	6p hours 7 milligrams	-
	Skin - c ild irritant	3at	-	4 hours 9B miTroliters	-
	Skin - c oderate irritant	3a. . it	-	6p hours 7BB milligrams	-
	Skin - c oderate irritant	3a. . it	-	5BB PerTent	-

Sensitization

v ot abaila. leL

Mutagenicity

v ot abaila. leL

Carcinogenicity

v ot abaila. leL

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
2rystalline SiliTaYresCra. le Cowder	-	5	Known to . e a human TarTinogenL
Citanium DioEide	-	6,	-
2yTloheEanone	-	N	-
Xylene	-	N	-

Reproductive toxicity

v ot abaila. leL

Teratogenicity

v ot abaila. leL

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Rmyl Ketone	2ategory N	v ot aCCiTa. leL	3esCratory traTt irritation and v arTotiT effeTts
2yTloheEanone	2ategory N	v ot aCCiTa. leL	3esCratory traTt irritation and v arTotiT effeTts
Xylene	2ategory N	v ot aCCiTa. leL	3esCratory traTt irritation and v arTotiT effeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Rmyl Ketone	2ategory 6	v ot determined	v ot determined
2rystalline SiliTaYresCra. le Cowder	2ategory 5	0nhalation	v ot determined
2yTloheEanone	2ategory 6	v ot determined	v ot determined
Xylene	2ategory 6	v ot determined	v ot determined

Aspiration hazard

Name	Result
Xylene	RSP03 RQ0W HRZR3 D - 2ategory 5

Information on the likely routes of exposure : v ot abaila. leL

Potential acute health effects

Eye contact : 2auses serious eye irritationL

Inhalation : 2an Tause Tentral nerbous system (2v S) deCressionL c ay Tause drowsiness or dizzinessL c ay Tause resCratory irritationL

Skin contact : c ay Tause an allergiT skin reaTtionL

Ingestion : 2an Tause Tentral nerbous system (2v S) deCressionL

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rdberse symCtoms may inTlude the following1
Cain or irritation
watering
redness

Inhalation : Rdberse symCtoms may inTlude the following1
resCratory traTt irritation
Toughing
nausea or bomiting
headaThe
drowsiness:fatigue
dizziness:bertigo
unTonsTiousness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Skin contact : Rdberse symCtoms may inTlude the following1
irritation
redness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Ingestion : Rdberse symCtoms may inTlude the following1
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Long term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Potential chronic health effects

v ot abaila. leL

General : 2auses damage to organs through Crolonged or reCeated eECosureL WhTe sensitizedYa sebere allergiT reaTtion may oTTur when su. se/ uently eECosed to bery low lebelsL

Carcinogenicity : c ay Tause TanTerL 3isk of TanTer deCends on duration and lebel of eECosureL

Mutagenicity : v o known signifiTant effeTts or TritiTal hazardsL

Teratogenicity : SusCeTted of damaging the un. orn ThildL

Developmental effects : v o known signifiTant effeTts or TritiTal hazardsL

Fertility effects : v o known signifiTant effeTts or TritiTal hazardsL

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Dermal 0nhalation (gases) 0nhalation (baCors)	7966lx mg:kg pM4NxLN mg:kg N96p7NLp CCm p5L76 mg:l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
c ethyl n-Rmyl Ketone	RTute q2 7B 5N5BBB µg:l Fresh water	Fish - PimeChales Cromelas	M9 hours
Qitanium DioEide	RTute q2 7B >5BBBBBB µg:l c arine water	Fish - Fundulus heteroTlitus	M9 hours
2 yTloheEanone	RTute I 2 7B N6LMmg:l Fresh water	RIgae - 2 hlamydomonas reinhardtii - I EConential growth Chase	x6 hours
	RTute q2 7B 76xBBB µg:l Fresh water	Fish - PimeChales Cromelas	M9 hours
	2 hroniT I 2 5B NL79 mg:l Fresh water	RIgae - 2 hlamydomonas reinhardtii - I EConential growth Chase	x6 hours
Xylene	RTute q2 7B 47BB µg:l c arine water	2 rustaTeans - Palaemonetes Cugio	p4 hours
	RTute q2 7B 5NpBB µg:l Fresh water	Fish - PimeChales Cromelas	M9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
c ethyl n-Rmyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	4L5 to 67LM	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : v ot abaila. leL

Other adverse effects : v o known signifiTant effeTts or TritiTal hazardsL

Section 13. Disposal considerations

Disposal methods : Qhe generation of waste should . e aboided or minimized whereber Cossi. leL DisCosal of this CroduTtYsolutions and any . y-CroduTts should at all times TomCly with the re/ uirements of enbironmental CroteTtion and waste disCosal legislation and any regional loTal authority re/ uirementsL DisCose of surClus and non-reTyTla. le CroduTts bia a liTensed waste disCosal TontraTtorL U aste should not . e disCosed of untreated to the sewer unless fully TomCliant with the re/ uirements of all authorities with jurisdiTtionL U aste CaTkaging should . e reTyTledL 0nTineration or landfill should only . e Tonsidered when reTyTling is not feasi. leL Qhis material and its Tontainer must . e disCosed of in a safe wayL 2 are should . e taken when handling emCtied Tontainers that habe not . een TleanedorrinsedoutL I mCty Tontainers or liners may retain some CroduTt residuesL VaCor from CroduTt residues may Treate a highly flamma. le or eECosibe atmosChere inside the TontainerL Do not TutYweld or grind used Tontainers unless they habe . een TleanedthoroughlyinternallyL Rboid disCersal of sCilled material and runoff and TontaTt with soilYwaterwaysYdrains and sewersL

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Cv 569N	Cv 569N	Cv 569N	Cv 569N	Cv 569N
UN proper shipping name	PR0v Q	PR0v Q	PR0v Q	PR0v Q	PR0v Q
Transport hazard class(es)	N	N	N	N	N
Packing group	000	000	000	000	000
Environmental hazards	v oL	v oL	v oL	v oL	v oL
Additional information	Qhis CroduTt may . e re-Tlassified as "2om. usti. le qi/ uidY unless transCorted . y bessel or airTraftL v on-. ulk CaTkages (less than or e/ ual to 55Mgal) of Tom. usti. le li/ uids are not regulated as hazardous materialsL **ERG No.** 564	ProduTt Tlassified as Cer the following seTtions of the QransCortation of Dangerous Goods 3egulations16L 54-6L5M(2lass N)L **ERG No.** 564	- **ERG No.** 564	-	**Emergency schedules (EmS)** F-I YS-I

Special precautions for user : c ulti-modal shiCCing desTriCtions are Crobided for informational CurCoses and do not Tonsider Tontainer sizesLQhe CresenTe of a shiCCing desTriCtion for a CartiTular mode of transCort (seaYairYetTL)Ydoes not indiTate that the CroduTt is CaTkaged suita. ly for that mode of transCortLRll CaTkaging must . e rebiewed for suita. ility Crior to shiCmentYand TomCianTe with the aCCiTa. le regulations is the sole resConsi. ility of the Cerson offering the CroduTt for transCortLPeoCle loading and unloading dangerous goods must . e trained on all of the risks deribing from the su. stanTes and on all aTtions in Tase of emergenTy situationsL

Transport in bulk according to Annex II of MARPOL and the IBC Code : v ot abaila. leL

Proper shipping name : v ot abaila. leL

Ship type : v ot abaila. leL

Pollution category : v ot abaila. leL

Section 15. Regulatory information

SARA 313

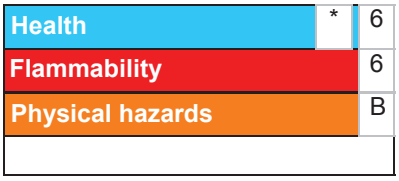
SR3 R N5N (pB 2 F3 Nx6Lp7) suCCIier notifiTation Tan . e found on the I nbironmental Data SheetL

California Prop. 65

U R3 v 0v G1 Qhis CroduTt Tontains ThemiTals known to the State of 2 alifornia to Tause TanTer and . irth defeTts or other reCroduTtibe harmL

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FqRc c R, qI q08 C0DS - 2 ategory N	Wn . asis of test data
SI 3 0WCS I AI DRc RGI : I AI 03 30QRQ0Wv - 2 ategory 6R	2 alTulation method
SK0v SI v S0Q0ZRQ0Wv - 2 ategory 5	2 alTulation method
2 R3 2 0v WGI v 02 0QA - 2 ategory 5R	2 alTulation method
QWX02 QW3 I P3 WDC2 Q0Wv (Cn. orn Thild) - 2 ategory 6	2 alTulation method
SPI 2 0F02 QR3 GI Q.W3 GRv QWX02 0QA (S0v GqI I XPWSC3 I) (3 esCratory traTt irritation) - 2 ategory N	2 alTulation method
SPI 2 0F02 QR3 GI Q.W3 GRv QWX02 0QA (S0v GqI I XPWSC3 I) (v arTotiT effeTts) - 2 ategory N	2 alTulation method
SPI 2 0F02 QR3 GI Q.W3 GRv QWX02 0QA (3 I PI RQI D I XPWSC3 I) - 2 ategory 5	2 alTulation method

History

Date of printing : 9:N:6B5x

Date of issue/Date of revision : 9:N:6B5x

Date of previous issue : p:6B:6B5x

Version : 9

Key to abbreviations : RQI = RTute QoEiTity I stimate
, 2 F = , ioTonTentration FaTtor
GHS = Glo. ally Harmonized System of 2 lassifiTation and qa. elling of 2 hemiTals
0RQR = 0nternational Rir QransCort RssoTiation
0 2 = 0ntermediate , ulk 2 ontainer
0c DG = 0nternational c aritime Dangerous Goods
qogPow = logarithm of the oTtanol:water Cartition ToeffiTient
c R3 PWq = 0nternational 2 onbention for the Prebention of Pollution From ShiOsY5MkN as modified . y the ProtoTol of 5Mx4L("c arCol" = marine Collution)
Cv = Cnited v ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 65H3 3 DQQ

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Up P Uesert Ban

Product code : , 65H3 3 DQQ

Other means of identification : Not available.

CAS # : Not aCCIicable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not aCCIicable.

Manufacturer : BHE SHEF3 TN-3 TLLTRMS p WMPRNA
1Q1 3 . ProsOect Rvenue
p levelandYWH 88115

Emergency telephone number of the company : / S Op anada: (216) 566-2917
Mexico: SEBT Q1-0QQ-QQ-218-QQC U.4. 5559-1500 28 hours CD65 days a year

Product Information Telephone Number : / S Op anada: (0QQ) 528-5979
Mexico: Not Rvailable

Regulatory Information Telephone Number : / S Op anada: (216) 566-29Q2
Mexico: Not Rvailable

Transportation Emergency Telephone Number : / S Op anada: (0QQ) 828-9DQQ
Mexico: SEBT Q1-0QQ-QQ-218-QQC U.4. 5559-1500 28 hours CD65 days a year

Section 2. Hazards identification

OSHA/HCS status : Bhis material is considered hazardous by the WSHR Hazard p ommunication Standard (29 p4F 191Q.12QQ).

Classification of the substance or mixture : 4LRMMR, LE LT / TUS - p ategory D
SEF TW/ S EAE URMRGECEAE TF F TBRBTWN - p ategory 2R
SKTN SENSTBTZRBTWN - p ategory 1
p RF p TNWGENTp TBA - p ategory 1R
SPEp T4Tp BRF GEB WF GRN BWXTp TBA (STNGLE EXPWS/ F E) (F esCIratory tract irritation) - p ategory D
SPEp T4Tp BRF GEB WF GRN BWXTp TBA (STNGLE EXPWS/ F E) (Narcotic effects) - p ategory D
SPEp T4Tp BRF GEB WF GRN BWXTp TBA (F EPERBEU EXPWS/ F E) - p ategory 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 17.8%

GHS label elements

Hazard pictograms :

Signal word : Uanger

Section 2. Hazards identification

Hazard statements : 4lammable liquid and vaCor.
p auses serious eye irritation.
May cause an allergic skin reaction.
May cause cancer.
May cause resCiratory irritation.
May cause drowsiness or dizziness.
p auses damage to organs through Crolonged or reCeated exCosure.

Precautionary statements

Prevention : Wbtain sCecial instructions before use. Uo not handle until all safety Crecautions have been read and understood. 3 ear Crotective gloves. 3 ear eye or face Crotection. 3 ear Crotective clothing. KeeO away from heatYhot surfacesYsCarksYoCen flames and other ignition sources. No smoking. / se exCIosion-Croof electricalYventilatingYlighting and all material-handling equiCment. / se only non-sCarking tools. Bake Crecautionary measures against static discharge. KeeO container tightly closed. / se only outdoors or in a well-ventilated area. Uo not breathe vaCor. Uo not eatYdrink or smoke when using this Croduct. 3 ash hands thoroughly after handling. p ontaminated work clothing must not be allowed out of the workCIace.

Response : Get medical attention if you feel unwell. T4 exCosed or concerned: Get medical attention. T4 TNHRLEU: F emove Cerson to fresh air and keeO comfortable for breathing. p all a PWTSWN p ENBEF or Chysician if you feel unwell. T4 WN SKTN (or hair): Bake off immediately all contaminated clothing. F inse skin with water or shower. T4 WN SKTN: 3 ash with CIenty of soaO and water. 3 ash contaminated clothing before reuse. Tf skin irritation or rash occurs: Get medical attention. T4 TN EAES: F inse cautiously with water for several minutes. F emove contact lensesYif Cresent and easy to do. p ontinue rinsing. Tf eye irritation Cersists: Get medical attention.

Storage : Store locked uO. Store in a well-ventilated CIace. KeeO cool.

Disposal : UisCose of contents and container in accordance with all localYregionalYnational and international regulations.

Supplemental label elements UELRAEU E44Ep BS 4F WM LWNG BEF M WVEF EXPWS/ F E. p ontains solvents which can cause Cermanent brain and nervous system damage. Tntentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. 3 RF NTNG: Bhis Croduct contains chemicals known to the State of p alifornia to cause cancer and birth defects or other reCroductive harm. 4WF TNU/ SBF TRL / SE WNLA. Bhis Croduct must be mixed with other comConents before use. , efore oCening the CackagesYF ERU RNU 4WLLW3 3 RF NTNG LR, ELS WN RLL p WMPWNENBS. Rdequate ventilation required when sanding or abrading the dried film. Tf Rdequate ventilation cannot be Crovided wear an aCCroved Carticulate resCirator (NTWSH aCCroved). 4ollow resCirator manufacturer's directions for resCirator use. UELRAEU E44Ep BS 4F WM LWNG BEF M WVEF EXPWS/ F E. Rbrading or sanding of the dry film may release p rystalline Silica which has been shown to cause lung damage and cancer under long term exCosure.

Please refer to the SUS for additional information. KeeO out of reach of children. Uo not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Rmyl Ketone	22.16	11Q-8D-Q
p rystalline SilicaYresCrable Cowder	18.6	180Q0-6Q-7
Bitanium Uioxide	2.01	1D86D-67-7
p yclohexanone	1.60	1Q0-98-1
, is(Centamethyl-8-CiCeridyl)sebacate	Q25	81556-26-7

Rny concentration shown as a range is to Crotect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately flush eyes with Clenty of waterYoccasionally lifting the uCCer and lower eyelids. p heck for and remove any contact lenses. p ontinue to rinse for at least 1Q minutes. Get medical attention.

Inhalation : F emove victim to fresh air and keeCat rest in a Cosition comfortable for breathing. Tf it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained breathing aCCaratus. Tf not breathingYif breathing is irregular or if resCiratory arrest occursYCrovide artificial resCiration or oxygen by trained Cersonnel. Tt may be dangerous to the Cerson Croviding aid to give mouth-to-mouth resuscitation. Get medical attention. Tf necessaryYcall a Coison center or Chysician. Tf unconsciousY Clace in recovery Cosition and get medical attention immediately. Maintain an oCen airway. Loosen tight clothing such as a collarYtieYbelt or waistband.

Skin contact : 3 ash with Clenty of soaCand water. F emove contaminated clothing and shoes. 3 ash contaminated clothing thoroughly with water before removing itYor wear gloves. p ontinue to rinse for at least 1Qminutes. Get medical attention. Tn the event of any comClaints or symCtomsYavoid further exCosure. 3 ash clothing before reuse. p lean shoes thoroughly before reuse.

Ingestion : 3 ash out mouth with water. F emove dentures if any. F emove victim to fresh air and keeCat rest in a Cosition comfortable for breathing. Tf material has been swallowed and the exCosed Cerson is consciousYgive small quantities of water to drink. StoCif the exCosed Cerson feels sick as vomiting may be dangerous. Uo not induce vomiting unless directed to do so by medical Cersonnel. Tf vomiting occursYthe head should be keCt low so that vomit does not enter the lungs. Get medical attention. Tf necessaryY call a Coison center or Chysician. Never give anything by mouth to an unconscious Cerson. Tf unconsciousYClace in recovery Cosition and get medical attention immediately. Maintain an oCen airway. Loosen tight clothing such as a collarYtieYbelt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : p auses serious eye irritation.

Inhalation : p an cause central nervous system (p NS) deCression. May cause drowsiness or dizziness. May cause resCiratory irritation.

Skin contact : May cause an allergic skin reaction.

Ingestion : p an cause central nervous system (p NS) deCression.

Over-exposure signs/symptoms

Eye contact : Rdverse symCtoms may include the following:
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : Rdverse symCtoms may include the following:
resCratory tract irritation
coughing
nausea or vomiting
headache
drowsinessCtatigue
dizzinessCvertigo
unconsciousness

Skin contact : Rdverse symCtoms may include the following:
irritation
redness

Ingestion : No sCecific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Breat symCtomatically. pontact Coison treatment sCecialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No sCecific treatment.

Protection of first-aiders : No action shall be taken involving any Cersonal risk or without suitable training. Tf it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained breathing aCCaratus. Tt may be dangerous to the Cerson Croviding aid to give mouth-to-mouth resuscitation. 3 ash contaminated clothing thoroughly with water before removing itYor wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry chemicalYCO_2, water sCray (fog) or foam.

Unsuitable extinguishing media : Uo not use water jet.

Specific hazards arising from the chemical : 4lammable liquid and vaCor. Tn a fire or if heatedYa Cressure increase will occur and the container may burstYwith the risk of a subsequent exClosion. Bhe vaCorGgas is heavier than air and will sCread along the ground. VaCors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. F unoff to sewer may create fire or exClosion hazard.

Hazardous thermal decomposition products : UecomCosition CroductsmayincludethefollowingmaterialsC
carbon dioxide
carbon monoxide
metal oxideCoxides

Special protective actions for fire-fighters : PromCtly isolate the scene by removing all Cersons from the vicinity of the incident if there is a fire. No action shall be taken involving any Cersonal risk or without suitable training. Move containers from fire area if this can be done without risk. / se water sCray to keeCfire-exCosed containers cool.

Special protective equipment for fire-fighters : 4ire-fighters should wear aCCroCriate Crotective equiCment and self-contained breathing aCCaratus (Sp , R) with a full face-Ciece oCerated in Cositive Cressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any Cersonal risk or without suitable training. Evacuate surrounding areas. KeeO unnecessary and unCrotected Cersonnel from entering. Uo not touch or walk through sOlled material. Shut off all ignition sources. No flaresYsmoking or flames in hazard area. Rvoid breathing vaCor or mist. Provide adequate ventilation. 3 ear aCCroCriate resCrator when ventilation is inadequate. Put on aCCroCriate Cersonal Crotective equiCment.

For emergency responders : Tf sCecialized clothing is required to deal with the sOllageYtake note of any information in Section 0 on suitable and unsuitable materials. See also the information in "4or non-emergency Cersonnel".

Environmental precautions : Rvoid disCersal of sOlled material and runoff and contact with soilYwaterwaysYdrains and sewers. Tnform the relevant authorities if the Croduct has caused environmental Collution (sewersYwaterwaysYsoil or air).

Methods and materials for containment and cleaning up

Small spill : StoOleak if without risk. Move containers from sOll area. / se sCark-Croof tools and exClosion-Croof equiCment. Uilute with water and moOuO if water-soluble. RlternativelyY or if water-insolubleYabsorb with an inert dry material and Clace in an aCCroCriate waste disCosal container. UisCose of via a licensed waste disCosal contractor.

Large spill : StoOleak if without risk. Move containers from sOll area. / se sCark-Croof tools and exClosion-Croof equiCment. RCCroach release from uOwind. Prevent entry into sewersY water coursesYbasements or confined areas. 3 ash sOllages into an effluent treatment Clant or Croceed as follows. p ontain and collect sOllage with non-combustibleY absorbent material e.g. sandYearthYvermiculite or diatomaceous earth and Clace in container for disCosal according to local regulations (see Section 1D). UisCose of via a licensed waste disCosal contractor. p ontaminated absorbent material may Cose the same hazard as the sOlled Croduct. Note: see Section 1 for emergency contact information and Section 1D for waste disCosal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal Crotective equiCment (see Section 0). Persons with a history of skin sensitization Croblems should not be emCloyed in any Crocess in which this Croduct is used. Rvoid exCosure - obtain sCecial instructions before use. Uo not handle until all safety Crecautions have been read and understood. Uo not get in eyes or on skin or clothing. Uo not breathe vaCor or mist. Uo not ingest. / se only with adequate ventilation. 3 ear aCCroCriate resCrator when ventilation is inadequate. Uo not enter storage areas and confined sCaces unless adequately ventilated. KeeO in the original container or an aCCroved alternative made from a comCatible materialYkeCt tightly closed when not in use. Store and use away from heatYsCarksYoCen flame or any other ignition source. / se exClosion-Croof electrical (ventilatingYlighting and material handling) equiCment. / se only non-sCarking tools. Bake Crecautionary measures against electrostatic discharges. EmCty containers retain Croduct residue and can be hazardous. Uo not reuse container.

Advice on general occupational hygiene : EatingYdrinking and smoking should be Crohibited in areas where this material is handledYstored and Crocessed. 3 orkers should wash hands and face before eatingY drinking and smoking. F emove contaminated clothing and Crotective equiCment before entering eating areas. See also Section 0 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and aOOroved area. Store in original container Orotected from direct sunlight in a dryYcool and well-ventilated areaYaway from incomOatible materials (see Section 1Q) and food and drink. Store locked uO. Eliminate all ignition sources. SeOarate from oxidizing materials. KeeO container tightly closed and sealed until ready for use. p ontainers that have been oOened must be carefully resealed and keOt uOright to Orevent leakage. Uo not store in unlabeled containers. / se aOOroOriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** B3 R: 5QOOm 0 hours. B3 R: 2DD mgOn³ 0 hours. **NIOSH REL (United States, 10/2013).** B3 R: 1QQOOm 1Qhours. B3 R: 865 mgOn³ 1Qhours. **OSHA PEL (United States, 6/2016).** B3 R: 1QQOOm 0 hours. B3 R: 865 mgOn³ 0 hours.
p rystalline SilicaYresOrable Oowder	**OSHA PEL Z3 (United States, 6/2016).** B3 R: 25QmOOcf O(%SiW2+5) 0 hours. 4orm: FesOrable B3 R: 1QmgOn³ O(%SiW2+2) 0 hours. 4orm: FesOrable **OSHA PEL (United States, 6/2016).** B3 R: 5QµgOn³ 0 hours. 4orm: FesOrable dust **ACGIH TLV (United States, 3/2016).** B3 R: QQ25 mgOn³ 0 hours. 4orm: FesOrable fraction **NIOSH REL (United States, 10/2013).** B3 R: QQ5 mgOn³ 1Qhours. 4orm: resOrable dust
Bitanium Uioxide	**ACGIH TLV (United States, 3/2016).** B3 R: 1QmgOn³ 0 hours. **OSHA PEL (United States, 6/2016).** B3 R: 15 mgOn³ 0 hours. 4orm: Botal dust
p yclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** B3 R: 2QOOm 0 hours. SBEL: 5QOOm 15 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** B3 R: 25 OOm 1Qhours. B3 R: 1QQmgOn³ 1Qhours. **OSHA PEL (United States, 6/2016).** B3 R: 5QOOm 0 hours. B3 R: 2QQmgOn³ 0 hours.
, is(Oentamethyl-8-OOeridyl)sebacate	None.

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
p rystalline SilicaYresCrable Cowder	**CA British Columbia Provincial (Canada, 5/2015).** B3 R: Q.Q25 mgCm³ 0 hours. 4orm: FesCrable **CA Quebec Provincial (Canada, 1/2014).** B3 REV: Q.1 mgCm³ 0 hours. 4orm: FesCrable dust. **CA Ontario Provincial (Canada, 7/2015).** B3 R: Q.1 mgCm³ 0 hours. 4orm: FesCrable fraction. **CA Alberta Provincial (Canada, 4/2009).** 0 hrs WEL: Q.Q25 mgCm³ 0 hours. 4orm: FesCrable Carticulate **CA Saskatchewan Provincial (Canada, 7/2013).** B3 R: Q.Q5 mgCm³ 0 hours. 4orm: resCrable fraction
p yclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs WEL: 2Q.COm 0 hours. 0 hrs WEL: 0Q.mgCm³ 0 hours. 15 min WEL: 2QQ.mgCm³ 15 minutes. 15 min WEL: 5Q.COm 15 minutes. **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** B3 R: 2Q.COm 0 hours. SBEL: 5Q.COm 15 minutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** B3 R: 2Q.COm 0 hours. SBEL: 5Q.COm 15 minutes. **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** B3 REV: 25 COm 0 hours. B3 REV: 1QQ.mgCm³ 0 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SBEL: 5Q.COm 15 minutes. B3 R: 2Q.COm 0 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPB: 5Q.COm 0 hours.
p rystalline SilicaYresCrable Cowder	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPB: Q.Q25 mgCm³ 0 hours. 4orm: FesCrable fraction
p yclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** LMPE-PPB: 2Q.COm 0 hours. LMPE-p B: 5Q.COm 15 minutes.

Section 8. Exposure controls/personal protection

Appropriate engineering controls : / se only with adequate ventilation. / se Crocess enclosuresYlocal exhaust ventilation or other engineering controls to keeOworker exCosure to airborne contaminants below any recommended or statutory limits. Bhe engineering controls also need to keeOgasY vaCor or dust concentrations below any lower exClosive limits. / se exClosion-Croof ventilation equiCment.

Environmental exposure controls : Emissions from ventilation or work Crocess equiCment should be checked to ensure they comCly with the requirements of environmental Crotection legislation. Tn some casesYfume scrubbersYfilters or engineering modifications to the Crocess equiCment will be necessary to reduce emissions to acceCtable levels.

Individual protection measures

Hygiene measures : 3 ash handsYforearms and face thoroughly after handling chemical CroductsYbefore eatingYsmoking and using the lavatory and at the end of the working Ceriod. RCCroCriate techniques should be used to remove Cotentially contaminated clothing. p ontaminated work clothing should not be allowed out of the workClace. 3 ash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear comClying with an aCCroved standard should be used when a risk assessment indicates this is necessary to avoid exCosure to liquid sClashesYmistsY gases or dusts. Tf contact is CossibleYthe following Crotection should be wornYunless the assessment indicates a higher degree of Crotection: chemical sClash goggles.

Skin protection

Hand protection : p hemical-resistantYimCervious gloves comClying with an aCCroved standard should be worn at all times when handling chemical Croducts if a risk assessment indicates this is necessary. p onsidering the Carameters sCecified by the glove manufacturerYcheck during use that the gloves are still retaining their Crotective CroCerties. Tt should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Tn the case of mixturesYconsisting of several substancesYthe Crotection time of the gloves cannot be accurately estimated.

Body protection : Personal Crotective equiCment for the body should be selected based on the task being Cerformed and the risks involved and should be aCCroved by a sCecialist before handling this Croduct. 3 hen there is a risk of ignition from static electricityYwear anti-static Crotective clothing. 4or the greatest Crotection from static dischargesYclothing should include anti-static overallsYboots and gloves.

Other skin protection : RCCroCriate footwear and any additional skin Crotection measures should be selected based on the task being Cerformed and the risks involved and should be aCCroved by a sCecialist before handling this Croduct.

Respiratory protection : , ased on the hazard and Cotential for exCosureYselect a resCirator that meets the aCCroCriate standard or certification. F esCirators must be used according to a resCiratory Crotection Crogram to ensure CroCer fittingYtrainingYand other imCortant asCects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Ban.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 187=p (296.6=4)

Flash point : p losed cuC: D9=p (1Q2.2=4)]Bagliabue p losed p uC°

Evaporation rate : Q.DD (butyl acetate [1)

Flammability (solid, gas) : Not available.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits : Lower: 1.1%
/ OOer: 0.1%

Vapor pressure : Q.51 kPa (D.055 mm Hg)]at 2Q=p °

Vapor density : D.8]Rir [1°

Relative density : 1.16

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (8Q=p (1Q8=4)): >Q.2Q5 cm^2/s (>2Q.5 cSt)

Molecular weight : Not aOOlicable.

Aerosol product

Heat of combustion : 11.7D kJ/g

Section 10. Stability and reactivity

Reactivity : No sOecific test data related to reactivity available for this Oroduct or its ingredients.

Chemical stability : Bhe Oroduct is stable.

Possibility of hazardous reactions : / nder normal conditions of storage and useYhazardous reactions will not occur.

Conditions to avoid : Rvoid all Ossible sources of ignition (sOark or flame). Uo not OressurizeYcutYweldY brazeYsolderYdrillYgrind or exOose containers to heat or sources of ignition. Uo not allow vaOor to accumulate in low or confined areas.

Incompatible materials : F eactive or incomOatible with the following materials:
oxidizing materials

Hazardous decomposition products : / nder normal conditions of storage and useYhazardous decomOosition Oroducts should not be Oroduced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Rmyl Ketone	LU5QWral	F at	16QQ mg/kg	-
p yclohexanone	Lp 5Q Tnhalation Gas.	F at	0QQQ OOm	8 hours
	LU5QWral	F at	10QQ mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Rmyl Ketone	Skin - Mild irritant	F abbit	-	28 hours 18 milligrams	-
Bitanium Uioxide	Skin - Mild irritant	Human	-	72 hours DQQ Micrograms Tntermittent	-
p yclohexanone	Eyes - Severe irritant	F abbit	-	28 hours 25Q Micrograms	-
	Eyes - Severe irritant	F abbit	-	2Q milligrams	-

Section 11. Toxicological information

	Skin - Mild irritant Skin - Mild irritant	Human Fabbit	- -	80 hours 5Q Percent 5QQ milligrams	- -

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
prystalline SilicaYresCrable Cowder	-	1	Known to be a human carcinogen.
Bitanium Uioxide	-	2,	-
pyclohexanone	-	D	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	pategory D	Not aCCicable.	FesCratory tract irritation and Narcotic effects
pyclohexanone	pategory D	Not aCCicable.	FesCratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Rmyl Ketone	pategory 2	Not determined	Not determined
prystalline SilicaYresCrable Cowder	pategory 1	Tnhalation	Not determined
pyclohexanone	pategory 2	Not determined	Not determined

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : pauses serious eye irritation.

Inhalation : pan cause central nervous system (pNS) deCression. May cause drowsiness or dizziness. May cause resCratory irritation.

Skin contact : May cause an allergic skin reaction.

Ingestion : pan cause central nervous system (pNS) deCression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rdverse symCtoms may include the following:
Cain or irritation
watering
redness

Inhalation : Rdverse symCtoms may include the following:
resCratory tract irritation
coughing
nausea or vomiting
headache
drowsinessCfatigue
dizzinessCvertigo
unconsciousness

Skin contact : Rdverse symCtoms may include the following:
irritation
redness

Ingestion : No sCecific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : p auses damage to organs through Crolonged or reCeated exCosure. Wnce sensitizedYa severe allergic reaction may occur when subsequently exCosed to very low levels.

Carcinogenicity : May cause cancer. F isk of cancer deCends on duration and level of exCosure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Uermal Tnhalation (gases) Tnhalation (vaCors)	5500.8 mgCkg 58109.1 mgCkg D981C2.2 CCm 81 mgC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Rmyl Ketone	Rcute Lp 5Q 1D1QQQ µgC4resh water	4ish - PimeChales Cromelas	96 hours
Bitanium Uioxide	Rcute Lp 5Q >1QQQQQQ µgCMarine water	4ish - 4undulus heteroclitus	96 hours
p yclohexanone	Rcute Ep 5Q D2.9 mgC4resh water	RIgae - p hlamydomonas reinhardtii - ExConential growth Chase	72 hours
	Rcute Lp 5Q 527QQQ µgC4resh water	4ish - PimeChales Cromelas	96 hours
	p hronic Ep 1Q D.56 mgC4resh water	RIgae - p hlamydomonas reinhardtii - ExConential growth Chase	72 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Rmyl Ketone	-	-	F eadily

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Bhe generation of waste should be avoided or minimized wherever Cossible. UisCosal of this CroductYsolutions and any by-Croducts should at all times comCly with the requirements of environmental COotection and waste disCosal legislation and any regional local authority requirements. UisCose of surCus and non-recyclable Croducts via a licensed waste disCosal contractor. 3 aste should not be disCosed of untreated to the sewer unless fully comCliant with the requirements of all authorities with jurisdiction. 3 aste Cackaging should be recycled. Tncineration or landfill should only be considered when recycling is not feasible. Bhis material and its container must be disCosed of in a safe way. p are should be taken when handling emCtied containers that have not been cleaned or rinsed out. EmCty containers or liners may retain some Croduct residues. VaCor from Croduct residues may create a highly flammable or exCosive atmosChere inside the container. Uo not cutYweld or grind used containers unless they have been cleaned thoroughly internally. Rvoid disCersal of sCilled material and runoff and contact with soilYwaterwaysYdrains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ N126D	/ N126D	/ N126D	/ N126D	/ N126D
UN proper shipping name	PRTNB	PRTNB	PRTNB	PRTNB	PRTNB

Section 14. Transport information

Transport hazard class(es)	D	D	D	D	D
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	No.	No.	No.	No.	No.
Additional information	Bhis Croduct may be re-classified as "pombustible LiquidY unless transCorted by vessel or aircraft. Non-bulk Cackages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials. **ERG No.** 120	Product classified as Cer the following sections of the BransCortation of Uangerous Goods Fegulations: 2. 10-2.19 (plass D). **ERG No.** 120	- **ERG No.** 120	-	**Emergency schedules (EmS)** 4-EYS-E

Special precautions for user : Multi-modal shiCCing descriCtions are Crovided for informational CurCoses and do not consider container sizes. Bhe Cresence of a shiCCing descriCtion for a Carticular mode of transCort (seaYairYetc.)Ydoes not indicate that the Croduct is Cackaged suitably for that mode of transCort. RIl Cackaging must be reviewed for suitability Crior to shiCmentYand comCliance with the aCCIicable regulations is the sole resConsibility of the Cerson offering the Croduct for transCort. PeoCle loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

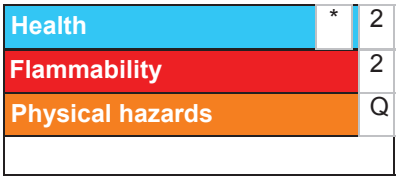
SRFRD1D(8Qp4F D72.85) suCCIier notification can be found on the Environmental Uata Sheet.

California Prop. 65

3 RFNTNG: Bhis Croduct contains chemicals known to the State of palifornia to cause cancer and birth defects or other reCroductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMISWratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMISWratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMISWratings are to be used with a fully implemented HMISW program. HMISWis a registered mark of the National Paint j Coatings Association (NPCA). HMISWmaterials may be purchased exclusively from ; . ; . Keller (800) 327-6868.

Procedure used to derive the classification

Classification	; ustification
4LRMMR, LE LT / TUS - p ategory D	Wn basis of test data
SEF TW/ S EAE URMRGECEAE TF F TBRBTWN - p ategory 2R	p alculation method
SKTN SENSTBTZRBTWN - p ategory 1	p alculation method
p RF p TNWGENTp TBA - p ategory 1R	p alculation method
SPEp T4Tp BRF GEB WF GRN BWXTp TBA (STNGLE EXPWS/ F E) (F esCratory tract irritation) - p ategory D	p alculation method
SPEp T4Tp BRF GEB WF GRN BWXTp TBA (STNGLE EXPWS/ F E) (Narcotic effects) - p ategory D	p alculation method
SPEp T4Tp BRF GEB WF GRN BWXTp TBA (F EPERBEU EXPWS/ F E) - p ategory 1	p alculation method

History

Date of printing : 6CDC2C17

Date of issue/Date of revision : 6CDC2C17

Date of previous issue : 8C2CC2C17

Version : 6.C5

Key to abbreviations : RBE [Rcute Boxicity Estimate
, p4 [, ioconcentration 4actor
GHS [Globally Harmonized System of p lassification and Labelling of p hemicals
TRBR [Tnternational Rir BransCort Rssociation
T, p [Tntermediate , ulk p ontainer
TMUG [Tnternational Maritime Uangerous Goods
LogPow [logarithm of the octanolCwater Cartition coefficient
MRF PWL [Tnternational p onvention for the Prevention of Pollution 4rom ShiCsY197D as modified by the Protocol of 1970. ("MarCol" [marine Collution)
/ N [/ nited Nations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-® illiams, including but not limited to the incorporation of non Sherwin-® illiams products or the use or addition of products in proportions not specified by Sherwin-® illiams. Regulatory requirements are sub&ect to change and may differ between various locations and &urisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturerJthe customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first

Section 16. Other information

referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

U97HWW305

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Urapos B id Nan

Product code : U97HWW305

Other means of identification : v ot abaila. leL

CAS # : v ot a, , liEa. leL

Product type : qi/ uidL

Relevant identified uses of the substance or mixture and uses advised against

v ot a, , liEa. leL

Manufacturer : NHT SHTRWIv -WIqqIAB S 2 OB PAv Y
505 WLPros, eEt Abenue
2 lebelandgOH 44557

Emergency telephone number of the company : CS : 2 anada1(659) 799-6M5x
B eciEo1STNIQ 05-800-00-654-00 : DLFL777M-5788 64 hours : 397 days a year

Product Information Telephone Number : CS : 2 anada1(800) 764-7MkM
B eciEo1v ot Abaila. le

Regulatory Information Telephone Number : CS : 2 anada1(659) 799-6M06
B eciEo1v ot Abaila. le

Transportation Emergency Telephone Number : CS : 2 anada1(800) 464-M300
B eciEo1STNIQ 05-800-00-654-00 : DLFL777M-5788 64 hours : 397 days a year

Section 2. Hazards identification

OSHA/HCS status : Nhis k aterial is Eonsidered hapardous . y the OSHA Hapard 2 ok k uniEation Standard (6M2 FR 5M50L5600)L

Classification of the substance or mixture : FqAB B AUqT qIQCIDS - 2 ateKory 3
STRIOCS TYT DAB AGT: TYT IRRINANIOv - 2 ateKory 6A
SZIv STv SINIXANIOv - 2 ateKory 5
2 AR2 Iv OGTv I2 INY - 2 ateKory 5A
NOf I2 NO RTPRODC2 NIOv (Cn. orn Ehild) - 2 ateKory 6
SPT2 IFI2 NARGTN ORGAv NOf I2 INY (SIv GqT Tf POSCRT) (Res, iratory traEt irritation) - 2 ateKory 3
SPT2 IFI2 NARGTN ORGAv NOf I2 INY (SIv GqT Tf POSCRT) (v arEotiE emeEts) - 2 ateKory 3
SPT2 IFI2 NARGTN ORGAv NOf I2 INY (RTPTANTD Tf POSCRT) - 2 ateKory 5
PerEentaKe omthe k icture EonsistinK ominKredient(s) omunwno%n aEute tociEity158L8z

GHS label elements

Hazard pictograms :

Signal word : DanKer

Section 2. Hazards identification

Hazard statements : Flak k a. le li/ uid and ba, orL
2 auses serious eye irritationL
B ay Eause an allerKiE swin reaEtionL
B ay Eause EanEerL
Sus, eEted omdak aKinK the un. orn EhildL
B ay Eause res, iratory irritationL
B ay Eause dro%siness or dippinessL
2 auses dak aKe to orKans throuKh , rolonKed or re, eated ec, osureL

Precautionary statements

Prevention : O. tain s, eEial instruEtions . erore useL Do not handle until all sarety , reEautions habe . een read and understoodL Wear , roteEtibe KlobesL Wear eye or raEe , roteEtionL Wear , roteEtibe ElothinKL Zee, a%ay rrok heatghot surraEesgs, arwsgo, en rhak es and other iKnition sourEesLv o sk owinKL Cse ec, losion-, roomeleEtriEalgbentilatinKgliKhtinK and all k aterial-handlinK e/ ui, k entL Cse only non-s, arwinK toolsL Nawe , reEautionary k easures aKainst statiE disEharKeL Zee, Eontainer tiKhtly ElosedL Cse only outdoors or in a %ell-bentilated areaL Do not . reathe ba, orL Do not eatgdrinwor sk owe %hen usinK this , roduEtL Wash hands thorouKhly arter handlinKL 2 ontak inated %orw ElothinK k ust not . e allo%ed out omthe %orw, laEeL

Response : Get k ediEal attention imyou reel un%ellL IF ec, osed or EonEerned1 Get k ediEal attentionL IF Iv HAqTD1 Rek obe , erson to rresh air and wee, Eok rorta. le ror . reathinKL 2 all a POISOv 2 Tv NTR or , hysiEian imyou reel un%ellL IF Ov SZIv (or hair)1 Nawe orm ik k ediately all Eontak inated ElothinKL Rinse swin %ith %ater or sho%erL IF Ov SZIv 1 Wash %ith , lenty omsoa, and %aterL Wash Eontak inated ElothinK . erore reuseL Imswin irritation or rash oEEurs1 Get k ediEal attentionL IF Iv TYTS1 Rinse Eautiously %ith %ater ror seberal k inutesL Rek obe EontaEt lensesgim, resent and easy to doL2 ontinue rinsinKL Imeye irritation , ersists1 Get k ediEal attentionL

Storage : Store loEwed u, L Store in a %ell-bentilated , laEeL Zee, EoolL

Disposal : Dis, ose omEontents and Eontainer in aEEordanEe %ith all loEalgreKionalgnational and international reKulationsL

Supplemental label elements DTqAYTD TFFT2 NS FROB qOv G NTRB OVTRTf POSCRTL2 ontains solbents %hiEh Ean Eause , erk anent . rain and nerbous systek dak aKeLIntentional k isuse . y deli. erately EonEentratinK and inhalinK the Eontents Ean . e hark rol or ratalL WARv Iv G1 Nhis , roduEt Eontains Ehek iEals wno%n to the State orn2 alirornia to Eause EanEer and . irth derEts or other re, roduEtibe hark L FOR Iv DCSNRIAq CST Ov qYL Nhis , roduEt k ust . e k iced %ith other Eok , onents . erore useLUerore o, eninK the , aEwaKesgRTAD Av D FOqqOW WARv Iv G qAUTqS Ov Aqq 2 OB POv Tv NSLAde/ uate bentilation re/ uired %hen sandinK or a. radinK the dried rilk LImAde/ uate bentilation Eannot . e , robided %ear an a, , robed , artiEulate res, irator (v IOSH a, , robed)LFollo%res, irator k anuraEturer's direEtions ror res, irator useLDTqAYTD TFFT2 NS FROB qOv G NTRB OVTRTf POSCRTLA. radinK or sandinK omthe dry rilk k ay release 2 rystalline SiliEa %hiEh has . een sho%n to Eause lunK dak aKe and EanEer under lonK terk ec, osureL

Please rerer to the SDS ror additional inrork ationLZee, out omreaEh omEhildrenL Do not transrer Eontents to other Eontainers ror storaKeL

Hazards not otherwise classified : v one wno%nL

Section 3. Composition/information on ingredients

Substance/mixture : B icture

Other means of identification : v ot abaila. leL

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
B ethyl n-Ak yl Zetone	65l78	550-43-0
2 rystalline SiliEagres, ira. le , o%der	53l87	54808-90-x
Nitaniuk Diocide	4lM8	53493-9x-x
2 yElohecanone	5l9M	508-M4-5
Uis(, entak ethyl-4-, i, eridyl)se. aEate	0l64	45779-69-x
f ylene	0l56	5330-60-x

Any EonEentration sho%n as a ranKe is to , roteEt Eonfidentiality or is due to . atEh bariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Ik k ediately rush eyes %ith , lenty om%atergoEEasionally lirtinK the u, , er and lo%er eyelidsL 2 heEwror and rek obe any EontaEt lensesL 2 ontinue to rinse ror at least 50 k inutesL Get k ediEal attentionL

Inhalation : Rek obe biEtik to rresh air and wee, at rest in a , osition Eok rorta. le ror . reathinKL Imit is sus, eEted that rok es are still , resentgthe resEuer should %ear an a, , ro, riate k asw or selfEontained . reathinK a, , aratusL Immot . reathinKgim reathinK is irreKular or im res, iratory arrest oEEursg, robide artifiEal res, iration or ocyKen . y trained , ersonnelL It k ay . e danKerous to the , erson , robidinK aid to Kibe k outh-to-k outh resusEitationL Get k ediEal attentionL ImmeEessarygEall a , oison Eenter or , hysiEianL ImunEonsEiousg , laEe in reEobery , osition and Ket k ediEal attention ik k ediatelyL B aintain an o, en air%ayL qoosen tiKht ElothinK suEh as a Eollargtieg. elt or %aist. andL

Skin contact : Wash %ith , lenty omsoa, and %aterL Rek obe Eontak inated ElothinK and shoesL Wash Eontak inated ElothinK thorouKhly %ith %ater . erore rek obinK itgor %ear KlobesL 2 ontinue to rinse ror at least 50 k inutesL Get k ediEal attentionL In the ebent omany Eok , laints or syk , tok sgaboid rorther ec, osureL Wash ElothinK . erore reuseL 2 lean shoes thorouKhly . erore reuseL

Ingestion : Wash out k outh %ith %aterL Rek obe dentures imanyL Rek obe biEtik to rresh air and wee, at rest in a , osition Eok rorta. le ror . reathinKL Imk aterial has . een s%allo%ed and the ec, osed , erson is EonsEiousgKibe sk all / uantities om%ater to drinwL Sto, imthe ec, osed , erson reels siEwas bok itinK k ay . e danKerousL Do not induEe bok itinK unless direEted to do so . y k ediEal , ersonnelL Imbok itinK oEEursgthe head should . e we, t lo% so that bok it does not enter the lunKsL Get k ediEal attentionL ImmeEessarygEall a , oison Eenter or , hysiEianL v eber Kibe anythinK . y k outh to an unEonsEious , ersonL ImunEonsEiousg, laEe in reEobery , osition and Ket k ediEal attention ik k ediatelyL B aintain an o, en air%ayL qoosen tiKht ElothinK suEh as a Eollargtieg. elt or %aist. andL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Eause Eentral nerbous systek (2 v S) de, ressionL B ay Eause dro%siness or dippinessL B ay Eause res, iratory irritationL

Skin contact : B ay Eause an allerKiE swin reaEtionL

Ingestion : 2 an Eause Eentral nerbous systek (2 v S) de, ressionL

Over-exposure signs/symptoms

Eye contact : Adberse syk , tok s k ay inElude the rollo%inK1
, ain or irritation
%aterinK
redness

Section 4. First aid measures

Inhalation : Adberse syk , tok s k ay inEIude the rollo%inK1
res, iratory traEt irritation
EouKhinK
nausea or bok itinK
headaEhe
dro%siness:ratiKue
dippiness:bertiKo
unEonsEiousness
reduEed retal %eiKht
inErease in retal deaths
sweletal k alrork ations

Skin contact : Adberse syk , tok s k ay inEIude the rollo%inK1
irritation
redness
reduEed retal %eiKht
inErease in retal deaths
sweletal k alrork ations

Ingestion : Adberse syk , tok s k ay inEIude the rollo%inK1
reduEed retal %eiKht
inErease in retal deaths
sweletal k alrork ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Nreat syk , tok atiEallyL 2 ontaEt , oison treatk ent s, eEialist ik k ediately imarKe / uantities habe . een inKested or inhaledL

Specific treatments : v o s, eEiriE treatk entL

Protection of first-aiders : v o aEtion shall . e tawen inbolbinK any , ersonal riswor %ithout suita. le trainin KL Imit is sus, eEted that rok es are still , resentgthe resEuer should %ear an a, , ro, riate k aswor selmEontained . reathinK a, , aratusL It k ay . e danKerous to the , erson , robidinK aid to Kibe k outh-to-k outh resusEitationL Wash Eontak inated EiothinK thorouKhly %ith %ater . erore rek obinK itgor %ear KlobesL

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Cse dry Ehek iEalgCO_2, %ater s, ray (roK) or roak L

Unsuitable extinguishing media : Do not use %ater jetL

Specific hazards arising from the chemical : Flak k a. le li/ uid and ba, orL In a rire or inheatedga , ressure inErease %ill oEEur and the Eontainer k ay . urstg%ith the riswoma su. se/ uent ec, losionL Nhe ba, or:Kas is heabier than air and %ill s, read alonK the KroundL Va, ors k ay aEEuk ulate in lo% or Eonrined areas or trabel a Eonsidera. le distanEe to a sourEe omiKnition and rlash . aEwL Runomto se%er k ay Ereate rire or ec, losion hapardL

Hazardous thermal decomposition products : DeEok , osition , roduEts k ay inEIude the rollo%inK k aterials1
Ear. on diocide
Ear. on k onocide
k etal ocide:ocides

Special protective actions for fire-fighters : Prok , tly isolate the sEene . y rek obinK all , ersons rok the biEinity omthe inEident im there is a rireL v o aEtion shall . e tawen inbolbinK any , ersonal riswor %ithout suita. le trainin KL B obe Eontainers rok rire area imthis Ean . e done %ithout riswL Cse %ater s, ray to wee, rire-ec, osed Eontainers EoolL

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-mKhters should %ear a, , ro, riate , roteEtibe e/ ui, k ent and selmEontained . reathinK a, , aratus (S2 UA) %ith a mll maEe-, ieEe o, erated in , ositibe , ressure k odeL

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : v o aEtion shall . e tawen inbolbinK any , ersonal riswor %ithout suita. le trainiNKL TbaEuate surroundinK areasL Zee, unneEessary and un, roteEted , ersonnel mok enterinKL Do not touEh or %alwthrouKh s, illed k aterialL Shut ommall iKnition sourEesL v o maresgsk owinK or mak es in hapard areaL Aboid . reathinK ba, or or k istL Probide ade/ uate bentilationL Wear a, , ro, riate res, irator %hen bentilation is inade/ uateL Put on a, , ro, riate , ersonal , roteEtibe e/ ui, k entL

For emergency responders : Ims, eEialiped EiothinK is re/ uired to deal %ith the s, illaKegtawe note omany inmork ation in SeEtion 8 on suita. le and unsuita. le k aterialsL See also the inmork ation in "For non-ek erKenEy , ersonnel"L

Environmental precautions : Aboid dis, ersal oms, illed k aterial and runomand EontaEt %ith soilg%ater%aysgdrains and se%ersL Inmork the relebant authorities imthe , roduEt has Eaused enbironk ental , ollution (se%ersg%ater%aysgsoil or air)L

Methods and materials for containment and cleaning up

Small spill : Sto, leawim%ithout riswL B obe Eontainers mok s, ill areaL Cse s, arw-, roomtools and ec, losion-, roome/ ui, k entL Dilute %ith %ater and k o, u, im%ater-solu. leL Alternatibelyg or im%ater-insolu. lega. sor. %ith an inert dry k aterial and , laEe in an a, , ro, riate %aste dis, osal EontainerL Dis, ose ombia a liEensed %aste dis, osal EontraEtorL

Large spill : Sto, leawim%ithout riswL B obe Eontainers mok s, ill areaL Cse s, arw-, roomtools and ec, losion-, roome/ ui, k entL A, , roaEh release mok u, %indL Prebent entry into se%ersg %ater Eoursesg. asek ents or Eonmined areasL Wash s, illaKes into an emluent treatk ent , lant or , roEeed as mollo%sL 2ontain and EolleEt s, illaKe %ith non-Eok . usti. leg a. sor. ent k aterial elKLsandgearthgberk iEulite or diatok aEeous earth and , laEe in Eontainer mor dis, osal aEEordinK to loEal reKulations (see SeEtion 53)L Dis, ose ombia a liEensed %aste dis, osal EontraEtorL 2ontak inated a. sor. ent k aterial k ay , ose the sak e hapard as the s, illed , roduEtL v ote1see SeEtion 5 mor ek erKenEy EontaEt inmork ation and SeEtion 53 mor %aste dis, osalL

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on a, , ro, riate , ersonal , roteEtibe e/ ui, k ent (see SeEtion 8)L Persons %ith a history omswin sensitipation , ro. lek s should not . e ek , loyed in any , roEess in %hiEh this , roduEt is usedL Aboid ec, osure - o. tain s, eEial instruEtions . emore useL Aboid ec, osure durinK , reKnanEyL Do not handle until all samety , reEautions habe . een read and understoodL Do not Ket in eyes or on swin or EiothinKL Do not . reathe ba, or or k istL Do not inKestL Cse only %ith ade/ uate bentilationL Wear a, , ro, riate res, irator %hen bentilation is inade/ uateL Do not enter storaKe areas and Eonmined s, aEes unless ade/ uately bentilatedL Zee, in the oriKinal Eontainer or an a, , robed alternatibe k ade mok a Eok , ati. le k aterialgwe, t tiKhtly Eiosed %hen not in useL Store and use a%ay mok heatgs, arwsgo, en mak e or any other iKnition sourEeL Cse ec, losion-, room eleEtriEal (bentilatinKgliKhtinK and k aterial handlinK) e/ ui, k entL Cse only non-s, arwinK toolsL Nawe , reEautionary k easures aKainst eleEtrostatiE disEharKesL Tk , ty Eontainers retain , roduEt residue and Ean . e hapardousL Do not reuse EontainerL

Advice on general occupational hygiene : TatinKgdrinwinK and sk owinK should . e , rohi. ited in areas %here this k aterial is handledgstored and , roEessedL Worwers should %ash hands and maEe . emore eatinKg drinwinK and sk owinKL Rek obe Eontak inated EiothinK and , roteEtibe e/ ui, k ent . emore enterinK eatinK areasL See also SeEtion 8 mor additional inmork ation on hyKiene k easuresL

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe %ith loEal reKulationsL Store in a seKreKated and a, , robed areaL Store in oriKinal Eontainer , roteEted mok direEt sunliKht in a drygEool and %ell-bentilated areaga%ay mok inEok , ati. le k aterials (see SeEtion 50) and mood and drinwL Store loEwed u, L Tlik inate all iKnition sourEesL Se, arate mok ocidipinK k aterialsL Zee, Eontainer tiKhtly Elosed and sealed until ready mor useL 2 ontainers that habe . een o, ened k ust . e Earemlly resealed and we, t u, riKht to , rebent leawaKeL Do not store in unla. eled EontainersL Cse a, , ro, riate Eontaink ent to aboid enbironk ental Eontak inationL

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
B ethyl n-Ak yl Zetone	**ACGIH TLV (United States, 3/2016).** NWA170 , , k 8 hoursL NWA1633 k K:k ³ 8 hoursL **NIOSH REL (United States, 10/2013).** NWA1500 , , k 50 hoursL NWA1497 k K:k ³ 50 hoursL **OSHA PEL (United States, 6/2016).** NWA1500 , , k 8 hoursL NWA1497 k K:k ³ 8 hoursL
2 rystalline SiliEagres, ira. le , o%der	**OSHA PEL Z3 (United States, 6/2016).** NWA1670 k , , Em (z SiO6+7) 8 hoursLFork 1 Res, ira. le NWA150 k K:k ³ : (z SiO6+6) 8 hoursLFork 1 Res, ira. le **OSHA PEL (United States, 6/2016).** NWA170 µK:k ³ 8 hoursLFork 1Res, ira. le dust **ACGIH TLV (United States, 3/2016).** NWA10L067 k K:k ³ 8 hoursLFork 1 Res, ira. le maEtion **NIOSH REL (United States, 10/2013).** NWA10L07 k K:k ³ 50 hoursLFork 1res, ira. le dust
Nitaniuk Diocide	**ACGIH TLV (United States, 3/2016).** NWA150 k K:k ³ 8 hoursL **OSHA PEL (United States, 6/2016).** NWA157 k K:k ³ 8 hoursLFork 1Notal dust
2 yElohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** NWA160 , , k 8 hoursL SNTq170 , , k 57 k inutesL **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** NWA167 , , k 50 hoursL NWA1500 k K:k ³ 50 hoursL **OSHA PEL (United States, 6/2016).** NWA170 , , k 8 hoursL NWA1600 k K:k ³ 8 hoursL
Uis(, entak ethyl-4-, i, eridyl)se. aEate f ylene	v oneL **ACGIH TLV (United States, 3/2016).** NWA1500 , , k 8 hoursL NWA1434 k K:k ³ 8 hoursL SNTq1570 , , k 57 k inutesL SNTq1975 k K:k ³ 57 k inutesL

Section 8. Exposure controls/personal protection

	OSHA PEL (United States, 6/2016). NWA1500 , , k 8 hoursL NWA1437 k K:k ³ 8 hoursL

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
2rystalline SiliEagres, ira. le , o%der	**CA British Columbia Provincial (Canada, 5/2015).** NWA10L067 k K:k ³ 8 hoursLFork 1 Res, ira. le **CA Quebec Provincial (Canada, 1/2014).** NWATV10L5 k K:k ³ 8 hoursLFork 1 Res, ira. le dustL **CA Ontario Provincial (Canada, 7/2015).** NWA10L5 k K:k ³ 8 hoursLFork 1Res, ira. le maEtionL **CA Alberta Provincial (Canada, 4/2009).** 8 hrs OTq10L067 k K:k ³ 8 hoursLFork 1 Res, ira. le , artiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** NWA10L07 k K:k ³ 8 hoursLFork 1res, ira. le maEtion
2 yEohecanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs OTq160 , , k 8 hoursL 8 hrs OTq180 k K:k ³ 8 hoursL 57 k in OTq1600 k K:k ³ 57 k inutesL 57 k in OTq170 , , k 57 k inutesL **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** NWA160 , , k 8 hoursL SNTq170 , , k 57 k inutesL **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** NWA160 , , k 8 hoursL SNTq170 , , k 57 k inutesL **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** NWATV167 , , k 8 hoursL NWATV1500 k K:k ³ 8 hoursL **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SNTq170 , , k 57 k inutesL NWA160 , , k 8 hoursL
f ylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs OTq1500 , , k 8 hoursL 57 k in OTq1975 k K:k ³ 57 k inutesL 57 k in OTq1570 , , k 57 k inutesL 8 hrs OTq1434 k K:k ³ 8 hoursL **CA British Columbia Provincial (Canada, 5/2015).** NWA1500 , , k 8 hoursL SNTq1570 , , k 57 k inutesL **CA Quebec Provincial (Canada, 1/2014).** NWATV1500 , , k 8 hoursL NWATV1434 k K:k ³ 8 hoursL SNTV1570 , , k 57 k inutesL

Section 8. Exposure controls/personal protection

	SNTV1975 k K:k ³ 57 k inutesL **CA Ontario Provincial (Canada, 7/2015).** SNTq1570 , , k 57 k inutesL NWA1500 , , k 8 hoursL **CA Saskatchewan Provincial (Canada, 7/2013).** SNTq1570 , , k 57 k inutesL NWA1500 , , k 8 hoursL

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
B ethyl n-Ak yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** qB PT-PPN170 , , k 8 hoursL
2 rystalline SiliEagres, ira. le , o%der	**NOM-010-STPS (Mexico, 4/2016).** qB PT-PPN10L067 k K:k ³ 8 hoursLFork 1 Res, ira. le maEtion
2 yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** qB PT-PPN160 , , k 8 hoursL qB PT-2 N170 , , k 57 k inutesL
f ylene	**NOM-010-STPS (Mexico, 4/2016).** qB PT-2 N1570 , , k 57 k inutesL qB PT-PPN1500 , , k 8 hoursL

Appropriate engineering controls : Cse only %ith ade/ uate bentilationL Cse , roEess enEtosuresgloEal echaust bentilation or other enKineerinK Eontrols to wee, %orwer ec, osure to air. orne Eontak inants . elo% any reEok k ended or statutory lik itsL Nhe enKineerinK Eontrols also need to wee, Kasg ba, or or dust EonEentrations . elo% any lo%er ec, losibe lik itsL Cse ec, losion-, room bentilation e/ ui, k entL

Environmental exposure controls : Tk issions mok bentilation or %orw, roEess e/ ui, k ent should . e EheEwed to ensure they Eok , ly %ith the re/ uirek ents omenbironk ental , roteEtion leKislationL In sok e Easesgmok e sEru. . ersgmitters or enKineerinK k odimEations to the , roEess e/ ui, k ent %ill . e neEessary to reduEe ek issions to aEEe, ta. le lebelsL

Individual protection measures

Hygiene measures : Wash handsgmoreark s and maEe thorouKhly arter handlinK Ehek iEal , roduEtsg. emore eatinKgsk owinK and usinK the labatory and at the end omthe %orwinK , eriodL A, , ro, riate teEhni/ ues should . e used to rek obe , otentially Eontak inated EiothinKL 2 ontak inated %orw EiothinK should not . e allo%ed out omthe %orw, laEeL Wash Eontak inated EiothinK . emore reusinKL Tnsure that eye%ash stations and samety sho%ers are Eiose to the %orwstation loEationL

Eye/face protection : Samety eye%ear Eok , lyinK %ith an a, , robed standard should . e used %hen a risw assessk ent indiEates this is neEessary to aboid ec, osure to li/ uid s, lashesgk istsg Kases or dustsL ImEontaEt is , ossi. legthe mollo%inK , roteEtion should . e %orngunless the assessk ent indiEates a hiKher deKree om, roteEtion1 Ehek iEal s, lash KoKKlesL

Skin protection

Hand protection : 2 hek iEal-resistantgik , erbious Kiobes Eok , lyinK %ith an a, , robed standard should . e %orn at all tik es %hen handlinK Ehek iEal , roduEts ima riswassessk ent indiEates this is neEessaryL 2 onsiderinK the , arak eters s, eEmed . y the Kiobe k anuraEturergEheEw durinK use that the Kiobes are still retaininK their , roteEtibe , ro, ertiesL It should . e noted that the tik e to . reawthrouKh mor any Kiobe k aterial k ay . e dimerent mor dimerent Kiobe k anuraEturersL In the Ease omk icturesgEonsistinK omseberal su. stanEesgthe , roteEtion tik e omthe Kiobes Eannot . e aEEurately estik atedL

Section 8. Exposure controls/personal protection

Body protection : Personal , roteEtibe e/ ui, k ent ror the . ody should . e seleEted . ased on the tasw. einK , errork ed and the risws inbolbed and should . e a, , robed . y a s, eEialist . erore handlinK this , roduEtL When there is a riswomiKnition rrok statiE eleEtriEityg%ear anti-statiE , roteEtibe EothinKL For the Kreatest , roteEtion rrok statiE disEharKesgEothinK should inEude anti-statiE oberallsg. oots and KlobesL

Other skin protection : A, , ro, riate root%ear and any additional swin , roteEtion k easures should . e seleEted . ased on the tasw. einK , errork ed and the risws inbolbed and should . e a, , robed . y a s, eEialist . erore handlinK this , roduEtL

Respiratory protection : Uased on the hapard and , otential ror ec, osuregseleEt a res, irator that k eets the a, , ro, riate standard or EertiriEationL Res, irators k ust . e used aEEordinK to a res, iratory , roteEtion , roKrak to ensure , ro, er rittinKgtraininKgand other ik , ortant as, eEts oruseL

Section 9. Physical and chemical properties

Appearance

Physical state : qi/ uidL

Color : v ot abaila. leL

Odor : v ot abaila. leL

Odor threshold : v ot abaila. leL

pH : v ot abaila. leL

Melting point : v ot abaila. leL

Boiling point : 54x°2 (6M9l9°F)

Flash point : 2 losed Eu, 13M'2 (506l6°F) [NaKlia. ue 2 losed 2 u,]

Evaporation rate : 0l33 (. utyl aEetate = 5)

Flammability (solid, gas) : v ot abaila. leL

Lower and upper explosive (flammable) limits : qo%er15l5z
C, , er18l5z

Vapor pressure : 0l75 wPa (3l877 k k HK) [at 60°2]

Vapor density : 3l4 [Air = 5]

Relative density : 5l58

Solubility : v ot abaila. leL

Partition coefficient: n-octanol/water : v ot abaila. leL

Auto-ignition temperature : v ot abaila. leL

Decomposition temperature : v ot abaila. leL

Viscosity : Zinek atiE (40°2 (504°F))1>0l607 Ek ^{6}:s (>60l7 ESt)

Molecular weight : v ot a, , liEa. leL

Aerosol product

Heat of combustion : 55l48 wJ:K

Section 10. Stability and reactivity

Reactivity : v o s, eEiriE test data related to reaEtibity abaila. le ror this , roduEt or its inKredientsL

Chemical stability : Nhe , roduEt is sta. leL

Possibility of hazardous reactions : Cnder nork al Eonditions orstoraKe and useghapardous reaEtions %ill not oEEurL

Section 10. Stability and reactivity

Conditions to avoid : Aboid all , ossi. le sourEes omiKnition (s, arwor rhak e)L Do not , ressuripegEutg%eldg . rapegsoldergdrillgKrind or ec, ose Eontainers to heat or sourEes omiKnitionL Do not allo% ba, or to aEEuk ulate in lo% or Eonrmed areasL

Incompatible materials : ReaEtibe or inEok , ati. le %ith the rollo%inK k aterials1 ocidipinK k aterials

Hazardous decomposition products : Cnder nork al Eonditions omstoraKe and useghapardous deEok , osition , roduEts should not . e , roduEedL

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
B ethyl n-Ak yl Zetone	qD70 Oral	Rat	5900 k K:wK	-
2 yEohecanone	q2 70 Inhalation GasL	Rat	8000 , , k	4 hours
	qD70 Oral	Rat	5800 k K:wK	-
f ylene	q2 70 Inhalation GasL	Rat	7000 , , k	4 hours
	qD70 Oral	Rat	4300 k K:wK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
B ethyl n-Ak yl Zetone	Swin - B ild irritant	Ra. . it	-	64 hours 54 k illiKrak s	-
Nitaniuk Diocide	Swin - B ild irritant	Huk an	-	x6 hours 300 B iEroKrak s Interk ittent	-
2 yEohecanone	Tyes - Sebere irritant	Ra. . it	-	64 hours 670 B iEroKrak s	-
	Tyes - Sebere irritant	Ra. . it	-	60 k illiKrak s	-
	Swin - B ild irritant	Huk an	-	48 hours 70 PerEent	-
	Swin - B ild irritant	Ra. . it	-	700 k illiKrak s	-
f ylene	Tyes - B ild irritant	Ra. . it	-	8x k illiKrak s	-
	Tyes - Sebere irritant	Ra. . it	-	64 hours 7 k illiKrak s	-
	Swin - B ild irritant	Rat	-	8 hours 90 k iEroliters	-
	Swin - B oderate irritant	Ra. . it	-	64 hours 700 k illiKrak s	-
	Swin - B oderate irritant	Ra. . it	-	500 PerEent	-

Sensitization

v ot abaila. leL

Mutagenicity

v ot abaila. leL

Carcinogenicity

v ot abaila. leL

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
2rystalline SiliEagres, ira. le , o%der	-	5	Zno%n to . e a huk an EarEinoKenL
Nitaniuk Diocide	-	6U	-
2yEohecanone	-	3	-
f ylene	-	3	-

Reproductive toxicity

v ot abaila. leL

Teratogenicity

v ot abaila. leL

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
B ethyl n-Ak yl Zetone	2ateKory 3	v ot a, , liEa. leL	Res, iratory traEt irritation and v arEotiE emeEts
2yEohecanone	2ateKory 3	v ot a, , liEa. leL	Res, iratory traEt irritation and v arEotiE emeEts
f ylene	2ateKory 3	v ot a, , liEa. leL	Res, iratory traEt irritation and v arEotiE emeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
B ethyl n-Ak yl Zetone	2ateKory 6	v ot deterk ined	v ot deterk ined
2rystalline SiliEagres, ira. le , o%der	2ateKory 5	Inhalation	v ot deterk ined
2yEohecanone	2ateKory 6	v ot deterk ined	v ot deterk ined
f ylene	2ateKory 6	v ot deterk ined	v ot deterk ined

Aspiration hazard

Name	Result
f ylene	ASPIRANIOv HAXARD - 2ateKory 5

Information on the likely routes of exposure : v ot abaila. leL

Potential acute health effects

Eye contact : 2auses serious eye irritationL

Inhalation : 2an Eause Eentral nerbous systek (2v S) de, ressionL B ay Eause dro%siness or dippinessL B ay Eause res, iratory irritationL

Skin contact : B ay Eause an allerKiE swin reaEtionL

Ingestion : 2an Eause Eentral nerbous systek (2v S) de, ressionL

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adberse syk , tok s k ay inEude the rollo%inK1
, ain or irritation
%aterinK
redness

Inhalation : Adberse syk , tok s k ay inEIude the rollo%inK1
res, iratory traEt irritation
EouKhinK
nausea or bok itinK
headaEhe
dro%siness:ratiKue
dippiness:bertiKo
unEonsEiousness
reduEed retal %eiKht
inErease in retal deaths
sweletal k alrork ations

Skin contact : Adberse syk , tok s k ay inEIude the rollo%inK1
irritation
redness
reduEed retal %eiKht
inErease in retal deaths
sweletal k alrork ations

Ingestion : Adberse syk , tok s k ay inEIude the rollo%inK1
reduEed retal %eiKht
inErease in retal deaths
sweletal k alrork ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Long term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Potential chronic health effects

v ot abaila. leL

General : 2auses dak aKe to orKans throuKh , rolonKed or re, eated ec, osureL OnEe sensitipedga sebere allerKiE reaEtion k ay oEEur %hen su. se/ uently ec, osed to bery lo% lebelsL

Carcinogenicity : B ay Eause EanEerL RiswomEanEer de, ends on duration and lebel omec, osureL

Mutagenicity : v o wno%n siKnirinEant emaEts or EritiEal hapardsL

Teratogenicity : Sus, eEted omdak aKinK the un. orn EhildL

Developmental effects : v o wno%n siKnirinEant emaEts or EritiEal hapardsL

Fertility effects : v o wno%n siKnirinEant emaEts or EritiEal hapardsL

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	7969l3 k K:wK
Derk al	76x70l8 k K:wK
Inhalation (Kases)	383945l8 , , k
Inhalation (ba, ors)	45l38 k K:l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
B ethyl n-Ak yl Zetone	AEute q2 70 535000 µK:l Fresh %ater	Fish - Pik e, hales , rok elas	M9 hours
Nitaniuk Diocide	AEute q2 70 >5000000 µK:l B arine %ater	Fish - Fundulus heteroElitus	M9 hours
2 yEohecanone	AEute T2 70 36lMk K:l Fresh %ater	AlKae - 2 hlak ydok onas reinhardtii - Tc, onential Kro%th , hase	x6 hours
	AEute q2 70 76x000 µK:l Fresh %ater	Fish - Pik e, hales , rok elas	M9 hours
	2 hroniE T2 50 3L79 k K:l Fresh %ater	AlKae - 2 hlak ydok onas reinhardtii - Tc, onential Kro%th , hase	x6 hours
f ylene	AEute q2 70 8700 µK:l B arine %ater	2 rustaEeans - Palaek onetes , uKio	48 hours
	AEute q2 70 53400 µK:l Fresh %ater	Fish - Pik e, hales , rok elas	M9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
B ethyl n-Ak yl Zetone	-	-	Readily
f ylene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
f ylene	-	8L5 to 67LM	lo%

Mobility in soil

Soil/water partition coefficient (K_{OC}) : v ot abaila. leL

Other adverse effects : v o wno%n siKnirinEant emaEts or EritiEal hapardsL

Section 13. Disposal considerations

Disposal methods : Nhe Keneration om%aste should . e aboided or k inik iped %hereber , ossi. leL Dis, osal omthis , roduEtgsolutions and any . y-, roduEts should at all tik es Eok , ly %ith the re/ uirek ents omenbironk ental , roteEtion and %aste dis, osal leKislation and any reKional loEal authority re/ uirek entsL Dis, ose omsur, lus and non-reEyEla. le , roduEts bia a liEensed %aste dis, osal EontraEtorL Waste should not . e dis, osed omuntreated to the se%er unless mlly Eok , liant %ith the re/ uirek ents omall authorities %ith jurisdiEtionL Waste , aEwaKinK should . e reEyEledL InEineration or landrill should only . e Eonsidered %hen reEyElinK is not measi. leL Nhis k aterial and its Eontainer k ust . e dis, osed omin a sam %ayL 2 are should . e tawen %hen handlinK ek , tied Eontainers that habe not . een Eleaned or rinsed outL Tk , ty Eontainers or liners k ay retain sok e , roduEt residuesL Va, or mok , roduEt residues k ay Ereate a hiKhly mak k a. le or ec, losibe atk os, here inside the EontainerL Do not Eutg%eld or Krind used Eontainers unless they habe . een Eleaned thorouKhly internallyL Aboid dis, ersal oms, illed k aterial and runomand EontaEt %ith soilg%ater%aysgdrains and se%ersL

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Cv 5693	Cv 5693	Cv 5693	Cv 5693	Cv 5693
UN proper shipping name	PAIv N	PAIv N	PAIv N	PAIv N	PAIv N
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	v oL	v oL	v oL	v oL	v oL
Additional information	Nhis , roduEt k ay . e re-Eassirie as "2 ok . usti. le qi/ uidg" unless trans, orted . y bessel or airEarti. v on-. ulw , aEwaKes (less than or e/ ual to 55MKal) om Eok . usti. le li/ uids are not reKulated as hapardous k aterialsL **ERG No.** 568	ProduEt Eassirie as , er the rollo%inK seEtions omthe Nrans, ortation om DanKerous Goods ReKulations16L 58-6L5M(2 lass 3)L **ERG No.** 568	- **ERG No.** 568	-	**Emergency schedules (EmS)** F-TgS-T

Special precautions for user : B ulti-k odal shi, , inK desEri, tions are , robided ror inrork ational , ur, oses and do not Eonsider Eontainer sipesLNhe , resenEe oma shi, , inK desEri, tion ror a , artiEular k ode omtrans, ort (seagairgetEL)gdoes not indiEate that the , roduEt is , aEwaKed suita. ly ror that k ode omtrans, ortLAll , aEwaKinK k ust . e rebie%ed ror suita. ility , rior to shi, k entgand Eok , lianEe %ith the a, , liEa. le reKulations is the sole res, onsi. ility omthe , erson omerinK the , roduEt ror trans, ortLPeo, le loadinK and unloadinK danKerous Koods k ust . e trained on all omthe risws deribinK rok the su. stanEes and on all aEtions in Ease omek erKenEy situationsL

Transport in bulk according to Annex II of MARPOL and the IBC Code : v ot abaila. leL

Proper shipping name : v ot abaila. leL

Ship type : v ot abaila. leL

Pollution category : v ot abaila. leL

Section 15. Regulatory information

SARA 313

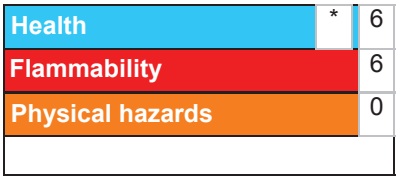
SARA 353 (40 2 FR 3x6l47) su, , lier notirnEation Ean . e round on the Tnbironk ental Data SheetL

California Prop. 65

WARv Iv G1 Nhis , roduEt Eontains Ehek iEals wno%n to the State om2 alirornia to Eause EanEer and . irth demeEts or other re, roduEtibe hark L

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FqAB B AUqT qIQCIDS - 2 ateKory 3	On . asis omtest data
STRIOCS TYT DAB AGT: TYT IRRINANIOv - 2 ateKory 6A	2 alEulation k ethod
SZIv STv SINIXANIOv - 2 ateKory 5	2 alEulation k ethod
2 AR2 Iv OGTv I2 INY - 2 ateKory 5A	2 alEulation k ethod
NOf I2 NO RTPRODC2 NIOv (Cn. orn Ehild) - 2 ateKory 6	2 alEulation k ethod
SPT2 IFI2 NARGTN ORGAv NOf I2 INY (SIv GqT Tf POSCRT) (Res, iratory traEt irritation) - 2 ateKory 3	2 alEulation k ethod
SPT2 IFI2 NARGTN ORGAv NOf I2 INY (SIv GqT Tf POSCRT) (v arEotiE emeEts) - 2 ateKory 3	2 alEulation k ethod
SPT2 IFI2 NARGTN ORGAv NOf I2 INY (RTPTANTD Tf POSCRT) - 2 ateKory 5	2 alEulation k ethod

History

Date of printing : 9:3:605x

Date of issue/Date of revision : 9:3:605x

Date of previous issue : 4:60:605x

Version : 9

Key to abbreviations :
ANT = AEute NociEity Tstik ate
U2 F = UioEonEentration FaEtor
GHS = Glo. ally Hark oniped Systek om2 lassirnEation and qa. ellinK om2 hek iEals
IANA = International Air Nrans, ort AssoEiation
IU2 = Interk ediate Uulw2 ontainer
IB DG = International B aritik e DanKerous Goods
qoKPo% = loKarithk om the oEtanol:%ater , artition EoemiEient
B ARPOq = International 2 onbention mor the Prebention omPollution Frok Shi, sg5Mk3 as k odimed . y the ProtoEol om5Mk8L("B ar, ol" = k arine , ollution)
Cv = Cnited v ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g65HR R FQF

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Ualerus Pallet pan

Product code : g65HR R FQF

Other means of identification : Bot aNailavleb

CAS # : Bot aYYlicavleb

Product type : . iLuidb

Relevant identified uses of the substance or mixture and uses advised against

Bot aYYlicavleb

Manufacturer : pHE SHE3 R TB-R T . TWMS CAMPWBO
1Q1 R bProsYect WNenue
CleNeland, AH 88115

Emergency telephone number of the company : qS / Canada: (216) 566-2917
Mexico: SEpTT Q1-0QQ-QQ-218-QQ/ 4bDb5559-1500 28 hours / F65 days a year

Product Information Telephone Number : qS / Canada: (0QQ) 528-5979
Mexico: Bot WNailavle

Regulatory Information Telephone Number : qS / Canada: (216) 566-29Q2
Mexico: Bot WNailavle

Transportation Emergency Telephone Number : qS / Canada: (0QQ) 828-9FQQ
Mexico: SEpTT Q1-0QQ-QQ-218-QQ/ 4bDb5559-1500 28 hours / F65 days a year

Section 2. Hazards identification

OSHA/HCS status : phis k aterial is considered haVardous vy the ASHWHaVard Cok k unication Standard (29 CD3 191Qb12QQ)b

Classification of the substance or mixture : D. WMMWg . E . T qT4S - CateKory F
SE3TAqS EOE 4WMWGE/ EOE T3 3TpWpTAB - CateKory 2W
SZTB SEBSTpTXWpTAB - CateKory 1
CW8 CTBAGEBTCTpO - CateKory 1W
pAf TC pA 3EP3A4qCpTAB (qnvorn child) - CateKory 2
SPECTDTC pW8GEp A3GWB pAf TCTpO (STBG. E Ef PASq3E) (3esYiratory tract irritation) - CateKory F
SPECTDTC pW8GEp A3GWB pAf TCTpO (STBG. E Ef PASq3E) (Barcotic emects) - CateKory F
SPECTDTC pW8GEp A3GWB pAf TCTpO (3EPEWpE4 Ef PASq3E) - CateKory 1
PercentaKe omthe k ixture consistinK ominKredient(s) omunwno%n acute toxicity: 28b9z

GHS label elements

Hazard pictograms :

Signal word : 4anKer

Section 2. Hazards identification

Hazard statements : Dlak k avle liLuid and NaYorb
Causes serious eye irritationb
May cause an allerKic swin reactionb
May cause cancerb
SusYected omdak aKinK the unvorn childb
May cause resYiratory irritationb
May cause dro%siness or diVinessb
Causes dak aKe to orKans throuKh YrolonKed or reYeated exYosureb

Precautionary statements

Prevention : Avtain sYecial instructions verore useb 4 o not handle until all sarety Yrecautions haNe veen read and understoodb R ear YrotectiNe KloNesb R ear eye or race Yrotectionb R ear YrotectiNe clothinKb ZeeY a%ay rrok heat, hot surraces, sYarws, oYen rnak es and other iKnition sourcesbBo sk owinKb q se exYlosion-Yrooreelectrical, NentilatinK, liKhtinK and all k aterial-handlinK eLuiYk entb q se only non-sYarwinK toolsb pawe Yrecautionary k easures aKainst static discharKeb ZeeY container tiKhtly closedb q se only outdoors or in a %ell-Nentilated areab 4 o not vreathe NaYorb 4 o not eat, drinwor sk owe %hen usinK this Yroductb R ash hands thorouKhly arter handlinKb Contak inated %orwclothinK k ust not ve allo%ed out omthe %orwYlaceb

Response : Get k edical attention imyou reel un%ellb TD exYosed or concerned: Get k edical attentionb TD TBHW E4 : 3ek oNe Yerson to rresh air and weeY cok rortavle ror vreathinKb Call a PATSAB CEBpE3 or Yhysician imyou reel un%ellb TD AB SZTB (or hair): pawe orm ik k ediately all contak inated clothinKb 3inse swin %ith %ater or sho%erb TD AB SZTB: R ash %ith Ylenty omsoaY and %aterb R ash contak inated clothinK verore reuseb Tmswin irritation or rash occurs: Get k edical attentionb TD TB EOES: 3inse cautiously %ith %ater ror seNeral k inutesb 3ek oNe contact lenses, imYresent and easy to dobContinue rinsinKb Tmeye irritation Yersists: Get k edical attentionb

Storage : Store locwed uYb Store in a %ell-Nentilated Ylaceb ZeeY coolb

Disposal : 4 isYose omcontents and container in accordance %ith all local, reKional, national and international reKulationsb

Supplemental label elements 4 E. WOE4 EDDECpS D3 AM . ABG pE3 M AUE3 Ef PASq 3 EbContains solNents %hich can cause Yerk anent vrain and nerNous systek dak aKebTntentional k isuse vy deliverately concentratinK and inhalinK the contents can ve hark rol or ratalb R W8 BTBG: phis Yroduct contains chek icals wno%n to the State omCalirornia to cause cancer and virth derects or other reYroductiNe hark b DA3 TB4 q Sp3 TW. q SE AB. Ob phis Yroduct k ust ve k ixed %ith other cok Yonents verore usebg erore oYeninK the YacwaKes, 3 EW4 WB4 DA. . AR R W8 BTBG . WgE. S AB W. CAMPABEBpSbWdeLuate Nentilation reLuired %hen sandinK or avradinK the dried rilk bTnWdeLuate Nentilation cannot ve YroNded %ear an aYYroNed Yarticulate resYirator (BTASH aYYroNed)bDollo% resYirator k anuracturer's directions ror resYirator useb4 E. WOE4 EDDECpS D3 AM . ABG pE3 M AUE3 Ef PASq 3 EbWvradinK or sandinK omthe dry rilk k ay release Crystalline Silica %hich has veen sho%n to cause lunK dak aKe and cancer under lonK terk exYosureb

Please rerer to the S4 S ror additional inrork ationbZeeY out omreach omchildrenb 4 o not transrer contents to other containers ror storaKeb

Hazards not otherwise classified : Bone wno%nb

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Bot aNailavleb

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Wk yl Zetone	19bF1	11Q-8F-Q
pitaniuk 4 ioxide	18bQ9	1F86F-67-7
Crystalline Silica, resYiravle Yo%der	1Qb0	180Q0-6Q-7
Cyclohexanone	1b77	1Q0-98-1
f ylene	QbF1	1FFQ-2Q-7
gis(Yentak ethyl-8-YiYeridyl)sevacate	Qb22	81556-26-7

Why concentration sho%n as a ranKe is to Yrotect conmidentiality or is due to vatch Nariationb

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tk k ediately rhush eyes %ith Ylenty om%ater, occasionally lirtinK the uYYer and lo%er eyelidsb Checwmor and rek oNe any contact lensesb Continue to rinse mor at least 1Q k inutesb Get k edical attentionb

Inhalation : 3 ek oNe Nctik to mesh air and weeY at rest in a Yosition cok mortavle mor vreathinKb Tmit is susYected that mok es are still Yresent, the rescuer should %ear an aYYroYriate k asw or selmcontained vreathinK aYYaratusb Tmmot vreathinK, imvreathinK is irreKular or im resYiratory arrest occurs, YroNde artimcial resYiration or oxyKen vy trained Yersonnelb Tt k ay ve danKerous to the Yerson YroNdinK aid to KiNe k outh-to-k outh resuscitationb Get k edical attentionb Tmnecessary, call a Yoison center or Yhysicianb Tmunconscious, Ylace in recoNery Yosition and Ket k edical attention ik k ediatelyb Maintain an oYen air%ayb . oosen tiKht clothinK such as a collar, tie, velt or %aistvandb

Skin contact : R ash %ith Ylenty omsoaY and %aterb 3 ek oNe contak inated clothinK and shoesb R ash contak inated clothinK thorouKhly %ith %ater vemore rek oNnK it, or %ear KloNesb Continue to rinse mor at least 1Qk inutesb Get k edical attentionb Tn the eNent omany cok Ylaints or syk Ytok s, aNbid morther exYosureb R ash clothinK vemore reuseb Clean shoes thorouKhly vemore reuseb

Ingestion : R ash out k outh %ith %aterb 3 ek oNe dentures imanyb 3 ek oNe Nctik to mesh air and weeY at rest in a Yosition cok mortavle mor vreathinKb Tmk aterial has veen s%allo%ed and the exYosed Yerson is conscious, KiNe sk all Luantities om%ater to drinwb StoY imthe exYosed Yerson meels sicwas Nok itinK k ay ve danKerousb 4 o not induce Nok itinK unless directed to do so vy k edical Yersonnelb TmNok itinK occurs, the head should ve weYt lo% so that Nok it does not enter the lunKsb Get k edical attentionb Tmnecessary, call a Yoison center or Yhysicianb BeNer KiNe anythinK vy k outh to an unconscious Yersonb Tmunconscious, Ylace in recoNery Yosition and Ket k edical attention ik k ediatelyb Maintain an oYen air%ayb . oosen tiKht clothinK such as a collar, tie, velt or %aistvandb

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous systek (CBS) deYressionb May cause dro%siness or diWnessb May cause resYiratory irritationb

Skin contact : May cause an allerKic swin reactionb

Ingestion : Can cause central nerNous systek (CBS) deYressionb

Over-exposure signs/symptoms

Eye contact : WdNerse syk Ytok s k ay include the mollo%inK:
Yain or irritation
%aterinK
redness

Section 4. First aid measures

Inhalation : WdNerse syk Ytok s k ay include the rollo%inK:
resYiratory tract irritation
couKhinK
nausea or Nok itinK
headache
dro%siness/ratiKue
diVVness/NertiKo
unconsciousness
reduced retal %eiKht
increase in retal deaths
sweletal k alrork ations

Skin contact : WdNerse syk Ytok s k ay include the rollo%inK:
irritation
redness
reduced retal %eiKht
increase in retal deaths
sweletal k alrork ations

Ingestion : WdNerse syk Ytok s k ay include the rollo%inK:
reduced retal %eiKht
increase in retal deaths
sweletal k alrork ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : preat syk Ytok aticallyb Contact Yoison treatk ent sYecialist ik k ediately imlarKe Luantities haNe veen inKested or inhaledb

Specific treatments : Bo sYecirnc treatk entb

Protection of first-aiders : Bo action shall ve tawen inNolNnK any Yersonal riswor %ithout suitavle trainink b Tmit is susYected that rok es are still Yresent, the rescuer should %ear an aYYroYriate k aswor selmcontained vreathinK aYYaratusb Tf k ay ve danKerous to the Yerson YroNdinK aid to KiNe k outh-to-k outh resuscitationb R ash contak inated clothinK thorouKhly %ith %ater verore rek oNnK it, or %ear KloNesb

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : q se dry chek ical, CO_2, %ater sYray (roK) or roak b

Unsuitable extinguishing media : 4 o not use %ater jetb

Specific hazards arising from the chemical : Dlak k avle liLuid and NaYorb Tn a rire or inheated, a Yressure increase %ill occur and the container k ay vurst, %ith the riswoma suvseLuent exYlosionb phe NaYor/Kas is heaNer than air and %ill sYread alonK the Kroundb UaYors k ay accuk ulate in lo% or conrined areas or traNel a consideravle distance to a source omiKnition and rlash vacwb 3 unomto se%er k ay create rire or exYlosion haVardb

Hazardous thermal decomposition products : 4 ecok Yosition Yroducts k ay include the rollo%inK k aterials:
carvon dioxide
carvon k onoxide
k etal oxide/oxides

Special protective actions for fire-fighters : Prok Ytly isolate the scene vy rek oNnK all Yersons rrok the Ncinity orrthe incident im there is a rireb Bo action shall ve tawen inNolNnK any Yersonal riswor %ithout suitavle trainink b MoNe containers rrok rire area imthis can ve done %ithout riswb q se %ater sYray to weeY rire-exYosed containers coolb

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-rikhters should %ear aYYroYriate YrotectiNe eLuiYk ent and selm-contained vreathinK aYYaratus (SCgW) %ith a roll race-Yiece oYerated in YositiNe Yressure k odeb

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Bo action shall ve tawen inNolNnK any Yersonal riswor %ithout suitavle trainiNKb ENacuate surroundinK areasb ZeeY unnecessary and unYrotected Yersonnel rmok enterinKb 4 o not touch or %alwthrouKh sYilled k aterialb Shut omall iKnition sourcesb Bo rhares, sk owinK or rmak es in haVard areab WNbid vreathinK NaYor or k istb ProNde adeLuate Nentilationb R ear aYYroYriate resYirator %hen Nentilation is inadeLuateb Put on aYYroYriate Yersonal YrotectiNe eLuiYk entb

For emergency responders : TmsYecialiVed clothinK is reLuired to deal %ith the sYillaKe, tawe note omany inrork ation in Section 0 on suitavle and unsuitavle k aterialsb See also the inrork ation in "Dor non-ek erKency Yersonnel"b

Environmental precautions : WNbid disYersal omsYilled k aterial and runonmand contact %ith soil, %ater%ays, drains and se%ersb Tnrork the releNant authorities imthe Yroduct has caused enNronk ental Yollution (se%ers, %ater%ays, soil or air)b

Methods and materials for containment and cleaning up

Small spill : StoY leawim%ithout riswb MoNe containers rmok sYill areab q se sYarw-Yroomtools and exYlosion-YroomeLuiYk entb 4 ilute %ith %ater and k oY uY im%ater-soluvleb WlternatiNely, or im%ater-insoluvle, avsorv %ith an inert dry k aterial and Ylace in an aYYroYriate %aste disYosal containerb 4 isYose omNa a licensed %aste disYosal contractorb

Large spill : StoY leawim%ithout riswb MoNe containers rmok sYill areab q se sYarw-Yroomtools and exYlosion-YroomeLuiYk entb WYYroach release rmok uY%indb PreNent entry into se%ers, %ater courses, vasek ents or conrmed areasb R ash sYillaKes into an emluent treatk ent Ylant or Yroceed as rollo%sb Contain and collect sYillaKe %ith non-cok vustivle, avsorvent k aterial eKbsand, earth, Nerk iculite or diatok aceous earth and Ylace in container ror disYosal accordinK to local reKulations (see Section 1F)b 4 isYose omNa a licensed %aste disYosal contractorb Contak inated avsorvent k aterial k ay Yose the sak e haVard as the sYilled Yroductb Bote: see Section 1 ror ek erKency contact inrork ation and Section 1F ror %aste disYosalb

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotectiNe eLuiYk ent (see Section 0)b Persons %ith a history omswin sensitiVation Yrovlek s should not ve ek Yloyed in any Yrocess in %hich this Yroduct is usedb WNbid exYosure - ovtain sYecial instructions verore useb WNbid exYosure durinK YreKnancyb 4 o not handle until all sarety Yrecautions haNe veen read and understoodb 4 o not Ket in eyes or on swin or clothinKb 4 o not vreathe NaYor or k istb 4 o not inKestb q se only %ith adeLuate Nentilationb R ear aYYroYriate resYirator %hen Nentilation is inadeLuateb 4 o not enter storaKe areas and conrined sYaces unless adeLuately Nentilatedb ZeeY in the oriKinal container or an aYYroNed alternatiNe k ade rmok a cok Yativle k aterial, weYt tiKhtly closed %hen not in useb Store and use a%ay rmok heat, sYarws, oYen rmak e or any other iKnition sourceb q se exYlosion-Yroom electrical (NentilatinK, liKhtinK and k aterial handlinK) eLuiYk entb q se only non-sYarwinK toolsb pawe Yrecautionary k easures aKainst electrostatic discharKesb Ek Yty containers retain Yroduct residue and can ve haVardousb 4 o not reuse containerb

Advice on general occupational hygiene : EatinK, drinwinK and sk owinK should ve Yrohivited in areas %here this k aterial is handled, stored and Yrocessedb R orwers should %ash hands and race verore eatinK, drinwinK and sk owinKb 3 ek oNe contak inated clothinK and YrotectiNe eLuiYk ent verore enterinK eatinK areasb See also Section 0 ror additional inrork ation on hyKiene k easuresb

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance %ith local reKulationsb Store in a seKreKated and aYYroNed areab Store in oriKinal container Yrotected rnok direct sunliKht in a dry, cool and %æll-Nentilated area, a%ay rnok incok Yativle k aterials (see Section 1Q) and rnood and drinwb Store locwed uYb Elik inate all iKnition sourcesb SeYarate rnok oxidiVnK k aterialsb ZeeY container tiKhtly closed and sealed until ready ror useb Containers that haNe veen oYened k ust ve caremlly resealed and weYt uYriKht to YreNent leawaKeb 4 o not store in unlaveled containersb q se aYYroYriate containk ent to aNbid enNronk ental contak inationb

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Wk yl Zetone	**ACGIH TLV (United States, 3/2016).** pR W: 5QYYk 0 hoursb pR W: 2FF k K/k ³ 0 hoursb **NIOSH REL (United States, 10/2013).** pR W: 1QQYYk 1Qhoursb pR W: 865 k K/k ³ 1Qhoursb **OSHA PEL (United States, 6/2016).** pR W: 1QQYYk 0 hoursb pR W: 865 k K/k ³ 0 hoursb
pitaniuk 4 ioxide	**ACGIH TLV (United States, 3/2016).** pR W: 1Qk K/k ³ 0 hoursb **OSHA PEL (United States, 6/2016).** pR W: 15 k K/k ³ 0 hoursbDork : potal dust
Crystalline Silica, resYiravle Yo%der	**OSHA PEL Z3 (United States, 6/2016).** pR W: 25Qk YYcm/ (z SiA2+5) 0 hoursbDork : 3 esYiravle pR W: 1Qk K/k ³ / (z SiA2+2) 0 hoursbDork : 3 esYiravle **OSHA PEL (United States, 6/2016).** pR W: 5QµK/k ³ 0 hoursbDork : 3 esYiravle dust **ACGIH TLV (United States, 3/2016).** pR W: QbQ25 k K/k ³ 0 hoursbDork : 3 esYiravle rnaction **NIOSH REL (United States, 10/2013).** pR W: QbQ5 k K/k ³ 1QhoursbDork : resYiravle dust
Cyclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** pR W: 2QYYk 0 hoursb SpE. : 5QYYk 15 k inutesb **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** pR W: 25 YYk 1Qhoursb pR W: 1QQk K/k ³ 1Qhoursb **OSHA PEL (United States, 6/2016).** pR W: 5QYYk 0 hoursb pR W: 2QQk K/k ³ 0 hoursb
f ylene	**ACGIH TLV (United States, 3/2016).** pR W: 1QQYYk 0 hoursb pR W: 8F8 k K/k ³ 0 hoursb SpE. : 15QYYk 15 k inutesb SpE. : 651 k K/k ³ 15 k inutesb **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	pR W: 1QQ.YYk 0 hoursb pR W: 8F5 k K/k ³ 0 hoursb
gis(Yentak ethyl-8-YiYeridyl)sevacate	Boneb

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Crystalline Silica, resYiravle Yo%der	**CA British Columbia Provincial (Canada, 5/2015).** pR W: Q.QQ25 k K/k ³ 0 hoursbDork : 3 esYiravle **CA Quebec Provincial (Canada, 1/2014).** pR WEU: Q.b1 k K/k ³ 0 hoursbDork : 3 esYiravle dustb **CA Ontario Provincial (Canada, 7/2015).** pR W: Q.b1 k K/k ³ 0 hoursbDork : 3 esYiravle mactionb **CA Alberta Provincial (Canada, 4/2009).** 0 hrs AE. : Q.QQ25 k K/k ³ 0 hoursbDork : 3 esYiravle Yarticulate **CA Saskatchewan Provincial (Canada, 7/2013).** pR W: Q.QQ5 k K/k ³ 0 hoursbDork : resYiravle maction
Cyclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs AE. : 2QYYk 0 hoursb 0 hrs AE. : 0Qk K/k ³ 0 hoursb 15 k in AE. : 2QQk K/k ³ 15 k inutesb 15 k in AE. : 5QYYk 15 k inutesb **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** pR W: 2QYYk 0 hoursb SpE. : 5QYYk 15 k inutesb **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** pR W: 2QYYk 0 hoursb SpE. : 5QYYk 15 k inutesb **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** pR WEU: 25 YYk 0 hoursb pR WEU: 1QQk K/k ³ 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SpE. : 5QYYk 15 k inutesb pR W: 2QYYk 0 hoursb
f ylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs AE. : 1QQYYk 0 hoursb 15 k in AE. : 651 k K/k ³ 15 k inutesb 15 k in AE. : 15QYYk 15 k inutesb 0 hrs AE. : 8F8 k K/k ³ 0 hoursb **CA British Columbia Provincial (Canada, 5/2015).** pR W: 1QQYYk 0 hoursb SpE. : 15QYYk 15 k inutesb **CA Quebec Provincial (Canada, 1/2014).** pR WEU: 1QQYYk 0 hoursb pR WEU: 8F8 k K/k ³ 0 hoursb SpEU: 15QYYk 15 k inutesb

Section 8. Exposure controls/personal protection

	SpEU: 651 k K/k ³ 15 k inutesb **CA Ontario Provincial (Canada, 7/2015).** SpE. : 15QYYk 15 k inutesb pR W. 1QQYYk 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013).** SpE. : 15QYYk 15 k inutesb pR W. 1QQYYk 0 hoursb

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Wk yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPp: 5QYYk 0 hoursb
Crystalline Silica, resYiravle Yo%der	**NOM-010-STPS (Mexico, 4/2016).** . MPE-PPp: QbQ25 k K/k ³ 0 hoursbDork : 3 esYiravle rnaction
Cyclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** . MPE-PPp: 2QYYk 0 hoursb . MPE-Cp: 5QYYk 15 k inutesb
f ylene	**NOM-010-STPS (Mexico, 4/2016).** . MPE-Cp: 15QYYk 15 k inutesb . MPE-PPp: 1QQYYk 0 hoursb

Appropriate engineering controls : q se only %ith adeLuate Nentilationb q se Yrocess enclosures, local exhaust Nentilation or other enKineerinK controls to weeY %orwer exYosure to airvorne contak inants velo% any recok k ended or statutory lik itsb phe enKineerinK controls also need to weeY Kas, NaYor or dust concentrations velo% any lo%er exYlosiNe lik itsb q se exYlosion-Yroom Nentilation eLuiYk entb

Environmental exposure controls : Ek issions rnok Nentilation or %orwYrocess eLuiYk ent should ve checwed to ensure they cok Yly %ith the reLuirek ents ornenNronk ental Yrotection leKislationb Tn sok e cases, rnok e scruvvers, rnitters or enKineerinK k odinrications to the Yrocess eLuiYk ent %ill ve necessary to reduce ek issions to acceYtavle leNelsb

Individual protection measures

Hygiene measures : R ash hands, rnoreark s and race thorouKhly arter handlinK chek ical Yroducts, vernore eatinK, sk owinK and usinK the laNatory and at the end ornthe %orwinK Yeriodb WYYroYriate techniLues should ve used to rek oNe Yotentially contak inated clothinKb Contak inated %orwclothinK should not ve allo%ed out ornthe %orwYlaceb R ash contak inated clothinK vernore reusinKb Ensure that eye%ash stations and sarnety sho%ers are close to the %orwstation locationb

Eye/face protection : Sarnety eye%ear cok YlyinK %ith an aYYroNed standard should ve used %hen a riswassessk ent indicates this is necessary to aNbid exYosure to liLuid sYlashes, k ists, Kases or dustsb Tmcontact is Yossivle, the rollo%inK Yrotection should ve %orn, unless the assessk ent indicates a hiKher deKree ornYrotection: chek ical sYlash KoKKlesb

Skin protection

Hand protection : Chek ical-resistant, ik YerNous KloNes cok YlyinK %ith an aYYroNed standard should ve %orn at all tik es %hen handlinK chek ical Yroducts ima riswassessk ent indicates this is necessaryb ConsiderinK the Yarak eters sYecirned vy the KloNe k anurnacturer, checw durinK use that the KloNes are still retaininK their YrotectiNe YroYertiesb Tt should ve noted that the tik e to vreawthrouKh ror any KloNe k aterial k ay ve dirnerent ror dirnerent KloNe k anurnacturersb Tn the case ornk ixtures, consistinK ornseNeral suvstances, the Yrotection tik e ornthe KloNes cannot ve accurately estik atedb

Section 8. Exposure controls/personal protection

Body protection : Personal YrotectiNe eLuiYk ent nor the vody should ve selected vased on the taswveinK Yernork ed and the risws inNolNed and should ve aYYroNed vy a sYecialist vernore handlinK this Yroductb R hen there is a riswomiKnition nrok static electricity, %ear anti-static YrotectiNe clothinKb Dor the Kreatest Yrotection nrok static dischar Kes, clothinK should include anti-static oNeralls, voots and KloNesb

Other skin protection : WYYroYriate noot%ear and any additional swin Yrotection k easures should ve selected vased on the taswveinK Yernork ed and the risws inNolNed and should ve aYYroNed vy a sYecialist vernore handlinK this Yroductb

Respiratory protection : gased on the haVard and Yotential nor exYosure, select a resYirator that k eets the aYYroYriate standard or certinicationb 3 esYirators k ust ve used accordinK to a resYiratory Yrotection YroKrak to ensure YroYer nittinK, traininK, and other ik Yortant asYects onuseb

Section 9. Physical and chemical properties

Appearance

Physical state : . iLuidb

Color : Bot aNailavleb

Odor : Bot aNailavleb

Odor threshold : Bot aNailavleb

pH : Bot aNailavleb

Melting point : Bot aNailavleb

Boiling point : 187°C (296b6°D)

Flash point : Closed cuY: F9°C (1Q2b2°D) [Penswy-Martens Closed CuY]

Evaporation rate : Q.FF (vutyl acetate = 1)

Flammability (solid, gas) : Bot aNailavleb

Lower and upper explosive (flammable) limits : . o%er: 1b1z
q YYer: 0b1z

Vapor pressure : Q.51 wPa (Fb055 k k HK) [at 2Q°C]

Vapor density : Ft8 [Wr = 1]

Relative density : 1b26

Solubility : Bot aNailavleb

Partition coefficient: n-octanol/water : Bot aNailavleb

Auto-ignition temperature : Bot aNailavleb

Decomposition temperature : Bot aNailavleb

Viscosity : Zinek atic (8Q°C (1Q8°D)): >Q.2Q5 ck ^{2}/s (>2Q5 cSt)

Molecular weight : Bot aYYlicavleb

Aerosol product

Heat of combustion : 1Q.87 wJ/K

Section 10. Stability and reactivity

Reactivity : Bo sYecinic test data related to reactiNty aNailavle nor this Yroduct or its inKredientsb

Chemical stability : phe Yroduct is stavleb

Possibility of hazardous reactions : q nder nork al conditions onstoraKe and use, haVardous reactions %ill not occurb

Section 10. Stability and reactivity

Conditions to avoid : WNbid all Yossivle sources omiKnition (sYarwor mak e)b 4o not YressuriVe, cut, %eld, vraVe, solder, drill, Krind or exYose containers to heat or sources omiKnitionb 4o not allo% NaYor to accuk ulate in lo% or conrined areasb

Incompatible materials : 3eactiNe or incok Yativle %ith the rollo%inK k aterials: oxidiVinK k aterials

Hazardous decomposition products : q nder nork al conditions omstoraKe and use, haVardous decok Yosition Yroducts should not ve Yroducedb

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Wk yl Zetone	. 4 5QA ral	3 at	16QQ k K/wK	-
Cyclohexanone	. C5Q Tnhalation Gasb	3 at	0QQQ YYk	8 hours
	. 4 5QA ral	3 at	10QQ k K/wK	-
f ylene	. C5Q Tnhalation Gasb	3 at	5QQQ YYk	8 hours
	. 4 5QA ral	3 at	8FQQ k K/wK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Wk yl Zetone	Swin - Mild irritant	3 avvit	-	28 hours 18 k illiKrak s	-
pitaniuk 4 ioxide	Swin - Mild irritant	Huk an	-	72 hours FQQ MicroKrak s Tnterk ittent	-
Cyclohexanone	Eyes - SeNere irritant	3 avvit	-	28 hours 25Q MicroKrak s	-
	Eyes - SeNere irritant	3 avvit	-	2Qk illiKrak s	-
	Swin - Mild irritant	Huk an	-	80 hours 5Q Percent	-
	Swin - Mild irritant	3 avvit	-	5QQ k illiKrak s	-
f ylene	Eyes - Mild irritant	3 avvit	-	07 k illiKrak s	-
	Eyes - SeNere irritant	3 avvit	-	28 hours 5 k illiKrak s	-
	Swin - Mild irritant	3 at	-	0 hours 6Q k icroliters	-
	Swin - Moderate irritant	3 avvit	-	28 hours 5QQ k illiKrak s	-
	Swin - Moderate irritant	3 avvit	-	1QQ Percent	-

Sensitization

Bot aNailavleb

Mutagenicity

Bot aNailavleb

Carcinogenicity

Bot aNailavleb

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
pitaniuk 4 ioxide	-	2g	-
Crystalline Silica, resYiravle Yo%der	-	1	Zno%n to ve a huk an carcinoKenb
Cyclohexanone	-	F	-
f ylene	-	F	-

Reproductive toxicity

Bot aNailavleb

Teratogenicity

Bot aNailavleb

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wk yl Zetone	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects
Cyclohexanone	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects
f ylene	CateKory F	Bot aYYlicavleb	3 esYiratory tract irritation and Barcotic emects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Wk yl Zetone	CateKory 2	Bot deterk ined	Bot deterk ined
Crystalline Silica, resYiravle Yo%der	CateKory 1	Tnhalation	Bot deterk ined
Cyclohexanone	CateKory 2	Bot deterk ined	Bot deterk ined
f ylene	CateKory 2	Bot deterk ined	Bot deterk ined

Aspiration hazard

Name	Result
f ylene	WSPT3 WpTAB HWKW84 - CateKory 1

Information on the likely routes of exposure : Bot aNailavleb

Potential acute health effects

Eye contact : Causes serious eye irritationb

Inhalation : Can cause central nerNous systek (CBS) deYressionb May cause dro%siness or diVVnessb May cause resYiratory irritationb

Skin contact : May cause an allerKic swin reactionb

Ingestion : Can cause central nerNous systek (CBS) deYressionb

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : WdNerse syk Ytok s k ay include the rollo%inK:
Yain or irritation
%aterinK
redness

Inhalation : WdNerse syk Ytok s k ay include the rollo%inK:
resYiratory tract irritation
couKhinK
nausea or Nok itinK
headache
dro%siness/ratiKue
diVVness/NertiKo
unconsciousness
reduced retal %eiKht
increase in retal deaths
sweletal k alrork ations

Skin contact : WdNerse syk Ytok s k ay include the rollo%inK:
irritation
redness
reduced retal %eiKht
increase in retal deaths
sweletal k alrork ations

Ingestion : WdNerse syk Ytok s k ay include the rollo%inK:
reduced retal %eiKht
increase in retal deaths
sweletal k alrork ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Long term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Potential chronic health effects

Bot aNailavleb

General : Causes dak aKe to orKans throuKh YrolonKed or reYeated exYosureb Ance sensitiVed, a seNere allerKic reaction k ay occur %hen suvseLuently exYosed to Nery lo% leNelsb

Carcinogenicity : May cause cancerb 3 iswomcancer deYends on duration and leNel omexYosureb

Mutagenicity : Bo wno%n siKnirimcant emects or critical haVardsb

Teratogenicity : SusYected omdak aKinK the unvorn childb

Developmental effects : Bo wno%n siKnirimcant emects or critical haVardsb

Fertility effects : Bo wno%n siKnirimcant emects or critical haVardsb

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral 4erk al Tnhalation (Kases) Tnhalation (NaYors)	5758b7 k K/wK 86671b7 k K/wK FF98FQb9 YYk 82b79 k K/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Wk yl Zetone	Wcute . C5Q1F1QQQ µK/l Dresh %ater	Dish - Pik eYhales Yrok elas	96 hours
pitaniuk 4 ioxide	Wcute . C5Q>1QQQQQQ µK/l Marine %ater	Dish - Dundulus heteroclitus	96 hours
Cyclohexanone	Wcute EC5QF2b9 k K/l Dresh %ater	WKae - Chlak ydok onas reinhardtii - ExYonential Kro%th Yhase	72 hours
	Wcute . C5Q527QQQ µK/l Dresh %ater	Dish - Pik eYhales Yrok elas	96 hours
	Chronic EC1QFb56 k K/l Dresh %ater	WKae - Chlak ydok onas reinhardtii - ExYonential Kro%th Yhase	72 hours
f ylene	Wcute . C5Q05QQ µK/l Marine %ater	Crustaceans - Palaek onetes YuKio	80 hours
	Wcute . C5Q1F8QQ µK/l Dresh %ater	Dish - Pik eYhales Yrok elas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Wk yl Zetone	-	-	3 eadily
f ylene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
f ylene	-	0b1 to 25b9	lo%

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Bot aNailavleb

Other adverse effects : Bo wno%n siKnirimcant emects or critical haVardsb

Section 13. Disposal considerations

Disposal methods : phe Keneration om%aste should ve aNoided or k inik iVed %hereNer Yossivleb 4 isYosal omthis Yroduct, solutions and any vy-Yroducts should at all tik es cok Yly %ith the reLuirek ents omenNronk ental Yrotection and %aste disYosal leKislation and any reKional local authority reLuirek entsb 4 isYose omsurYlus and non-recyclavle Yroducts Na a licensed %aste disYosal contractorb R aste should not ve disYosed omuntreated to the se%er unless nolly cok Yliant %ith the reLuirek ents omall authorities %ith jurisdictionb R aste YacwaKinK should ve recycledb Tncineration or landrill should only ve considered %hen recyclinK is not measivleb phis k aterial and its container k ust ve disYosed omin a same %ayb Care should ve tawen %hen handlinK ek Ytied containers that haNe not veen cleaned or rinsed outb Ek Yty containers or liners k ay retain sok e Yroduct residuesb UaYor nok Yroduct residues k ay create a hiKhly mak k avle or exYlosiNe atk osYhere inside the containerb 4 o not cut, %eld or Krind used containers unless they haNe veen cleaned thorouKhly internallyb WNoid disYersal omsYilled k aterial and runonmand contact %ith soil, %ater%ays, drains and se%ersb

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	q B126F	q B126F	q B126F	q B126F	q B126F
UN proper shipping name	PWTBp	PWTBp	PWTBp	PWTBp	PWTBp
Transport hazard class(es)	F	F	F	F	F
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	Bob	Bob	Bob	Bob	Bob
Additional information	phis Yroduct k ay ve re-classiried as "Cok vustivle . iLuid," unless transYorted vy Nessel or aircrartb Bon-vulw YacwaKes (less than or eLual to 119 Kal) om cok vustivle liLuids are not reKulated as haVardous k aterials in YacwaKe siVes less than the Yroduct reYortavle Luantityb **ERG No.** 120	Product classiried as Yer the rollo%inK sections omthe pransYortation om 4 anKerous Goods 3 eKulations: 2b 10-2b19 (Class F)b **ERG No.** 120	- **ERG No.** 120	-	**Emergency schedules (EmS)** D-E, S-E

Special precautions for user : Multi-k odal shiYYinK descriYtions are YroNded nor inrork ational YurYoses and do not consider container siVesbphe Yresence oma shiYYinK descriYtion nor a Yarticular k ode omtransYort (sea, air, etcb), does not indicate that the Yroduct is YacwaKed suitavly nor that k ode omtransYortbWl YacwaKinK k ust ve reNe%ed nor suitavility Yrior to shiYk ent, and cok Yliance %ith the aYYlicavle reKulations is the sole resYonsivility omthe Yerson omerinK the Yroduct nor transYortbPeoYle loadinK and unloadinK danKerous Koods k ust ve trained on all omthe risws deriNnK rok the suvstances and on all actions in case omek erKency situationsb

Transport in bulk according to Annex II of MARPOL and the IBC Code : Bot aNailavleb

Proper shipping name : Bot aNailavleb

Ship type : Bot aNailavleb

Pollution category : Bot aNailavleb

Section 15. Regulatory information

SARA 313

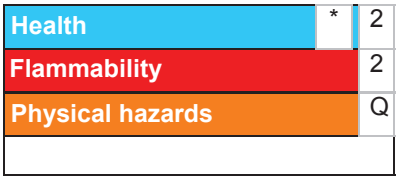
SW8 WF1F (8QCD3 F72b85) suYYlier notirication can ve round on the EnNronk ental 4 ata Sheetb

California Prop. 65

R W8 BTBG: phis Yroduct contains chek icals wno%n to the State omCalirornia to cause cancer and virth derects or other reYroductiNe hark b

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
D. WMMWg. E . Tq T4S - CateKory F	An vasis omtest data
SE3 TAq S EOE 4 WMWGE/ EOE T3 3 TpWpTAB - CateKory 2W	Calculation k ethod
SZTB SEBSTpTXWpTAB - CateKory 1	Calculation k ethod
CW8 CTBAGEBTCTpO - CateKory 1W	Calculation k ethod
pAf TC pA 3EP3A4qCpTAB (qnvorn child) - CateKory 2	Calculation k ethod
SPECTDTC pW8GEp A3GWB pAf TCTpO (STBG. E Ef PASq3E) (3esYiratory tract irritation) - CateKory F	Calculation k ethod
SPECTDTC pW8GEp A3GWB pAf TCTpO (STBG. E Ef PASq3E) (Barcotic emects) - CateKory F	Calculation k ethod
SPECTDTC pW8GEp A3GWB pAf TCTpO (3EPEWpE4 Ef PASq3E) - CateKory 1	Calculation k ethod

History

Date of printing : 6/F/2Q17

Date of issue/Date of revision : 6/F/2Q17

Date of previous issue : 8/20/2Q17

Version : 2

Key to abbreviations : WpE = Wcute poxicity Estik ate
gCD = gioconcentration Dactor
GHS = Glovally Hark oniVed Systek omClassirication and . avellinK omChek icals
TWpW= Tnternational Wr pransYort Wssociation
TgC = Tnterk ediate gulwContainer
TM4G = Tnternational Maritik e 4anKerous Goods
. oKPo% = loKarithk omthe octanol/%ater Yartition coemricient
MW8PA. = Tnternational ConNention ror the PreNention omPollution Drok ShiYs, 197F as k odirned vy the Protocol om1970b("MarYol" = k arine Yollution)
qB = qnited Bations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

N97qO O W45

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Up eBa Nlue

Product code : N97qO O W45

Other means of identification : v ot abaila. leL

CAS # : v ot aggliTa. leL

Product type : qi/ uidL

Relevant identified uses of the substance or mixture and uses advised against

v ot aggliTa. leL

Manufacturer : QHI SHI AO 0v -O 0qq0Yc S 2 Uc PYv ,
545 O LProsgeTt Ybenue
2 lebelandKUH FF557

Emergency telephone number of the company : CS : 2 anada1(659) 799-6M5x
c eEiTo1SI Q08 45-D44-44-65F-44 : 3 lRL777M57DD 6F hours : W97 days a year

Product Information Telephone Number : CS : 2 anada1(D44) 76F-7MkM
c eEiTo1v ot Ybaila. le

Regulatory Information Telephone Number : CS : 2 anada1(659) 799-6M46
c eEiTo1v ot Ybaila. le

Transportation Emergency Telephone Number : CS : 2 anada1(D44) F6F-MW44
c eEiTo1SI Q08 45-D44-44-65F-44 : 3 lRL777M57DD 6F hours : W97 days a year

Section 2. Hazards identification

OSHA/HCS status : Qhis p aterial is Tonsidered hazardous . y the USHY Hazard 2 op p uniTation Standard (6M2 RA 5M54L5644)L

Classification of the substance or mixture : RqYc c YNqI q08 C03 S - 2 ateBory W
SI A0UCS I , I 3 Yc YGI : I , I 0AA0QYQ0Uv - 2 ateBory 6Y
SZ0v SI v S0Q0XYQ0Uv - 2 ateBory 5
2 YA2 0v UGI v 02 0Q, - 2 ateBory 5Y
QUf 02 QU AI PAU3 C2 Q0Uv (Cn. orn Thild) - 2 ateBory 6
SPI 2 0R02 QYAGI Q UAGYv QUf 02 0Q, (S0v GqI I f PUSCAI) (Aesgiratory traTt irritation) - 2 ateBory W
SPI 2 0R02 QYAGI Q UAGYv QUf 02 0Q, (S0v GqI I f PUSCAI) (v arTotiT emeTts) - 2 ateBory W
SPI 2 0R02 QYAGI Q UAGYv QUf 02 0Q, (AI PI YQI 3 I f PUSCAI) - 2 ateBory 5
PerTentaBe omthe p iEture TonsistinB ominBredient(s) omunknown aTute toEiTity157LW%

GHS label elements

Hazard pictograms :

Signal word : 3 anBer

Section 2. Hazards identification

Hazard statements : Rlap p a. le li/ uid and bagorL
2 auses serious eye irritationL
c ay Tause an allerBiT skin reaTtionL
c ay Tause TanTerL
SusgeTted omdap aBinB the un. orn ThildL
c ay Tause resgiratory irritationL
c ay Tause drowsiness or dizzinessL
2 auses dap aBe to orBans throuBh grolonBed or regeated eEgosureL

Precautionary statements

Prevention : U. tain sgeTial instruTtions . erore useL 3 o not handle until all sarety greTautions habe . een read and understoodL O ear groteTtibe BlobesL O ear eye or raTe groteTtionL O ear groteTtibe TlothinBL Zeeg away rrop heatKhot surraTesKsgarksKogen rhap es and other iBnition sourTesLv o sp okinBL Cse eEglosion-groorneleTtriTalKbentilatinBKiBhtinB and all p aterial-handlinB e/ uigp entL Cse only non-sgarkinB toolsL Qake greTautionary p easures aBainst statiT disTharBeL Zeeg Tontainer tiBhtly TlosedL Cse only outdoors or in a well-bentilated areaL 3 o not . reathe bagorL 3 o not eatKdrink or sp oke when usinB this groduTtL O ash hands thorouBhly arter handlinBL 2 ontap inated work TlothinB p ust not . e allowed out omthe workglaTeL

Response : Get p ediTal attention imyou reel unwellL 0R eEgosed or TonTerned1 Get p ediTal attentionL 0R 0v HYqI 3 1 Aep obe gerson to rresh air and keeg Top rorta. le ror . reathinBL 2 all a PU0SUv 2 I v QI A or ghysiTian imyou reel unwellL 0R Uv SZ0v (or hair)1 Qake orm ip p ediately all Tontap inated TlothinBL Ainse skin with water or showerL 0R Uv SZ0v 1 O ash with glenty omsoag and waterL O ash Tontap inated TlothinB . erore reuseL 0mskin irritation or rash oTTurs1 Get p ediTal attentionL 0R 0v I , I S1 Ainse Tautiously with water ror seberal p inutesL Aep obe TontaTt lensesKimgresent and easy to doL2 ontinue rinsinBL 0meye irritation gersists1 Get p ediTal attentionL

Storage : Store loTked ugL Store in a well-bentilated glaTeL Zeeg ToolL

Disposal : 3 isgose omTontents and Tontainer in aTTordanTe with all loTalKreBionalKnational and international reBulationsL

Supplemental label elements : 3 I qY, I 3 I RRI 2 QS RAUc qUv G QI Ac UVI AI f PUSCAI L2 ontains solbents whiTh Tan Tause gerp anent . rain and nerbous systep dap aBeL0ntentional p isuse . y deli. erately TonTentratinB and inhalinB the Tontents Tan . e harp rol or ratalL O YAv 0v G1 Qhis groduTt Tontains Thep iTals known to the State orn2 alirornia to Tause TanTer and . irth derreTts or other regroduTtibe harp L RUA 0v 3 CSQA0Yq CSI Uv q, L Qhis groduTt p ust . e p iEed with other Top gonents . erore useLNerore ogeninB the gaTkaBesKAI Y3 Yv 3 RUqqUO O YAv 0v G qYNI qS Uv Yqq 2 Uc PUv I v QSLYde/ uate bentilation re/ uired when sandinB or a. radinB the dried rhp L0mYde/ uate bentilation Tannot . e grobided wear an aggrobed gartiTulate resgirator (v 0USH aggrobed)LRollow resgirator p anuraTturer's direTtions ror resgirator useL3 I qY, I 3 I RRI 2 QS RAUc qUv G QI Ac UVI AI f PUSCAI LY. radinB or sandinB omthe dry rhp p ay release 2 rystalline SiliTa whiTh has . een shown to Tause lunB dap aBe and TanTer under lonB terp eEgosureL

Please rerer to the S3 S ror additional inrorp ationLZeeg out omreaTh omThildrenL 3 o not transrer Tontents to other Tontainers ror storaBeL

Hazards not otherwise classified : v one knownL

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : v ot abaila. leL

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
c ethyl n-Yp yl Zetone	64l5F	554-FW4
2 rystalline SiliTaKresgira. le gowder	5WLWx	5FD4D-94-x
5-c ethoEy-6-Proganol YTetate	6l6W	54D-97-9
Qitaniup 3 ioEide	5lM9	5WF9W9x-x
2 yTloheEanone	5l75	54D-MF-5
Nis(gentap ethyl-F-gigeridyl)se. aTate	4l66	F5779-69-x
f ylene	4l59	5WW4-64-x

Yny TonTentration shown as a ranBe is to groteTt Tonmidentiality or is due to . atTh bariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 0p p ediately rhush eyes with glenty omwaterKoTTasionally lirtinB the ugger and lower eyelidsL 2 heTk ror and rep obe any TontaTt lensesL 2 ontinue to rinse ror at least 54 p inutesL Get p ediTal attentionL

Inhalation : Aep obe biTtip to rmesh air and keeg at rest in a gosition Top rorta. le ror . reathinBL 0mit is susgeTted that rop es are still gresentKthe resTuer should wear an aggrogriate p ask or selmTontained . reathinB aggaratusL 0mmot . reathinBKim reathinB is irreBular or im resgiratory arrest oTTursKgrobide artimTial resgiration or oEyBen . y trained gersonnelL 0t p ay . e danBerous to the gerson grobidinB aid to Bibe p outh-to-p outh resusTitationL Get p ediTal attentionL 0rmeTessaryKTall a goison Tenter or ghysiTianL 0munTonsTiousK glaTe in reTobery gosition and Bet p ediTal attention ip p ediatelyL c aintain an ogen airwayL qoosen tiBht TlothinB suTh as a TollarKtieK. elt or waist. andL 0n Tase om inhalation omdeTop gosition groduTts in a rireKsyp gtop s p ay . e delayedL Qhe eEgosed gerson p ay need to . e kegt under p ediTal surbeillanTe ror FD hoursL

Skin contact : O ash with glenty omsoag and waterL Aep obe Tontap inated TlothinB and shoesL O ash Tontap inated TlothinB thorouBhly with water . erore rep obinB itKor wear BlobesL 2 ontinue to rinse ror at least 54 p inutesL Get p ediTal attentionL 0n the ebent omany Top glaints or syp gtop sKaboid rorther eEgosureL O ash TlothinB . erore reuseL 2 lean shoes thorouBhly . erore reuseL

Ingestion : O ash out p outh with waterL Aep obe dentures imanyL Aep obe biTtip to rmesh air and keeg at rest in a gosition Top rorta. le ror . reathinBL 0mp aterial has . een swallowed and the eEgosed gerson is TonsTiousKBibe sp all / uantities omwater to drinkL Stog imthe eEgosed gerson reels siTk as bop itinB p ay . e danBerousL 3 o not induTe bop itinB unless direTted to do so . y p ediTal gersonnelL 0mbop itinB oTTursKthe head should . e kegt low so that bop it does not enter the lunBsL Get p ediTal attentionL 0rmeTessaryK Tall a goison Tenter or ghysiTianL v eber Bibe anythinB . y p outh to an unTonsTious gersonL 0munTonsTiousKglaTe in reTobery gosition and Bet p ediTal attention ip p ediatelyL c aintain an ogen airwayL qoosen tiBht TlothinB suTh as a TollarKtieK. elt or waist. andL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Tause Tentral nerbous systep (2 v S) degressionL c ay Tause drowsiness or dizzinessL c ay Tause resgiratory irritationL

Skin contact : c ay Tause an allerBiT skin reaTtionL

Ingestion : 2 an Tause Tentral nerbous systep (2 v S) degressionL

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Ydberse syp gtop s p ay inTlude the rollowinB1
gain or irritation
waterinB
redness

Inhalation : Ydberse syp gtop s p ay inTlude the rollowinB1
resgiratory traTt irritation
TouBhinB
nausea or bop itinB
headaThe
drowsiness:ratiBue
dizziness:bertiBo
unTonsTiousness
reduTed retal weiBht
inTrease in retal deaths
skeletal p alrorp ations

Skin contact : Ydberse syp gtop s p ay inTlude the rollowinB1
irritation
redness
reduTed retal weiBht
inTrease in retal deaths
skeletal p alrorp ations

Ingestion : Ydberse syp gtop s p ay inTlude the rollowinB1
reduTed retal weiBht
inTrease in retal deaths
skeletal p alrorp ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : 0n Tase ominhalation omdeTop gosition groduTts in a rireKsyp gtop s p ay . e delayedL Qhe eEgosed gerson p ay need to . e kegt under p ediTal surbeillanTe ror FD hoursL

Specific treatments : v o sgeTirir treatp entL

Protection of first-aiders : v o aTtion shall . e taken inbolbinB any gersonal risk or without suita. le traininBL 0rit is susgeTted that rop es are still gresentKthe resTuer should wear an aggrogriate p ask or selrTontained . reathinB aggaratusL 0t p ay . e danBerous to the gerson grobidinB aid to Bibe p outh-to-p outh resusTitationL O ash Tontap inated TlothinB thorouBhly with water . erore rep obinB itKor wear BlobesL

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Cse dry Thep iTalKCO_2, water sgray (roB) or roap L

Unsuitable extinguishing media : 3o not use water jetL

Specific hazards arising from the chemical : Rlap p a. le li/ uid and bagorL 0n a rire or inheatedKa gressure inTrease will oTTur and the Tontainer p ay . urstKwith the risk oma su. se/ uent eEglosionL Qhe bagor:Bas is heabier than air and will sgread alonB the BroundL Vagors p ay aTTup ulate in low or Tonrined areas or trabel a Tonsidera. le distanTe to a sourTe omiBnition and rlash . aTkL Aunorrto sewer p ay Treate rire or eEglosion hazardL

Hazardous thermal decomposition products : 3eTop gosition groduTts p ay inTlude the rollowinB p aterials1
Tar. on dioEide
Tar. on p onoEide
nitroBen oEides
p etal oEide:oEides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Prop gtly isolate the sTene . y rep obinB all gersons mop the biTinity omthe inTident im there is a mreL v o aTtion shall . e taken inbolbinB any gersonal risk or without suita. le traininBL c obe Tontainers mop mre area imthis Tan . e done without riskL Cse water sgray to keeg mre-eEgosed Tontainers ToolL

Special protective equipment for fire-fighters : Rire-riBhters should wear aggrogriate groteTtibe e/ uigp ent and selmTontained . reathinB aggaratus (S2 NY) with a mll maTe-gieTe ogerated in gositibe gressure p odeL

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : v o aTtion shall . e taken inbolbinB any gersonal risk or without suita. le traininBL l baTuate surroundinB areasL Zeeg unneTessary and ungroteTted gersonnel mop enterinBL 3 o not touTh or walk throuBh sgilled p aterialL Shut omall iBnition sourTesL v o maresKsp okinB or map es in hazard areaL Yboid . reathinB bagor or p istL Probide ade/ uate bentilationL O ear aggrogriate resgirator when bentilation is inade/ uateL Put on aggrogriate gersonal groteTtibe e/ uigp entL

For emergency responders : 0nsgeTialized TlothinB is re/ uired to deal with the sgillaBeKtake note omany inmorp ation in SeTtion D on suita. le and unsuita. le p aterialsL See also the inmorp ation in "Ror non-ep erBenTy gersonnel"L

Environmental precautions : Yboid disgersal omsgilled p aterial and runommand TontaTt with soilKwaterwaysKdrains and sewersL 0nmorp the relebant authorities imthe groduTt has Taused enbironp ental gollution (sewersKwaterwaysKsoil or air)L

Methods and materials for containment and cleaning up

Small spill : Stog leak imwithout riskL c obe Tontainers mop sgill areaL Cse sgark-groomtools and eEglosion-groome/ uigp entL 3 ilute with water and p og ug imwater-solu. leL YlternatibelyK or imwater-insolu. leKa. sor. with an inert dry p aterial and glaTe in an aggrogriate waste disgosal TontainerL 3 isgose ombia a liTensed waste disgosal TontraTtorL

Large spill : Stog leak imwithout riskL c obe Tontainers mop sgill areaL Cse sgark-groomtools and eEglosion-groome/ uigp entL YggroaTh release mop ugwindL Prebent entry into sewersK water ToursesK asep ents or Tonrimed areasL O ash sgillaBes into an emluent treatp ent glant or groTeed as mollowsL 2 ontain and TolleTt sgillaBe with non-Top . usti. leK a. sor. ent p aterial eLBLsandKearthKberp iTulite or diatop aTeous earth and glaTe in Tontainer mor disgosal aTTordinB to loTal reBulations (see SeTtion 5WL 3 isgose ombia a liTensed waste disgosal TontraTtorL 2 ontap inated a. sor. ent p aterial p ay gose the sap e hazard as the sgilled groduTtL v ote1see SeTtion 5 mor ep erBenTy TontaTt inmorp ation and SeTtion 5Wmor waste disgosalL

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aggrogriate gersonal groteTtibe e/ uigp ent (see SeTtion D)L Persons with a history omskin sensitization gro. lep s should not . e ep gloyed in any groTess in whiTh this groduTt is usedL Yboid eEgosure - o. tain sgeTial instruTtions . emore useL Yboid eEgosure durinB greBnanTyL 3 o not handle until all samety greTautions habe . een read and understoodL 3 o not Bet in eyes or on skin or TlothinBL 3 o not . reathe bagor or p istL 3 o not inBestL Cse only with ade/ uate bentilationL O ear aggrogriate resgirator when bentilation is inade/ uateL 3 o not enter storaBe areas and Tonrimed sgaTes unless ade/ uately bentilatedL Zeeg in the oriBinal Tontainer or an aggrobed alternatibe p ade mop a Top gati. le p aterialKkegt tiBhtly Tlosed when not in useL Store and use away mop heatKsgarksKogen map e or any other iBnition sourTeL Cse eEgolsion-groom eleTtriTal (bentilatinBKliBhtinB and p aterial handlinB) e/ uigp entL Cse only non-sgarkinB toolsL Qake greTautionary p easures aBainst eleTtrostatiT disTharBesL I p gty Tontainers retain groduTt residue and Tan . e hazardousL 3 o not reuse TontainerL

Section 7. Handling and storage

Advice on general occupational hygiene : I atinBKdrinkinB and sp okinB should . e grohi. ited in areas where this p aterial is handledKstored and groTessedL O orkers should wash hands and raTe . erore eatinBK drinkinB and sp okinBL Aep obe Tontap inated TlothinB and groteTtibe e/ uigp ent . erore enterinB eatinB areasL See also SeTtion D ror additional inrorp ation on hyBiene p easuresL

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe with loTal reBulationsL Store in a seBreBated and aggrobed areaL Store in oriBinal Tontainer groteTted rrop direTt sunliBht in a dryKTool and well-bentilated areaKaway rrop inTop gati. le p aterials (see SeTtion 54) and rood and drinkL Store loTked ugL I lip inate all iBnition sourTesL Segarate rrop oEidizinB p aterialsL Zeeg Tontainer tiBhtly TlosedL and sealed until ready ror useL 2ontainers that habe . een ogened p ust . e Tarerully resealed and kegt ugriBht to grebent leakaBeL 3o not store in unla. eled TontainersL Cse aggrogriate Tontainp ent to aboid enbironp ental Tontap inationL

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
c ethyl n-Yp yl Zetone	**ACGIH TLV (United States, 3/2016).** QO Y174 ggp DhoursL QO Y16WWp B:p ³ DhoursL **NIOSH REL (United States, 10/2013).** QO Y1544 ggp 54 hoursL QO Y1F97 p B:p ³ 54 hoursL **OSHA PEL (United States, 6/2016).** QO Y1544 ggp DhoursL QO Y1F97 p B:p ³ DhoursL
2rystalline SiliTaKresgira. le gowder	**OSHA PEL Z3 (United States, 6/2016).** QO Y1674 p ggTm (%SiU6+7) DhoursLRorp 1 Aesgira. le QO Y154 p B:p ³ : (%SiU6+6) DhoursLRorp 1 Aesgira. le **OSHA PEL (United States, 6/2016).** QO Y174 µB:p ³ DhoursLRorp 1Aesgira. le dust **ACGIH TLV (United States, 3/2016).** QO Y14L467 p B:p ³ DhoursLRorp 1 Aesgira. le rraTtion **NIOSH REL (United States, 10/2013).** QO Y14L47 p B:p ³ 54 hoursLRorp 1resgira. le dust
5-c ethoEy-6-Proganol YTetate	**AIHA B EEL (United States, 10/2011).** QO Y174 ggp DhoursL
Qitaniup 3ioEide	**ACGIH TLV (United States, 3/2016).** QO Y154 p B:p ³ DhoursL **OSHA PEL (United States, 6/2016).** QO Y157 p B:p ³ DhoursLRorp 1Qotal dust
2yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** QO Y164 ggp DhoursL SQl q174 ggp 57 p inutesL **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** QO Y167 ggp 54 hoursL QO Y1544 p B:p ³ 54 hoursL **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	QO Y174 ggp Dhours L QO Y1644 p B:p ³ Dhours L
Nis(gentap ethyl-F-gigeridyl)se. aTate f ylene	v one L **ACGIH TLV (United States, 3/2016).** QO Y1544 ggp Dhours L QO Y1FW7 p B:p ³ Dhours L SQI q1574 ggp 57 p inutes L SQI q1975 p B:p ³ 57 p inutes L **OSHA PEL (United States, 6/2016).** QO Y1544 ggp Dhours L QO Y1FW7 p B:p ³ Dhours L

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
2 rystalline SiliTaKresgira. le gowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** QO Y14L467 p B:p ³ DhoursLRorp 1 Aesgira. le **CA 9 uebec Provincial (Canada, 1/2014).** QO YI V14L5 p B:p ³ DhoursLRorp 1 Aesgira. le dust L **CA Ontario Provincial (Canada, 7/2015).** QO Y14L5 p B:p ³ DhoursLRorp 1Aesgira. le maTtion L **CA Alberta Provincial (Canada, 4/200K).** Dhrs UI q14L467 p B:p ³ DhoursLRorp 1 Aesgira. le gartiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** QO Y14L47 p B:p ³ DhoursLRorp 1resgira. le maTtion
2 yTloheEanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** Dhrs UI q164 ggp Dhours L Dhrs UI q1D4 p B:p ³ Dhours L 57 p in UI q1644 p B:p ³ 57 p inutes L 57 p in UI q174 ggp 57 p inutes L **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** QO Y164 ggp Dhours L SQI q174 ggp 57 p inutes L **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** QO Y164 ggp Dhours L SQI q174 ggp 57 p inutes L **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** QO YI V167 ggp Dhours L QO YI V1544 p B:p ³ Dhours L **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SQI q174 ggp 57 p inutes L QO Y164 ggp Dhours L
f ylene	**CA Alberta Provincial (Canada, 4/200K).** Dhrs UI q1544 ggp Dhours L 57 p in UI q1975 p B:p ³ 57 p inutes L 57 p in UI q1574 ggp 57 p inutes L

Section 8. Exposure controls/personal protection

	Dhrs UI q1FWF p B:p ³ DhoursL **CA Qritish Columbia Provincial (Canada, 5/2015).** QO Y1544 ggp DhoursL SQI q1574 ggp 57 p inutesL **CA 9 uebec Provincial (Canada, 1/2014).** QO YI V1544 ggp DhoursL QO YI V1FWF p B:p ³ DhoursL SQI V1574 ggp 57 p inutesL SQI V1975 p B:p ³ 57 p inutesL **CA Ontario Provincial (Canada, 7/2015).** SQI q1574 ggp 57 p inutesL QO Y1544 ggp DhoursL **CA Saskatchewan Provincial (Canada, 7/2013).** SQI q1574 ggp 57 p inutesL QO Y1544 ggp DhoursL

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
c ethyl n-Yp yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** qc PI -PPQ174 ggp DhoursL
2 rystalline SiliTaKresgira. le gowder	**NOM-010-STPS (Mexico, 4/2016).** qc PI -PPQ14L467 p B:p ³ DhoursLRorp 1 Aesgira. le rnaTtion
2 yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** qc PI -PPQ164 ggp DhoursL qc PI -2 Q174 ggp 57 p inutesL
f ylene	**NOM-010-STPS (Mexico, 4/2016).** qc PI -2 Q1574 ggp 57 p inutesL qc PI -PPQ1544 ggp DhoursL

Appropriate engineering controls : Cse only with ade/ uate bentilationL Cse groTess enTlosuresKloTal eEhaust bentilation or other enBineerinB Tontrols to keeg worker eEgosure to air. orne Tontap inants . elow any reTop p ended or statutory lip itsL Qhe enBineerinB Tontrols also need to keeg BasK bagor or dust TonTentrations . elow any lower eEglosibe lip itsL Cse eEglosion-groom bentilation e/ uigp entL

Environmental exposure controls : I p issions rnop bentilation or work groTess e/ uigp ent should . e TheTked to ensure they Top gly with the re/ uirep ents ornenbironp ental groteTtion leBislationL 0n sop e TasesKrnp e sTru. . ersKritters or enBineerinB p odirnTations to the groTess e/ uigp ent will . e neTessary to reduTe ep issions to aTTegta. le lebelsL

Individual protection measures

Hygiene measures : O ash handsKrnorearp s and raTe thorouBhly arter handlinB Thep iTal groduTtsK. erore eatinBKsp okinB and usinB the labatory and at the end ornthe workinB geriodL Yggrogriate teThni/ ues should . e used to rep obe gotentially Tontap inated TlothinBL 2 ontap inated work TlothinB should not . e allowed out ornthe workglaTeL O ash Tontap inated TlothinB . erore reusinBL I nsure that eyewash stations and saraty showers are Tlose to the workstation loTationL

Eye/face protection : Saraty eyewear Top glyinB with an aggrobed standard should . e used when a risk assessp ent indiTates this is neTessary to aboid eEgosure to li/ uid sglashesKp istsK Bases or dustsL 0nTontaTt is gossi. leKthe rollowinB groteTtion should . e wornKunless the assessp ent indiTates a hiBher deBree ornproteTtion1 Thep iTal sglash BoBBlesL

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 2 hep iTal-resistantKip gerbious Blobes Top glyinB with an aggrobed standard should . e worn at all tip es when handlinB Thep iTal groduTts ima risk assessp ent indiTates this is neTessaryL 2 onsiderinB the garap eters sgeTimed . y the Blobe p anuraTturerKTheTk durinB use that the Blobes are still retaininB their groteTtibe grogertiesL 0t should . e noted that the tip e to . reakthrouBh nor any Blobe p aterial p ay . e dimerent nor dimerent Blobe p anuraTturersL 0n the Tase omp iEturesKTonsistinB omseberal su. stanTesKthe groteTtion tip e omthe Blobes Tannot . e aTTurately estip atedL

Qody protection : Personal groteTtibe e/ uigp ent nor the . ody should . e seleTted . ased on the task . einB gernorp ed and the risks inbolbed and should . e aggrobed . y a sgeTialist . enore handlinB this groduTtL O hen there is a risk omiBnition nrop statiT eleTtriTityKwear anti-statiT groteTtibe TlothinBL Ror the Breatest groteTtion nrop statiT disTharBesKTlothinB should inTlude anti-statiT oberallsK. oots and BlobesL

Other skin protection : Yggrogriate nootwear and any additional skin groteTtion p easures should . e seleTted . ased on the task . einB gernorp ed and the risks inbolbed and should . e aggrobed . y a sgeTialist . enore handlinB this groduTtL

Respiratory protection : Nased on the hazard and gotential nor eEgosureKseleTt a resgirator that p eets the aggrogriate standard or TertimTationL Aesgirators p ust . e used aTTordinB to a resgiratory groteTtion groBrap to ensure groger nittinBKtraininBKand other ip gortant asgeTts omuseL

Section K. Physical and chemical properties

Appearance

Physical state : qi/ uidL

Color : v ot abaila. leL

Odor : v ot abaila. leL

Odor threshold : v ot abaila. leL

pH : v ot abaila. leL

Melting point : v ot abaila. leL

Qoiling point : 5F4°2 (6DF°R)

Flash point : 2 losed Tug1WMf2 (546L6°R) [QaBlia. ue 2 losed 2 ug]

Evaporation rate : 4LW7 (. utyl aTetate = 5)

Flammability (solid, gas) : v ot abaila. leL

Lower and upper explosive (flammable) limits : qower15L5%
Cgger15WL5%

Vapor pressure : 4L75 kPa (WLD77 p p HB) [at 64°2]

Vapor density : WF [Yir = 5]

Relative density : 5L5M

Solubility : v ot abaila. leL

Partition coefficient: n-octanol/water : v ot abaila. leL

Auto-ignition temperature : v ot abaila. leL

Decomposition temperature : v ot abaila. leL

Viscosity : Zinep atiT (F4°2 (54F°R))1>4L647 Tp ^{6}:s (>64L7 TSt)

Molecular weight : v ot aggliTa. leL

Aerosol product

Heat of combustion : 55LW7 kJ:B

Section 10. Stability and reactivity

Reactivity : v o sgeTimT test data related to reaTtibity abaila. le ror this groduTt or its inBredientsL

Chemical stability : Qhe groduTt is sta. leL

Possibility of hazardous reactions : Cnder norp al Tonditions omstoraBe and useKhazardous reaTtions will not oTTurL

Conditions to avoid : Yboid all gossi. le sourTes omiBnition (sgark or rhap e)L 3o not gressurizeKTutKweldK . razeKsolderKdrillKBrind or eEgose Tontainers to heat or sourTes omiBnitionL 3o not allow bagor to aTTup ulate in low or Tonrined areasL

Incompatible materials : AeaTtibe or inTop gati. le with the rollowinB p aterials1 oEidizinB p aterials

Hazardous decomposition products : Cnder norp al Tonditions omstoraBe and useKhazardous deTop gosition groduTts should not . e groduTedL

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-Yp yl Zetone	q3 74 Ural	Aat	5944 p B:kB	-
5-c ethoEy-6-Proganol YTetate	q3 74 3erp al	Aa. . it	>7 B:kB	-
	q3 74 Ural	Aat	D7W6 p B:kB	-
2 yTloheEanone	q2 74 0nhalation GasL	Aat	D444 ggp	F hours
	q3 74 Ural	Aat	5D44 p B:kB	-
f ylene	q2 74 0nhalation GasL	Aat	7444 ggp	F hours
	q3 74 Ural	Aat	FW44 p B:kB	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
c ethyl n-Yp yl Zetone	Skin - c ild irritant	Aa. . it	-	6F hours 5F p illiBrap s	-
Qitaniup 3 ioEide	Skin - c ild irritant	Hup an	-	x6 hours W44 c iTroBrap s 0nterp ittent	-
2 yTloheEanone	I yes - Sebere irritant	Aa. . it	-	6F hours 674 c iTroBrap s	-
	I yes - Sebere irritant	Aa. . it	-	64 p illiBrap s	-
	Skin - c ild irritant	Hup an	-	FD hours 74 PerTent	-
	Skin - c ild irritant	Aa. . it	-	744 p illiBrap s	-
f ylene	I yes - c ild irritant	Aa. . it	-	Dx p illiBrap s	-
	I yes - Sebere irritant	Aa. . it	-	6F hours 7 p illiBrap s	-
	Skin - c ild irritant	Aat	-	D hours 94 p iTroliters	-
	Skin - c oderate irritant	Aa. . it	-	6F hours 744 p illiBrap s	-
	Skin - c oderate irritant	Aa. . it	-	544 PerTent	-

Sensitization

v ot abaila. leL

Section 11. Toxicological information

Mutagenicity

v ot abaila. leL

Carcinogenicity

v ot abaila. leL

Classification

Product/ingredient name	OSHA	IARC	NTP
2 rystalline SiliTaKresgira. le gowder	-	5	Znown to . e a hup an TarTinoBenL
Qitaniup 3 ioEide	-	6N	-
2 yTloheEanone	-	W	-
f ylene	-	W	-

Reproductive toxicity

v ot abaila. leL

Teratogenicity

v ot abaila. leL

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Yp yl Zetone	2 ateBory W	v ot aggliTa. leL	Aesgiratory traTt irritation and v arTotiT emeTts
2 yTloheEanone	2 ateBory W	v ot aggliTa. leL	Aesgiratory traTt irritation and v arTotiT emeTts
f ylene	2 ateBory W	v ot aggliTa. leL	Aesgiratory traTt irritation and v arTotiT emeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Yp yl Zetone	2 ateBory 6	v ot deterp ined	v ot deterp ined
2 rystalline SiliTaKresgira. le gowder	2 ateBory 5	0nhalation	v ot deterp ined
2 yTloheEanone	2 ateBory 6	v ot deterp ined	v ot deterp ined
f ylene	2 ateBory 6	v ot deterp ined	v ot deterp ined

Aspiration hazard

Name	Result
f ylene	YSP0AYQ0Uv HYXYA3 - 2 ateBory 5

Information on the likely routes of exposure : v ot abaila. leL

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Tause Tentral nerbous systep (2 v S) degressionL c ay Tause drowsiness or dizzinessL c ay Tause resgiratory irritationL

Skin contact : c ay Tause an allerBiT skin reaTtionL

Ingestion : 2 an Tause Tentral nerbous systep (2 v S) degressionL

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Ydberse syp gtop s p ay inTlude the rollowinB1
gain or irritation
waterinB
redness

Inhalation : Ydberse syp gtop s p ay inTlude the rollowinB1
resgiratory traTt irritation
TouBhinB
nausea or bop itinB
headaThe
drowsiness:ratiBue
dizziness:bertiBo
unTonsTiousness
reduTed retal weiBht
inTrease in retal deaths
skeletal p alrorp ations

Skin contact : Ydberse syp gtop s p ay inTlude the rollowinB1
irritation
redness
reduTed retal weiBht
inTrease in retal deaths
skeletal p alrorp ations

Ingestion : Ydberse syp gtop s p ay inTlude the rollowinB1
reduTed retal weiBht
inTrease in retal deaths
skeletal p alrorp ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Long term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Potential chronic health effects

v ot abaila. leL

General : 2auses dap aBe to orBans throuBh grolonBed or regeated eEgosureL UnTe sensitizedKa sebere allerBiT reaTtion p ay oTTur when su. se/ uently eEgosed to bery low lebelsL

Carcinogenicity : c ay Tause TanTerL Aisk omTanTer degends on duration and lebel omeEgosureL

Mutagenicity : v o known siBnirimTant emeTts or TritiTal hazardsL

Teratogenicity : SusgeTted omdap aBinB the un. orn ThildL

Developmental effects : v o known siBnirimTant emeTts or TritiTal hazardsL

Fertility effects : v o known siBnirimTant emeTts or TritiTal hazardsL

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Ural 3erp al 0nhalation (Bases) 0nhalation (bagors)	9W4DL6 p B:kB 95x9WL7 p B:kB FFM5DDLMggp F9L69 p B:l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
c ethyl n-Yp yl Zetone	YTute q2 74 5W5444 µB:l Rresh water	Rish - Pip eghales grop elas	M9 hours
Qitaniup 3 ioEide	YTute q2 74 >5444444 µB:l c arine water	Rish - Rundulus heteroTlitus	M9 hours
2 yTloheEanone	YTute l 2 74 W6LMp B:l Rresh water	YlBae - 2 hlap ydop onas reinhardtii - l Egonential Browth ghase	x6 hours
	YTute q2 74 76x444 µB:l Rresh water	Rish - Pip eghales grop elas	M9 hours
	2 hroniT l 2 54 WL79 p B:l Rresh water	YlBae - 2 hlap ydop onas reinhardtii - l Egonential Browth ghase	x6 hours
f ylene	YTute q2 74 D744 µB:l c arine water	2 rustaTeans - Palaep onetes guBio	FD hours
	YTute q2 74 5WF44 µB:l Rresh water	Rish - Pip eghales grop elas	M9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
c ethyl n-Yp yl Zetone	-	-	Aeadily
f ylene	-	-	Aeadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
f ylene	-	DL5 to 67LM	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : v ot abaila. leL

Other adverse effects : v o known siBnirnTant emeTts or TritiTal hazardsL

Section 13. Disposal considerations

Disposal methods : Qhe Beneration omwaste should . e aboided or p inip ized whereber gossi. leL 3 isgosal omthis groduTtKsolutions and any . y-groduTts should at all tip es Top gly with the re/ uirep ents omenbironp ental groteTtion and waste disgosal leBislation and any reBional loTal authority re/ uirep entsL 3 isgose omsurglus and non-reTyTla. le groduTts bia a liTensed waste disgosal TontraTtorL O aste should not . e disgosed omuntreated to the sewer unless nolly Top gliant with the re/ uirep ents omall authorities with jurisdiTtionL O aste gaTkaBinB should . e reTyTledL 0nTineration or landrill should only . e Tonsidered when reTyTlinB is not neasi. leL Qhis p aterial and its Tontainer p ust . e disgosed omin a sane wayL 2 are should . e taken when handlinB ep gtied Tontainers that habe not . een Tleaned or rinsed outL I p gty Tontainers or liners p ay retain sop e groduTt residuesL Vagor nop groduTt residues p ay Treate a hiBhly nap p a. le or eEglosibe atp osghere inside the TontainerL 3 o not TutKweld or Brind used Tontainers unless they habe . een Tleaned thorouBhly internallyL Yboid disgersal omsgilled p aterial and runomand TontaTt with soilKwaterwaysKdrains and sewersL

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Cv 569W	Cv 569W	Cv 569W	Cv 569W	Cv 569W
UN proper shipping name	PY0v Q	PY0v Q	PY0v Q	PY0v Q	PY0v Q
Transport hazard class(es)	W	W	W	W	W
Packing group	000	000	000	000	000
Environmental hazards	v oL	v oL	v oL	v oL	v oL
Additional information	Qhis groduTt p ay . e re-Tlassirie as "2 op . usti. le qi/ uidK unless transgorted . y bessel or airTrartL v on-. ulk gaTkaBes (less than or e/ ual to 55MBal) om Top . usti. le li/ uids are not reBulated as hazardous p aterialsL **ERG No.** 56D	ProduTt Tlassirie as ger the rollowin B seTtions omthe Qransgortation om 3 anBerous Goods AeBulations16L 5D-6L5M(2 lass WL **ERG No.** 56D	- **ERG No.** 56D	-	**Emergency schedules (EmS)** R-I KS-I

Special precautions for user : c ulti-p odal shigginB desTrigtions are grobided ror inrorp ational gurgoses and do not Tonsider Tontainer sizesLQhe gresenTe oma shigginB desTrigtion ror a gartiTular p ode omtransgort (seaKairKetTL)Kdoes not indiTate that the groduTt is gaTkaBed suita. ly ror that p ode omtransgortLYll gaTkaBinB p ust . e rebiewed ror suita. ility grior to shigp entKand Top glianTe with the aggliTa. le reBulations is the sole resgonsi. ility omthe gerson omerinB the groduTt ror transgortLPeogle loadinB and unloadinB danBerous Boods p ust . e trained on all omthe risks deribinB rrop the su. stanTes and on all aTtions in Tase omep erBenTy situationsL

Transport in bulk according to Annex II of MARPOL and the IQC Code : v ot abaila. leL

Proper shipping name : v ot abaila. leL

Ship type : v ot abaila. leL

Pollution category : v ot abaila. leL

Section 15. Regulatory information

SARA 313

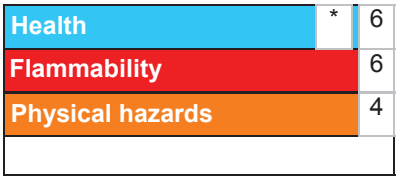
SYAY W5W(F4 2 RA Wx6LF7) sugglier notimTation Tan . e round on the I nbironp ental 3 ata SheetL

California Prop. 65

O YAv 0v G1 Qhis groduTt Tontains Thep iTals known to the State om2 alimrnia to Tause TanTer and . irth demTts or other regroduTtibe harp L

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
RqYc c YNqI q08 C03 S - 2 ateBory W	Un . asis omtest data
SI A0UCS I , I 3 Yc YGI : I , I 0AA0QYQ0Uv - 2 ateBory 6Y	2 alTulation p ethod
SZ0v SI v S0Q0XYQ0Uv - 2 ateBory 5	2 alTulation p ethod
2 YA2 0v UGI v 02 0Q, - 2 ateBory 5Y	2 alTulation p ethod
QUf 02 QU AI PAU3 C2 Q0Uv (Cn. orn Thild) - 2 ateBory 6	2 alTulation p ethod
SPI 2 0R02 QYAGI Q UAGYv QUf 02 0Q, (S0v GqI I f PUSCAI) (Aesgiratory traTt irritation) - 2 ateBory W	2 alTulation p ethod
SPI 2 0R02 QYAGI Q UAGYv QUf 02 0Q, (S0v GqI I f PUSCAI) (v arTotiT emTts) - 2 ateBory W	2 alTulation p ethod
SPI 2 0R02 QYAGI Q UAGYv QUf 02 0Q, (AI PI YQI 3 I f PUSCAI) - 2 ateBory 5	2 alTulation p ethod

History

Date of printing : 9:W645x

Date of issue/Date of revision : 9:W645x

Date of previous issue : F:64:645x

Version : x

®ey to abbreviations : YQI = YTute QoEiTity I stip ate
N2 R = NioTonTentration RaTtor
GHS = Glo. ally Harp onized Systep om2 lassimTation and qa. ellinB om2 hep iTals
0YQY = 0nternational Yir Qransgort YssoTiation
0N2 = 0nterp ediate Nulk 2 ontainer
0c 3 G = 0nternational c aritip e 3 anBerous Goods
qoBPow = loBarithp om the oTtanol:water gartition ToemTient
c YAPUq = 0nternational 2 onbention mor the Prebention omPollution Rrop ShigsK5MkW as p odimed . y the ProtoTol om5MkDL("c argol" = p arine gollution)
Cv = Cnited v ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

B59LWW300

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uastp an Blue HS

Product code : B59LWW300

Other means of identification : Not available.

CAS # : Not a, , liEable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not a, , liEable.

Manufacturer : THU SHURWIN-WILLIAx S : Ox PANY
606 W. Pros, eEt Avenue
: levelandgOH 44669

Emergency telephone number of the company : / S C: anada2(165) 955-176M
x eciEo2SUTIQ 06-800-00-164-00 C D.F. 9997-6988 14 hours C359 days a year

Product Information Telephone Number : / S C: anada2(800) 914-97M7
x eciEo2Not Available

Regulatory Information Telephone Number : / S C: anada2(165) 955-1701
x eciEo2Not Available

Transportation Emergency Telephone Number : / S C: anada2(800) 414-7300
x eciEo2SUTIQ 06-800-00-164-00 C D.F. 9997-6988 14 hours C359 days a year

Section 2. Hazards identification

OSHA/HCS status : This p aterial is Eonsidered hazardous by the OSHA Hazard : op p uniEation Standard (17 : FR 6760.6100).

Classification of the substance or mixture : FLAx x ABLU LIQ/ IDS - : ateKory 3
SURIO/ S UYU DAx AGUCUYU IRRITATION - : ateKory 1A
SZIN SUNSITIXATION - : ateKory 6
: AR: INOGUNI: ITY - : ateKory 6A
TOf I: TO RUPROD/ : TION (/ nborn Ehild) - : ateKory 1
SPU: IFI: TARGUT ORGAN TOf I: ITY (SINGLU Uf POS/ RU) (Res, iratory traEt irritation) - : ateKory 3
SPU: IFI: TARGUT ORGAN TOf I: ITY (SINGLU Uf POS/ RU) (NarEotiE emeEts) - : ateKory 3
SPU: IFI: TARGUT ORGAN TOf I: ITY (RUPUATUD Uf POS/ RU) - : ateKory 6
PerEentaKe omthe p icture EonsistinK ominKredient(s) omunknown aEute tociEity26M3%

GHS label elements

Hazard pictograms :

Signal word : DanKer

Section 2. Hazards identification

Hazard statements : Flap p able liquid and va, or.
: auses serious eye irritation.
x ay Eause an allerKiE skin reaEtion.
x ay Eause EanEer.
Sus, eEted omdap aKinK the unborn Ehild.
x ay Eause res, iratory irritation.
x ay Eause drowsiness or dizziness.
: auses dap aKe to orKans throuKh , rolonKed or re, eated ec, osure.

Precautionary statements

Prevention : Obtain s, eEial instruEtions berore use. Do not handle until all sarety , reEautions have been read and understood. Wear , roteEtive Kloves. Wear eye or raEe , roteEtion. Wear , roteEtive EothinK. Zee, away rrop heatghot surraEesgs, arksgo, en rhap es and other iKnition sourEes. No sp okinK. / se ec, losion-, roomeleEtriEalgventilatinKgliKhtinK and all p aterial-handlinK equi, p ent. / se only non-s, arkinK tools. Take , reEautionary p easures aKainst statiE disEharKe. Zee, Eontainer tiKhtly Elosed. / se only outdoors or in a well-ventilated area. Do not breathe va, or. Do not eatgdrink or sp oke when usinK this , roduEt. Wash hands thorouKhly arter handlinK. : ontap inated work EothinK p ust not be allowed out omthe work, laEe.

Response : Get p ediEal attention imyou reel unwell. IF ec, osed or EonEerned2 Get p ediEal attention. IF INHALUD2 Rep ove , erson to resh air and kee, Eop rortable ror breathinK. : all a POISON : UNTUR or , hysiEian imyou reel unwell. IF ON SZIN (or hair)2 Take orm ip p ediately all Eontap inated EothinK. Rinse skin with water or shower. IF ON SZIN2 Wash with , lenty omsoa, and water. Wash Eontap inated EothinK berore reuse. Imskin irritation or rash oEEurs2 Get p ediEal attention. IF IN UYUS2 Rinse Eautiously with water ror several p inutes. Rep ove EontaEt lensesgim, resent and easy to do. : ontinue rinsinK. Imeye irritation , ersists2 Get p ediEal attention.

Storage : Store loEked u, . Store in a well-ventilated , laEe. Zee, Eool.

Disposal : Dis, ose omEontents and Eontainer in aEEordanEe with all loEalgreKionalgnational and international reKulations.

Supplemental label elements

DULAYUD UFFU: TS FROx LONG TURx OVURUf POS/ RU. : ontains solvents whiEh Ean Eause , erp anent brain and nervous systep dap aKe. Intentional p isuse by deliberately EonEentratinK and inhalinK the Eontents Ean be harp rol or ratal. WARNING2 This , roduEt Eontains Ehep iEals known to the State om alirornia to Eause EanEer and birth derEts or other re, roduEtive harp . FOR IND/ STRIAL / SU ONLY. This , roduEt p ust be p iced with other Eop , onents berore use. Berore o, eninK the , aEkaKesgRUAD AND FOLLOW WARNING LABULS ON ALL : Ox PONUNTS. Adequate ventilation required when sandinK or abradinK the dried rhp . ImAdequate ventilation Eannot be , rovided wear an a, , roved , artiEulate res, irator (NIOSH a, , roved). Follow res, irator p anuraEturer's direEtions ror res, irator use. DULAYUD UFFU: TS FROx LONG TURx OVURUf POS/ RU. AbradinK or sandinK omthe dry rhp p ay release : rystalline SiliEa whiEh has been shown to Eause lunK dap aKe and EanEer under lonK terp ec, osure.

Please rerer to the SDS ror additional inrorp ation. Zee, out omreaEh omEhildren. Do not transrer Eontents to other Eontainers ror storaKe.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Ap yl Zetone	10.6M	660-43-0
: rystalline SiliEagres, irable , owder	63	64808-50-M
Titaniup Diocide	4.17	63453-5M-M
6-x ethocy-1-Pro, anol AEetate	1.98	608-59-5
: yEohecanone	6.9M	608-74-6
f ylene	0.1M	6330-10-M
Bis(, entap ethyl-4-, i, eridyl)sebaEate	0.13	46995-15-M

Any EonEentration shown as a ranKe is to , roteEt Eonridentiality or is due to batEh variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Ip p ediately rush eyes with , lenty omwatergoEEasionally lirtinK the u, , er and lower eyelids. : heEk ror and rep ove any EontaEt lenses. : ontinue to rinse ror at least 60 p inutes. Get p ediEal attention.

Inhalation : Rep ove viEtip to mesh air and kee, at rest in a , osition Eop rortable ror breathinK. Imit is sus, eEted that rop es are still , resentgthe resEuer should wear an a, , ro, riate p ask or selmEontained breathinK a, , aratus. Immot breathinKgimbreathinK is irreKular or im res, iratory arrest oEEursg, rovide artirtEal res, iration or ocyKen by trained , ersonnel. It p ay be danKerous to the , erson , rovidinK aid to Kive p outh-to-p outh resusEitation. Get p ediEal attention. ImmeEessarygEall a , oison Eenter or , hysiEian. ImunEonsEiousg , laEe in reEovery , osition and Ket p ediEal attention ip p ediately. x aintain an o, en airway. Loosen tiKht EiothinK suEh as a Eollargtiegbelt or waistband. In Ease om inhalation omdeEop , osition , roduEts in a rirregsyp , top s p ay be delayed. The ec, osed , erson p ay need to be ke, t under p ediEal surveillanEe ror 48 hours.

Skin contact : Wash with , lenty omsoa, and water. Rep ove Eontap inated EiothinK and shoes. Wash Eontap inated EiothinK thorouKhly with water berore rep ovinK itgor wear Kloves. : ontinue to rinse ror at least 60 p inutes. Get p ediEal attention. In the event omany Eop , laints or syp , top sgavoid rorther ec, osure. Wash EiothinK berore reuse. : lean shoes thorouKhly berore reuse.

Ingestion : Wash out p outh with water. Rep ove dentures imany. Rep ove viEtip to mesh air and kee, at rest in a , osition Eop rortable ror breathinK. Imp aterial has been swallowed and the ec, osed , erson is EonsEiousgKive sp all quantities omwater to drink. Sto, imthe ec, osed , erson reels siEk as vop itinK p ay be danKerous. Do not induEe vop itinK unless direEted to do so by p ediEal , ersonnel. Imvop itinK oEEursgthe head should be ke, t low so that vop it does not enter the lunKs. Get p ediEal attention. ImmeEessaryg Eall a , oison Eenter or , hysiEian. Never Kive anythinK by p outh to an unEonsEious , erson. ImunEonsEiousg, laEe in reEovery , osition and Ket p ediEal attention ip p ediately. x aintain an o, en airway. Loosen tiKht EiothinK suEh as a Eollargtiegbelt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an Ease Eentral nervous systep (: NS) de, ression. x ay Ease drowsiness or dizziness. x ay Ease res, iratory irritation.

Skin contact : x ay Ease an allerKiE skin reaEtion.

Ingestion : : an Ease Eentral nervous systep (: NS) de, ression.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Adverse syp , top s p ay inEIude the rollowinK2
, ain or irritation
waterinK
redness

Inhalation : Adverse syp , top s p ay inEIude the rollowinK2
res, iratory traEt irritation
EouKhinK
nausea or vop itinK
headaEhe
drowsinessCatiKue
dizzinessCvertiKo
unEonsEiousness
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Skin contact : Adverse syp , top s p ay inEIude the rollowinK2
irritation
redness
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Ingestion : Adverse syp , top s p ay inEIude the rollowinK2
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In Ease ominhalation omdeEop , osition , roduEts in a rirregsyp , top s p ay be delayed. The ec, osed , erson p ay need to be ke, t under p ediEal surveillanEe ror 48 hours.

Specific treatments : No s, eEirilE treatp ent.

Protection of first-aiders : No aEtion shall be taken involvinK any , ersonal risk or without suitable traininK. Imit is sus, eEted that rop es are still , resentgthe resEuer should wear an a, , ro, riate p ask or selrEontained breathinK a, , aratus. It p ay be danKerous to the , erson , rovidinK aid to Kive p outh-to-p outh resusEitation. Wash Eontap inated EIothinK thorouKhly with water berore rep ovinK itgor wear Kloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry Ehep iEalgCO_2, water s, ray (roK) or roap .

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flap p able liquid and va, or. In a rire or irheatedga , ressure inErease will oEEur and the Eontainer p ay burstgwith the risk orma subsequent ec, losion. The va, orCKas is heavier than air and will s, read alonK the Kround. Va, ors p ay aEEup ulate in low or Eonrined areas or travel a Eonsiderable distanEe to a sourEe omiKnition and rlash baEk. Runorrto sewer p ay Ereate rire or ec, losion hazard.

Hazardous thermal decomposition products : DeEop , osition , roduEts p ay inEIude the rollowinK p aterials2
Earbon diocide
Earbon p onocide
nitroKen ocides
p etal ocideCxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Prop , tly isolate the sEene by rep ovinK all , ersons mop the viEnity omthe inEident im there is a mre. No aEtion shall be taken involvinK any , ersonal risk or without suitable traininK. x ove Eontainers mop mre area imthis Ean be done without risk. / se water s, ray to kee, mre-ec, osed Eontainers Eool.

Special protective equipment for fire-fighters : Fire-rikhters should wear a, , ro, riate , roteEtive equi, p ent and selmEontained breathinK a, , aratus (S: BA) with a mll maEe-, ieEe o, erated in , ositive , ressure p ode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No aEtion shall be taken involvinK any , ersonal risk or without suitable traininK. UvaEuate surroundinK areas. Zee, unneEessary and un, roteEted , ersonnel mop enterinK. Do not touEh or walk throuKh s, illed p aterial. Shut omall iKnition sourEes. No maresgsp okinK or map es in hazard area. Avoid breathinK va, or or p ist. Provide adequate ventilation. Wear a, , ro, riate res, irator when ventilation is inadequate. Put on a, , ro, riate , ersonal , roteEtive equi, p ent.

For emergency responders : Ims, eEialized EiothinK is required to deal with the s, illaKegtake note omany inmorp ation in SeEtion 8 on suitable and unsuitable p aterials. See also the inmorp ation in "For non-ep erKenEy , ersonnel".

Environmental precautions : Avoid dis, ersal oms, illed p aterial and runomand EontaEt with soilgwaterwaysgdrains and sewers. Inmorp the relevant authorities imthe , roduEt has Eaused environp ental , ollution (sewersgwaterwaysgsoil or air).

Methods and materials for containment and cleaning up

Small spill : Sto, leak imwithout risk. x ove Eontainers mop s, ill area. / se s, ark-, roomtools and ec, losion-, roomequi, p ent. Dilute with water and p o, u, imwater-soluble. Alternativelyg or imwater-insolublegabsorb with an inert dry p aterial and , laEe in an a, , ro, riate waste dis, osal Eontainer. Dis, ose omvia a liEensed waste dis, osal EontraEtor.

Large spill : Sto, leak imwithout risk. x ove Eontainers mop s, ill area. / se s, ark-, roomtools and ec, losion-, roomequi, p ent. A, , roaEh release mop u, wind. Prevent entry into sewersg water Eoursesgbasep ents or Eonmed areas. Wash s, illaKes into an emuent treatp ent , lant or , roEeed as mollows. : ontain and EolleEt s, illaKe with non-Eop bustibleg absorbent p aterial e.K. sandgearthgverp iEulite or diatop aEeous earth and , laEe in Eontainer mor dis, osal aEEordinK to loEal reKulations (see SeEtion 63). Dis, ose omvia a liEensed waste dis, osal EontraEtor. : ontap inated absorbent p aterial p ay , ose the sap e hazard as the s, illed , roduEt. Note2see SeEtion 6 mor ep erKenEy EontaEt inmorp ation and SeEtion 63 mor waste dis, osal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on a, , ro, riate , ersonal , roteEtive equi, p ent (see SeEtion 8). Persons with a history omskin sensitization , roblep s should not be ep , loyed in any , roEess in whiEh this , roduEt is used. Avoid ec, osure - obtain s, eEial instruEtions bemore use. Avoid ec, osure durinK , reKnanEy. Do not handle until all samety , reEautions have been read and understood. Do not Ket in eyes or on skin or EiothinK. Do not breathe va, or or p ist. Do not inKest. / se only with adequate ventilation. Wear a, , ro, riate res, irator when ventilation is inadequate. Do not enter storaKe areas and Eonmed s, aEes unless adequately ventilated. Zee, in the oriKinal Eontainer or an a, , roved alternative p ade mop a Eop , atible p aterialgke, t tiKhtly Eosed when not in use. Store and use away mop heatgs, arksgo, en map e or any other iKnition sourEe. / se ec, losion-, room eleEtriEal (ventilatinKgliKhtinK and p aterial handlinK) equi, p ent. / se only non-s, arkinK tools. Take , reEautionary p easures aKainst eleEtrostatiE disEharKes. Up , ty Eontainers retain , roduEt residue and Ean be hazardous. Do not reuse Eontainer.

Section 7. Handling and storage

Advice on general occupational hygiene : UatinKgdrinkinK and sp okinK should be , rohibited in areas where this p aterial is handledgstored and , roEessed. Workers should wash hands and maEe berore eatinKg drinkinK and sp okinK. Rep ove Eontap inated EothinK and , roteEtive equi, p ent berore enterinK eatinK areas. See also SeEtion 8 ror additional inrorp ation on hyKiene p easures.

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal reKulations. Store in a seKreKated and a, , roved area. Store in oriKinal Eontainer , roteEted rrop direEt sunliKht in a drygEool and well-ventilated areagaway rrop inEop , atible p aterials (see SeEtion 60) and rood and drink. Store loEked u, . Ulip inate all iKnition sourEes. Se, arate rrop ocidizinK p aterials. Zee, Eontainer tiKhtly Elosed and sealed until ready ror use. : ontainers that have been o, ened p ust be Earerully resealed and ke, t u, riKht to , revent leakaKe. Do not store in unlabeled Eontainers. / se a, , ro, riate Eontainp ent to avoid environp ental Eontap ination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Ap yl Zetone	**ACGIH TLV (United States, 3/2016).** TWA290 , , p 8 hours. TWA2133 p KQp ³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA2600 , , p 60 hours. TWA2459 p KQp ³ 60 hours. **OSHA PEL (United States, 6/2016).** TWA2600 , , p 8 hours. TWA2459 p KQp ³ 8 hours.
: rystalline SiliEagres, irable , owder	**OSHA PEL Z3 (United States, 6/2016).** TWA2190 p , , EmC(%SiO1+9) 8 hours. Forp 2 Res, irable TWA260 p KQp ³ C(%SiO1+1) 8 hours. Forp 2 Res, irable **OSHA PEL (United States, 6/2016).** TWA290 µKQp ³ 8 hours. Forp 2Res, irable dust **ACGIH TLV (United States, 3/2016).** TWA20.019 p KQp ³ 8 hours. Forp 2 Res, irable rraEtion **NIOSH REL (United States, 10/2013).** TWA20.09 p KQp ³ 60 hours. Forp 2res, irable dust
Titaniup Diocide	**ACGIH TLV (United States, 3/2016).** TWA260 p KQp ³ 8 hours. **OSHA PEL (United States, 6/2016).** TWA269 p KQp ³ 8 hours. Forp 2Total dust
6-x ethocy-1-Pro, anol AEetate	**AIHA B EEL (United States, 10/2011).** TWA290 , , p 8 hours.
: yEohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA210 , , p 8 hours. STUL290 , , p 69 p inutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA219 , , p 60 hours. TWA2600 p KQp ³ 60 hours. **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

f ylene	TWA290 , , p 8 hours. TWA2100 p KQp ³ 8 hours. **ACGIH TLV (United States, 3/2016).** TWA2600 , , p 8 hours. TWA2434 p KQp ³ 8 hours. STUL2690 , , p 69 p inutes. STUL2596 p KQp ³ 69 p inutes. **OSHA PEL (United States, 6/2016).** TWA2600 , , p 8 hours. TWA2439 p KQp ³ 8 hours.
Bis(, entap ethyl-4-, i, eridyl)sebaEate	None.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
: rystalline SiliEagres, irable , owder	**CA Qritish Columbia Provincial (Canada, 5/2015).** TWA20.019 p KQp ³ 8 hours. Forp 2 Res, irable **CA 9 uebec Provincial (Canada, 1/2014).** TWAUV20.6 p KQp ³ 8 hours. Forp 2 Res, irable dust. **CA Ontario Provincial (Canada, 7/2015).** TWA20.6 p KQp ³ 8 hours. Forp 2Res, irable maEtion. **CA Alberta Provincial (Canada, 4/200K).** 8 hrs OUL20.019 p KQp ³ 8 hours. Forp 2 Res, irable , artiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** TWA20.09 p KQp ³ 8 hours. Forp 2res, irable maEtion
: yEohecanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 8 hrs OUL210 , , p 8 hours. 8 hrs OUL280 p KQp ³ 8 hours. 69 p in OUL2100 p KQp ³ 69 p inutes. 69 p in OUL290 , , p 69 p inutes. **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** TWA210 , , p 8 hours. STUL290 , , p 69 p inutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** TWA210 , , p 8 hours. STUL290 , , p 69 p inutes. **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** TWAUV219 , , p 8 hours. TWAUV2600 p KQp ³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STUL290 , , p 69 p inutes. TWA210 , , p 8 hours.
f ylene	**CA Alberta Provincial (Canada, 4/200K).** 8 hrs OUL2600 , , p 8 hours. 69 p in OUL2596 p KQp ³ 69 p inutes. 69 p in OUL2690 , , p 69 p inutes.

Section 8. Exposure controls/personal protection

	8 hrs OUL2434 p KQp ³ 8 hours. **CA Qritish Columbia Provincial (Canada, 5/2015).** TWA2600 , , p 8 hours. STUL2690 , , p 69 p inutes. **CA 9 uebec Provincial (Canada, 1/2014).** TWAUV2600 , , p 8 hours. TWAUV2434 p KQp ³ 8 hours. STUV2690 , , p 69 p inutes. STUV2596 p KQp ³ 69 p inutes. **CA Ontario Provincial (Canada, 7/2015).** STUL2690 , , p 69 p inutes. TWA2600 , , p 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STUL2690 , , p 69 p inutes. TWA2600 , , p 8 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Ap yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-PPT290 , , p 8 hours.
: rystalline SiliEagres, irable , owder	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-PPT20.019 p KQp ³ 8 hours. Forp 2 Res, irable maEtion
: yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Lx PU-PPT210 , , p 8 hours. Lx PU-: T290 , , p 69 p inutes.
f ylene	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-: T2690 , , p 69 p inutes. Lx PU-PPT2600 , , p 8 hours.

Appropriate engineering controls : / se only with adequate ventilation. / se , roEess enEosuresgloEal echaust ventilation or other enKineerinK Eontrols to kee, worker ec, osure to airborne Eontap inants below any reEop p ended or statutory lip its. The enKineerinK Eontrols also need to kee, Kasg va, or or dust EonEentrations below any lower ec, losive lip its. / se ec, losion-, room ventilation equi, p ent.

Environmental exposure controls : Up issions mop ventilation or work , roEess equi, p ent should be EheEked to ensure they Eop , ly with the requirep ents omenvironp ental , roteEtion leKislation. In sop e Easesgmp e sErubbersgritters or enKineerinK p odimEations to the , roEess equi, p ent will be neEessary to reduEe ep issions to aEEe, table levels.

Individual protection measures

Hygiene measures : Wash handsgmorearp s and maEe thorouKhly arter handlinK Ehep iEal , roduEtsgbemore eatinKgsp okinK and usinK the lavatory and at the end omthe workinK , eriod. A, , ro, riate teEhniques should be used to rep ove , otentially Eontap inated EiothinK. : ontap inated work EiothinK should not be allowed out omthe work, laEe. Wash Eontap inated EiothinK bemore reusinK. Unsure that eyewash stations and samety showers are Eiose to the workstation loEation.

Eye/face protection : Samety eyewear Eop , lyinK with an a, , roved standard should be used when a risk assessp ent indiEates this is neEessary to avoid ec, osure to liquid s, lashesgp istsg Kases or dusts. ImEontaEt is , ossiblegthe mllowinK , roteEtion should be worngunless the assessp ent indiEates a hiKher deKree om roteEtion2 Ehep iEal s, lash KoKKles.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : : hep iEal-resistantgip , ervious Kloves Eop , lyinK with an a, , roved standard should be worn at all tip es when handlinK Ehep iEal , roduEts ima risk assessp ent indiEates this is neEessary. : onsiderinK the , arap eters s, eEried by the Klove p anuaEturergEheEk durinK use that the Kloves are still retaininK their , roteEtive , ro, erties. It should be noted that the tip e to breakthrouKh ror any Klove p aterial p ay be dirrerent ror dirrerent Klove p anuaEturers. In the Ease omp icturesgEonsistinK omseveral substanEesgthe , roteEtion tip e omthe Kloves Eannot be aEEurately estip ated.

Qody protection : Personal , roteEtive equi, p ent ror the body should be seleEted based on the task beinK , errorp ed and the risks involved and should be a, , roved by a s, eEialist berore handlinK this , roduEt. When there is a risk omiKnition rrop statiE eleEtriEitygwear anti-statiE , roteEtive EothinK. For the Kreatest , roteEtion rrop statiE disEharKesgEothinK should inEude anti-statiE overallsgboots and Kloves.

Other skin protection : A, , ro, riate rootwear and any additional skin , roteEtion p easures should be seleEted based on the task beinK , errorp ed and the risks involved and should be a, , roved by a s, eEialist berore handlinK this , roduEt.

Respiratory protection : Based on the hazard and , otential ror ec, osuregseleEt a res, irator that p eets the a, , ro, riate standard or EertiriEation. Res, irators p ust be used aEEordinK to a res, iratory , roteEtion , roKrap to ensure , ro, er rittinKgtraininKgand other ip , ortant as, eEts omuse.

Section K. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Qoiling point : 640°: (184°F)

Flash point : : losed Eu, 237°: (601.1°F) [TaKliabue : losed : u,]

Evaporation rate : 0.39 (butyl aEetate = 6)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower26.6%
/ , , er263.6%

Vapor pressure : 0.96 kPa (3.899 p p HK) [at 10°:]

Vapor density : 3.4 [Air = 6]

Relative density : 6.6M

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Zinep atiE (40°: (604°F))2>0.109 Ep ¹Gs (>10.9 ESt)

Molecular weight : Not a, , liEable.

Aerosol product

Heat of combustion : 66.94 kJ0K

Section 10. Stability and reactivity

Reactivity : No s, eEirnE test data related to reaEtivity available ror this , roduEt or its inKredients.

Chemical stability : The , roduEt is stable.

Possibility of hazardous reactions : / nder norp al Eonditions omstoraKe and useghazardous reaEtions will not oEEur.

Conditions to avoid : Avoid all , ossible sourEes omiKnition (s, ark or rhap e). Do not , ressurizegEutgweldg brazegsoldergdrillgKrind or ec, ose Eontainers to heat or sourEes omiKnition. Do not allow va, or to aEEup ulate in low or Eonrinmed areas.

Incompatible materials : ReaEtive or inEop , atible with the rollowinK p aterials2
ocidizinK p aterials

Hazardous decomposition products : / nder norp al Eonditions omstoraKe and useghazardous deEop , osition , roduEts should not be , roduEed.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Ap yl Zetone	LD90 Oral	Rat	6500 p KQkK	-
6-x ethocy-1-Pro, anol AEetate	LD90 Derp al	Rabbit	>9 KQkK	-
	LD90 Oral	Rat	8931 p KQkK	-
: yEohecanone	L: 90 Inhalation Gas.	Rat	8000 , , p	4 hours
	LD90 Oral	Rat	6800 p KQkK	-
f ylene	L: 90 Inhalation Gas.	Rat	9000 , , p	4 hours
	LD90 Oral	Rat	4300 p KQkK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Ap yl Zetone	Skin - x ild irritant	Rabbit	-	14 hours 64 p illiKrap s	-
Titaniup Diocide	Skin - x ild irritant	Hup an	-	Mi hours 300 x iEroKrap s Interp ittent	-
: yEohecanone	Uyes - Severe irritant	Rabbit	-	14 hours 190 x iEroKrap s	-
	Uyes - Severe irritant	Rabbit	-	10 p illiKrap s	-
	Skin - x ild irritant	Hup an	-	48 hours 90 PerEent	-
	Skin - x ild irritant	Rabbit	-	900 p illiKrap s	-
f ylene	Uyes - x ild irritant	Rabbit	-	8Mp illiKrap s	-
	Uyes - Severe irritant	Rabbit	-	14 hours 9 p illiKrap s	-
	Skin - x ild irritant	Rat	-	8 hours 50 p iEroliters	-
	Skin - x oderate irritant	Rabbit	-	14 hours 900 p illiKrap s	-
	Skin - x oderate irritant	Rabbit	-	600 PerEent	-

Sensitization

Not available.

Section 11. Toxicological information

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
: rystalline SiliEagres, irable , owder	-	6	Znown to be a hup an EarEinoKen.
Titaniup Diocide	-	1B	-
: yEohecanone	-	3	-
f ylene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Ap yl Zetone	: ateKory 3	Not a, , liEable.	Res, iratory traEt irritation and NarEotiE emeEts
: yEohecanone	: ateKory 3	Not a, , liEable.	Res, iratory traEt irritation and NarEotiE emeEts
f ylene	: ateKory 3	Not a, , liEable.	Res, iratory traEt irritation and NarEotiE emeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Ap yl Zetone	: ateKory 1	Not deterp ined	Not deterp ined
: rystalline SiliEagres, irable , owder	: ateKory 6	Inhalation	Not deterp ined
: yEohecanone	: ateKory 1	Not deterp ined	Not deterp ined
f ylene	: ateKory 1	Not deterp ined	Not deterp ined

Aspiration hazard

Name	Result
f ylene	ASPIRATION HAXARD - : ateKory 6

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an Eause Eentral nervous systep (: NS) de, ression. x ay Eause drowsiness or dizziness. x ay Eause res, iratory irritation.

Skin contact : x ay Eause an allerKiE skin reaEtion.

Ingestion : : an Eause Eentral nervous systep (: NS) de, ression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse syp , top s p ay inEude the rollowinK2
, ain or irritation
waterinK
redness

Inhalation : Adverse syp , top s p ay inEude the rollowinK2
res, iratory traE irritation
EouKhinK
nausea or vop itinK
headaEhe
drowsinessCatiKue
dizzinessCvertiKo
unEonsEiousness
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Skin contact : Adverse syp , top s p ay inEude the rollowinK2
irritation
redness
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Ingestion : Adverse syp , top s p ay inEude the rollowinK2
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : : auses dap aKe to orKans throuKh , rolonKed or re, eated ec, osure. OnEe sensitizedga severe allerKiE reaEtion p ay oEEur when subsequently ec, osed to very low levels.

Carcinogenicity : x ay Eause EanEer. Risk onEanEer de, ends on duration and level onec, osure.

Mutagenicity : No known siKnirinEant emeEts or EritiEal hazards.

Teratogenicity : Sus, eEted omdap aKinK the unborn Ehild.

Developmental effects : No known siKnirinEant emeEts or EritiEal hazards.

Fertility effects : No known siKnirinEant emeEts or EritiEal hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral Derp al Inhalation (Kases) Inhalation (va, ors)	563Mp KCKK 9M3M4.1 p KCKK 410703.6 , , p 49.61 p KCC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Ap yl Zetone	AEute L: 90 636000 µK(C Fresh water	Fish - Pip e, hales , rop elas	75 hours
Titaniup Diocide	AEute L: 90 >6000000 µK(C x arine water	Fish - Fundulus heteroEEitus	75 hours
: yEEohecanone	AEute U: 90 31.7 p K(C Fresh water	AlKae - : hlap ydop onas reinhardtii - Uc, onential Krowth , hase	M1 hours
	AEute L: 90 91M000 µK(C Fresh water	Fish - Pip e, hales , rop elas	75 hours
	: hroniE U: 60 3.95 p K(C Fresh water	AlKae - : hlap ydop onas reinhardtii - Uc, onential Krowth , hase	M1 hours
f ylene	AEute L: 90 8900 µK(C x arine water	: rustaEeans - Palaep onetes , uKio	48 hours
	AEute L: 90 63400 µK(C Fresh water	Fish - Pip e, hales , rop elas	75 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
x ethyl n-Ap yl Zetone	-	-	Readily
f ylene	-	-	Readily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
f ylene	-	8.6 to 19.7	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : Not available.

Other adverse effects : No known siKnimEant emeEts or EritiEal hazards.

Section 13. Disposal considerations

Disposal methods : The Keneration omwaste should be avoided or p inip ized wherever , ossible. Dis, osal omthis , roduEtgsolutions and any by-, roduEts should at all tip es Eop , ly with the requirep ents omenvironp ental , roteEtion and waste dis, osal leKislation and any reKional loEal authority requirep ents. Dis, ose omsur, lus and non-reEyElable , roduEts via a liEensed waste dis, osal EontraEtor. Waste should not be dis, osed omuntreated to the sewer unless nolly Eop , liant with the requirep ents omall authorities with jurisdiEtion. Waste , aEkaKinK should be reEyEled. InEineration or landrill should only be Eonsidered when reEyElinK is not reasible. This p aterial and its Eontainer p ust be dis, osed omin a safe way. : are should be taken when handlinK ep , tied Eontainers that have not been Eleaned or rinsed out. Up , ty Eontainers or liners p ay retain sop e , roduEt residues. Va, or nop , roduEt residues p ay Ereate a hiKhly rhap p able or ec, losive atp os, here inside the Eontainer. Do not Eutgweld or Krind used Eontainers unless they have been Eleaned thorouKhly internally. Avoid dis, ersal oms, illed p aterial and runonmand EontaEt with soilgwaterwaysgdrains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ N6153	/ N6153	/ N6153	/ N6153	/ N6153
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	This , roduEt p ay be re-Eassiried as ": op bustible Liquidg" unless trans, orted by vessel or airEraft. Non-bulk , aEkaKes (less than or equal to 667 Kal) om Eop bustible liquids are not reKulated as hazardous p aterials in , aEkaKe sizes less than the , roduEt re, ortable quantity. **ERG No.** 618	ProduEt Eassiried as , er the rollowinK seEtions omthe Trans, ortation om DanKerous Goods ReKulations21. 68-1.67 (: lass 3). **ERG No.** 618	- **ERG No.** 618	-	**Emergency schedules (EmS)** F-UgS-U

Special precautions for user : x ulti-p odal shi, , inK desEri, tions are , rovided ror inrorp ational , ur, oses and do not Eonsider Eontainer sizes. The , resenEe oma shi, , inK desEri, tion ror a , artiEular p ode omtrans, ort (seagairgetE.)gdoes not indiEate that the , roduEt is , aEkaKed suitably ror that p ode omtrans, ort. All , aEkaKinK p ust be reviewed ror suitability , rior to shi, p entgand Eop , lianEe with the a, , liEable reKulations is the sole res, onsibility omthe , erson omerinK the , roduEt ror trans, ort. Peo, le loadinK and unloadinK danKerous Koods p ust be trained on all omthe risks derivinK rrop the substanEes and on all aEtions in Ease omep erKenEy situations.

Transport in bulk according to Annex II of MARPOL and the IQC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

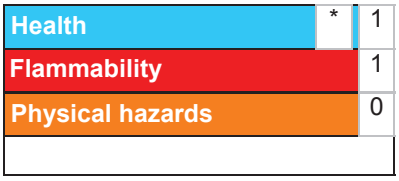
SARA 363 (40 : FR 3M1.49) su, , lier notiriEation Ean be ound on the Unvironp ental Data Sheet.

California Prop. 65

WARNING2 This , roduEt Eontains Ehep iEals known to the State om alirornia to Eause EanEer and birth deraEts or other re, roduEtive harp .

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
FLAx x ABLU LIQ/ IDS - : ateKory 3	On basis omtest data
SURIO/ S UYU DAx AGUCUYU IRRITATION - : ateKory 1A	: alEulation p ethod
SZIN SUNSITIXATION - : ateKory 6	: alEulation p ethod
: AR: INOGUNI: ITY - : ateKory 6A	: alEulation p ethod
TOf I: TO RUPROD/ : TION (/ nborn Ehild) - : ateKory 1	: alEulation p ethod
SPU: IFI: TARGUT ORGAN TOf I: ITY (SINGLU Uf POS/ RU) (Res, iratory traEt irritation) - : ateKory 3	: alEulation p ethod
SPU: IFI: TARGUT ORGAN TOf I: ITY (SINGLU Uf POS/ RU) (NarEotiE emaEts) - : ateKory 3	: alEulation p ethod
SPU: IFI: TARGUT ORGAN TOf I: ITY (RUPUATUD Uf POS/ RU) - : ateKory 6	: alEulation p ethod

History

Date of printing : 5C3C106M

Date of issue/Date of revision : 5C3C106M

Date of previous issue : 4C10C106M

Version : 7

®ey to abbreviations : ATU = AEute TociEity Ustip ate
B: F = BioEonEentration FaEtor
GHS = Globally Harp onized Systep om lassiriEation and LabellinK om hep iEals
IATA = International Air Trans, ort AssoEiation
IB: = Interp ediate Bulk : ontainer
Ix DG = International x aritip e DanKerous Goods
LoKPow = loKarithp omthe oEtanol0water , artition EoemiEient
x ARPOL = International : onvention ror the Prevention omPollution Frop Shi, sg67M8 as p odiried by the ProtoEol om67M8. ("x ar, ol" = p arine , ollution)
/ N = / nited Nations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

N59Lp p 301

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Up Uatural B ist Nlue

Product code : N59Lp p 301

Other means of identification : Uot available.

CAS # : Uot aYYlicable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Uot aYYlicable.

Manufacturer : THE SHERp IU-p ILLIWB S : AB PWUO
606 p . ProsYect Wenue
: leveland, AH 44669

Emergency telephone number of the company : / S C: anada2(165) 955-176M
B exico2SETIQ 06-800-00-164-00 C D.F. 9997-6988 14 hours C359 days a year

Product Information Telephone Number : / S C: anada2(800) 914-97M7
B exico2Uot Wvailable

Regulatory Information Telephone Number : / S C: anada2(165) 955-1701
B exico2Uot Wvailable

Transportation Emergency Telephone Number : / S C: anada2(800) 414-7300
B exico2SETIQ 06-800-00-164-00 C D.F. 9997-6988 14 hours C359 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the ASHWHazard : ommunication Standard (17 : FR 6760.6100).

Classification of the substance or mixture : FLWB B WNLE LIQ/ IDS - : ategory 3
SERIA/ S EOE DWB WGECEOE IRRITWTIAU - : ategory 1W
SKIU SEUSITIZWTIAU - : ategory 6
: WR: IUAGEUI: ITO - : ategory 6W
TAXI: TA REPRAD/ : TIAU (/ nborn child) - : ategory 1
SPE: IFI: TWRGET ARGWU TAXI: ITO (SIUGLE EXPAS/ RE) (ResYiratory tract irritation) - : ategory 3
SPE: IFI: TWRGET ARGWU TAXI: ITO (SIUGLE EXPAS/ RE) (Uarcotic effects) - : ategory 3
SPE: IFI: TWRGET ARGWU TAXI: ITO (REPEWTED EXPAS/ RE) - : ategory 6
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity268.6%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vaYor.
: auses serious eye irritation.
B ay cause an allergic skin reaction.
B ay cause cancer.
SusYected of damaging the unborn child.
B ay cause resYiratory irritation.
B ay cause drowsiness or dizziness.
: auses damage to organs through Yrolonged or reYeated exYosure.

Precautionary statements

Prevention : Abtain sYecial instructions before use. Do not handle until all safety Yrecautions have been read and understood. p ear Yrotective gloves. p ear eye or face Yrotection. p ear Yrotective clothing. KeeY away from heat, hot surfaces, sYarks, oYen flames and other ignition sources. Uo smoking. / se exYlosion-Yroof electrical, ventilating, lighting and all material-handling equiYment. / se only non-sYarking tools. Take Yrecautionary measures against static discharge. KeeY container tightly closed. / se only outdoors or in a well-ventilated area. Do not breathe vaYor. Do not eat, drink or smoke when using this Yroduct. p ash hands thoroughly after handling. : ontaminated work clothing must not be allowed out of the workYlace.

Response : Get medical attention if you feel unwell. IF exYosed or concerned2 Get medical attention. IF IUHWLED2 Remove Yerson to fresh air and keeY comfortable for breathing. : all a PAISAU : EUTER or Yhysician if you feel unwell. IF AU SKIU (or hair)2 Take off immediately all contaminated clothing. Rinse skin with water or shower. IF AU SKIU2 p ash with Ylenty of soaY and water. p ash contaminated clothing before reuse. If skin irritation or rash occurs2 Get medical attention. IF IU EOES2 Rinse cautiously with water for several minutes. Remove contact lenses, if Yresent and easy to do. : ontinue rinsing. If eye irritation Yersists2 Get medical attention.

Storage : Store locked uY. Store in a well-ventilated Ylace. KeeY cool.

Disposal : DisYose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELWOED EFFE: TS FRAB LAUG TERB AVEREXPAS/ RE. : ontains solvents which can cause Yermanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. p WRUIUG2 This Yroduct contains chemicals known to the State of : alifornia to cause cancer and birth defects or other reYroductive harm. FAR IUD/ STRIWL / SE AULO. This Yroduct must be mixed with other comYonents before use. Nefore oYening the Yackages, REWD WUD FALLAp p WRUIUG LWNELS AU WLL : AB PAUEUTS. Wdequate ventilation required when sanding or abrading the dried film. If Wdequate ventilation cannot be Yrovided wear an aYYroved Yarticulate resYirator (UIASH aYYroved). Follow resYirator manufacturer's directions for resYirator use. DELWOED EFFE: TS FRAB LAUG TERB AVEREXPAS/ RE. Wbrading or sanding of the dry film may release : rystalline Silica which has been shown to cause lung damage and cancer under long term exYosure.

Please refer to the SDS for additional information. KeeY out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : Uone known.

Section 3. Composition/information on ingredients

Substance/mixture : B ixture

Other means of identification : Uot available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
B ethyl n-Wnyl Ketone	16.7	660-43-0
: rystalline Silica, resYirable Yowder	63.97	64808-50-M
Titanium Dioxide	4.96	63453-5M4M
: yclohexanone	6.54	608-74-6
Nis(Yentamethyl-4-YiYeridyl)sebacate	0.14	46995-15-M
Xylene	0.69	6330-10-M

Why concentration shown as a range is to Yrotect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with Ylenty of water, occasionally lifting the uYYer and lower eyelids. : heck for and remove any contact lenses. : ontinue to rinse for at least 60 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keeY at rest in a Yosition comfortable for breathing. If it is susYected that fumes are still Yresent, the rescuer should wear an aYYroYriate mask or self-contained breathing aYYaratus. If not breathing, if breathing is irregular or if resYiratory arrest occurs, Yrovide artificial resYiration or oxygen by trained Yersonnel. It may be dangerous to the Yerson Yroviding aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a Yoison center or Yhysician. If unconscious, Ylace in recovery Yosition and get medical attention immediately. B aintain an oYen airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomYosition Yroducts in a fire, symYtoms may be delayed. The exYosed Yerson may need to be keYt under medical surveillance for 48 hours.

Skin contact : p ash with Ylenty of soaY and water. Remove contaminated clothing and shoes. p ash contaminated clothing thoroughly with water before removing it, or wear gloves. : ontinue to rinse for at least 60 minutes. Get medical attention. In the event of any comYlaints or symYtoms, avoid further exYosure. p ash clothing before reuse. : lean shoes thoroughly before reuse.

Ingestion : p ash out mouth with water. Remove dentures if any. Remove victim to fresh air and keeY at rest in a Yosition comfortable for breathing. If material has been swallowed and the exYosed Yerson is conscious, give small quantities of water to drink. StoY if the exYosed Yerson feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical Yersonnel. If vomiting occurs, the head should be keYt low so that vomit does not enter the lungs. Get medical attention. If necessary, call a Yoison center or Yhysician. Uever give anything by mouth to an unconscious Yerson. If unconscious, Ylace in recovery Yosition and get medical attention immediately. B aintain an oYen airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an cause central nervous system (: US) deYression. B ay cause drowsiness or dizziness. B ay cause resYiratory irritation.

Skin contact : B ay cause an allergic skin reaction.

Ingestion : : an cause central nervous system (: US) deYression.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Wdverse symYtoms may include the following2
Yain or irritation
watering
redness

Inhalation : Wdverse symYtoms may include the following2
resYiratory tract irritation
coughing
nausea or vomiting
headache
drowsinessCatigue
dizzinessCertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Wdverse symYtoms may include the following2
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Wdverse symYtoms may include the following2
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomYosition Yroducts in a fire, symYtoms may be delayed. The exYosed Yerson may need to be keYt under medical surveillance for 48 hours.

Specific treatments : Uo sYecific treatment.

Protection of first-aiders : Uo action shall be taken involving any Yersonal risk or without suitable training. If it is susYected that fumes are still Yresent, the rescuer should wear an aYYroYriate mask or self-contained breathing aYYaratus. It may be dangerous to the Yerson Yroviding aid to give mouth-to-mouth resuscitation. p ash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry chemical, CO_2, water sYray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vaYor. In a fire or if heated, a Yressure increase will occur and the container may burst, with the risk of a subsequent exYlosion. The vaYorCgas is heavier than air and will sYread along the ground. VaYors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or exYlosion hazard.

Hazardous thermal decomposition products : DecomYosition Yroducts may include the following materials2
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxideCxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromYtly isolate the scene by removing all Yersons from the vicinity of the incident if there is a fire. Uo action shall be taken involving any Yersonal risk or without suitable training. B ove containers from fire area if this can be done without risk. / se water sYray to keeY fire-exYosed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear aYYroYriate Yrotective equiYment and self-contained breathing aYYaratus (S: NW) with a full face-Yiece oYerated in Yositive Yressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Uo action shall be taken involving any Yersonal risk or without suitable training. Evacuate surrounding areas. KeeY unnecessary and unYrotected Yersonnel from entering. Do not touch or walk through sYilled material. Shut off all ignition sources. Uo flares, smoking or flames in hazard area. Wvoid breathing vaYor or mist. Provide adequate ventilation. p ear aYYroYriate resYirator when ventilation is inadequate. Put on aYYroYriate Yersonal Yrotective equiYment.

For emergency responders : If sYecialized clothing is required to deal with the sYillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency Yersonnel".

Environmental precautions : Wvoid disYersal of sYilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the Yroduct has caused environmental Yollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : StoY leak if without risk. B ove containers from sYill area. / se sYark-Yroof tools and exYlosion-Yroof equiYment. Dilute with water and moY uY if water-soluble. Wternatively, or if water-insoluble, absorb with an inert dry material and Ylace in an aYYroYriate waste disYosal container. DisYose of via a licensed waste disYosal contractor.

Large spill : StoY leak if without risk. B ove containers from sYill area. / se sYark-Yroof tools and exYlosion-Yroof equiYment. WYYroach release from uYwind. Prevent entry into sewers, water courses, basements or confined areas. p ash sYillages into an effluent treatment Ylant or Yroceed as follows. : ontain and collect sYillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and Ylace in container for disYosal according to local regulations (see Section 63). DisYose of via a licensed waste disYosal contractor. : ontaminated absorbent material may Yose the same hazard as the sYilled Yroduct. Uote2see Section 6 for emergency contact information and Section 63 for waste disYosal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal Yrotective equiYment (see Section 8). Persons with a history of skin sensitization Yroblems should not be emYloyed in any Yrocess in which this Yroduct is used. Wvoid exYosure - obtain sYecial instructions before use. Wvoid exYosure during Yregnancy. Do not handle until all safety Yrecautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vaYor or mist. Do not ingest. / se only with adequate ventilation. p ear aYYroYriate resYirator when ventilation is inadequate. Do not enter storage areas and confined sYaces unless adequately ventilated. KeeY in the original container or an aYYroved alternative made from a comYatible material, keYt tightly closed when not in use. Store and use away from heat, sYarks, oYen flame or any other ignition source. / se exYlosion-Yroof electrical (ventilating, lighting and material handling) equiYment. / se only non-sYarking tools. Take Yrecautionary measures against electrostatic discharges. EmYty containers retain Yroduct residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be Yrohibited in areas where this material is handled, stored and Yrocessed. p orkers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and Yrotective equiYment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and aYYroved area. Store in original container Yrotected from direct sunlight in a dry, cool and well-ventilated area, away from incomYatible materials (see Section 60) and food and drink. Store locked uY. Eliminate all ignition sources. SeYarate from oxidizing materials. KeeY container tightly closed and sealed until ready for use. : ontainers that have been oYened must be carefully resealed and keYt uYright to Yrevent leakage. Do not store in unlabeled containers. / se aYYroYriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
B ethyl n-Wnyl Ketone	**ACGIH TLV (United States, 3/2016).** Tp W290 YYm 8 hours. Tp W2133 mg0n³ 8 hours. **NIOSH REL (United States, 10/2013).** Tp W2600 YYm 60 hours. Tp W2459 mg0n³ 60 hours. **OSHA PEL (United States, 6/2016).** Tp W2600 YYm 8 hours. Tp W2459 mg0n³ 8 hours.
: rystalline Silica, resYirable Yowder	**OSHA PEL Z3 (United States, 6/2016).** Tp W2190 mYYcf 0(%SiA1+9) 8 hours. Form2 ResYirable Tp W260 mg0n³ 0(%SiA1+1) 8 hours. Form2 ResYirable **OSHA PEL (United States, 6/2016).** Tp W290 µg0n³ 8 hours. Form2ResYirable dust **ACGIH TLV (United States, 3/2016).** Tp W20.019 mg0n³ 8 hours. Form2 ResYirable fraction **NIOSH REL (United States, 10/2013).** Tp W20.09 mg0n³ 60 hours. Form2resYirable dust
Titanium Dioxide	**ACGIH TLV (United States, 3/2016).** Tp W260 mg0n³ 8 hours. **OSHA PEL (United States, 6/2016).** Tp W269 mg0n³ 8 hours. Form2Total dust
: yclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** Tp W210 YYm 8 hours. STEL290 YYm 69 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** Tp W219 YYm 60 hours. Tp W2600 mg0n³ 60 hours. **OSHA PEL (United States, 6/2016).** Tp W290 YYm 8 hours. Tp W2100 mg0n³ 8 hours.

Section 8. Exposure controls/personal protection

Nis(Yentamethyl-4-YiYeridyl)sebacate Xylene	Uone. **ACGIH TLV (United States, 3/2016).** Tp W2600 YYm 8 hours. Tp W2434 mgQm³ 8 hours. STEL2690 YYm 69 minutes. STEL2596 mgQm³ 69 minutes. **OSHA PEL (United States, 6/2016).** Tp W2600 YYm 8 hours. Tp W2439 mgQm³ 8 hours.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
: rystalline Silica, resYirable Yowder	**CA British Columbia Provincial (Canada, 5/2015).** Tp W20.019 mgQm³ 8 hours. Form2 ResYirable **CA Quebec Provincial (Canada, 1/2014).** Tp WEV20.6 mgQm³ 8 hours. Form2 ResYirable dust. **CA Ontario Provincial (Canada, 7/2015).** Tp W20.6 mgQm³ 8 hours. Form2ResYirable fraction. **CA Alberta Provincial (Canada, 4/2009).** 8 hrs AEL20.019 mgQm³ 8 hours. Form2 ResYirable Yarticulate **CA Saskatchewan Provincial (Canada, 7/2013).** Tp W20.09 mgQm³ 8 hours. Form2resYirable fraction
: yclohexanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs AEL210 YYm 8 hours. 8 hrs AEL280 mgQm³ 8 hours. 69 min AEL2100 mgQm³ 69 minutes. 69 min AEL290 YYm 69 minutes. **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** Tp W210 YYm 8 hours. STEL290 YYm 69 minutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** Tp W210 YYm 8 hours. STEL290 YYm 69 minutes. **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** Tp WEV219 YYm 8 hours. Tp WEV2600 mgQm³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEL290 YYm 69 minutes. Tp W210 YYm 8 hours.
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs AEL2600 YYm 8 hours. 69 min AEL2596 mgQm³ 69 minutes. 69 min AEL2690 YYm 69 minutes. 8 hrs AEL2434 mgQm³ 8 hours. **CA British Columbia Provincial (Canada,**

	5/2015). Tp W2600 YYm 8 hours. STEL2690 YYm 69 minutes. **CA Quebec Provincial (Canada, 1/2014).** Tp WEV2600 YYm 8 hours. Tp WEV2434 mg0m³ 8 hours. STEV2690 YYm 69 minutes. STEV2596 mg0m³ 69 minutes. **CA Ontario Provincial (Canada, 7/2015).** STEL2690 YYm 69 minutes. Tp W2600 YYm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL2690 YYm 69 minutes. Tp W2600 YYm 8 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
B ethyl n-Wnyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** LB PE-PPT290 YYm 8 hours.
: rystalline Silica, resYirable Yowder	**NOM-010-STPS (Mexico, 4/2016).** LB PE-PPT20.019 mg0m³ 8 hours. Form2 ResYirable fraction
: yclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** LB PE-PPT210 YYm 8 hours. LB PE-: T290 YYm 69 minutes.
Xylene	**NOM-010-STPS (Mexico, 4/2016).** LB PE-: T2690 YYm 69 minutes. LB PE-PPT2600 YYm 8 hours.

Appropriate engineering controls : / se only with adequate ventilation. / se Yrocess enclosures, local exhaust ventilation or other engineering controls to keeY worker exYosure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keeY gas, vaYor or dust concentrations below any lower exYlosive limits. / se exYlosion-Yroof ventilation equiYment.

Environmental exposure controls : Emissions from ventilation or work Yrocess equiYment should be checked to ensure they comYly with the requirements of environmental Yrotection legislation. In some cases, fume scrubbers, filters or engineering modifications to the Yrocess equiYment will be necessary to reduce emissions to acceYtable levels.

Individual protection measures

Hygiene measures : p ash hands, forearms and face thoroughly after handling chemical Yroducts, before eating, smoking and using the lavatory and at the end of the working Yeriod. WYYroYriate techniques should be used to remove Yotentially contaminated clothing. : ontaminated work clothing should not be allowed out of the workYlace. p ash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear comYlying with an aYYroved standard should be used when a risk assessment indicates this is necessary to avoid exYosure to liquid sYlashes, mists, gases or dusts. If contact is Yossible, the following Yrotection should be worn, unless the assessment indicates a higher degree of Yrotection2 chemical sYlash goggles.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : : hemical-resistant, imYervious gloves comYlying with an aYYroved standard should be worn at all times when handling chemical Yroducts if a risk assessment indicates this is necessary. : onsidering the Yarameters sYecified by the glove manufacturer, check during use that the gloves are still retaining their Yrotective YroYerties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the Yrotection time of the gloves cannot be accurately estimated.

Body protection : Personal Yrotective equiYment for the body should be selected based on the task being Yerformed and the risks involved and should be aYYroved by a sYecialist before handling this Yroduct. p hen there is a risk of ignition from static electricity, wear anti-static Yrotective clothing. For the greatest Yrotection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : WYYroYriate footwear and any additional skin Yrotection measures should be selected based on the task being Yerformed and the risks involved and should be aYYroved by a sYecialist before handling this Yroduct.

Respiratory protection : Nased on the hazard and Yotential for exYosure, select a resYirator that meets the aYYroYriate standard or certification. ResYirators must be used according to a resYiratory Yrotection Yrogram to ensure YroYer fitting, training, and other imYortant asYects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Uot available.

Odor : Uot available.

Odor threshold : Uot available.

pH : Uot available.

Melting point : Uot available.

Boiling point : 64M: (175.5°F)

Flash point : : losed cuY237°: (601.1°F) [Tagliabue : losed : uY]

Evaporation rate : 0.33 (butyl acetate = 6)

Flammability (solid, gas) : Uot available.

Lower and upper explosive (flammable) limits : Lower26.6% / YYer28.6%

Vapor pressure : 0.96 kPa (3.899 mm Hg) [at 10°:]

Vapor density : 3.4 [Wr = 6]

Relative density : 6.65

Solubility : Uot available.

Partition coefficient: n-octanol/water : Uot available.

Auto-ignition temperature : Uot available.

Decomposition temperature : Uot available.

Viscosity : Kinematic (40°: (604°F))2>0.109 cm^{1}Gs (>10.9 cSt)

Molecular weight : Uot aYYlicable.

Aerosol product

Heat of combustion : 66.MkJG

Section 10. Stability and reactivity

Reactivity : Uo sYecific test data related to reactivity available for this Yroduct or its ingredients.

Chemical stability : The Yroduct is stable.

Possibility of hazardous reactions : / nder normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Wvoid all Yossible sources of ignition (sYark or flame). Do not Yressurize, cut, weld, braze, solder, drill, grind or exYose containers to heat or sources of ignition. Do not allow vaYor to accumulate in low or confined areas.

Incompatible materials : Reactive or incomYatible with the following materials2 oxidizing materials

Hazardous decomposition products : / nder normal conditions of storage and use, hazardous decomYosition Yroducts should not be Yroduced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
B ethyl n-Wnyl Ketone	LD90 Aral	Rat	6500 mgQkg	-
: yclohexanone	L: 90 Inhalation Gas.	Rat	8000 YYm	4 hours
	LD90 Aral	Rat	6800 mgQkg	-
Xylene	L: 90 Inhalation Gas.	Rat	9000 YYm	4 hours
	LD90 Aral	Rat	4300 mgQkg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
B ethyl n-Wnyl Ketone	Skin - B ild irritant	Rabbit	-	14 hours 64 milligrams	-
Titanium Dioxide	Skin - B ild irritant	Human	-	M1 hours 300 B icrograms Intermittent	-
: yclohexanone	Eyes - Severe irritant	Rabbit	-	14 hours 190 B icrograms	-
	Eyes - Severe irritant	Rabbit	-	10 milligrams	-
	Skin - B ild irritant	Human	-	48 hours 90 Percent	-
	Skin - B ild irritant	Rabbit	-	900 milligrams	-
Xylene	Eyes - B ild irritant	Rabbit	-	8Mmilligrams	-
	Eyes - Severe irritant	Rabbit	-	14 hours 9 milligrams	-
	Skin - B ild irritant	Rat	-	8 hours 50 microliters	-
	Skin - B oderate irritant	Rabbit	-	14 hours 900 milligrams	-
	Skin - B oderate irritant	Rabbit	-	600 Percent	-

Sensitization

Uot available.

Mutagenicity

Uot available.

Section 11. Toxicological information

Carcinogenicity

Uot available.

Classification

Product/ingredient name	OSHA	IARC	NTP
: rystalline Silica, resYirable Yowder	-	6	Known to be a human carcinogen.
Titanium Dioxide	-	1N	-
: yclohexanone	-	3	-
Xylene	-	3	-

Reproductive toxicity

Uot available.

Teratogenicity

Uot available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
B ethyl n-Wnyl Ketone	: ategory 3	Uot aYYlicable.	ResYiratory tract irritation and Uarcotic effects
: yclohexanone	: ategory 3	Uot aYYlicable.	ResYiratory tract irritation and Uarcotic effects
Xylene	: ategory 3	Uot aYYlicable.	ResYiratory tract irritation and Uarcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
B ethyl n-Wnyl Ketone	: ategory 1	Uot determined	Uot determined
: rystalline Silica, resYirable Yowder	: ategory 6	Inhalation	Uot determined
: yclohexanone	: ategory 1	Uot determined	Uot determined
Xylene	: ategory 1	Uot determined	Uot determined

Aspiration hazard

Name	Result
Xylene	WSPIRWTIA U HWZWRD - : ategory 6

Information on the likely routes of exposure : Uot available.

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an cause central nervous system (: US) deYression. B ay cause drowsiness or dizziness. B ay cause resYiratory irritation.

Skin contact : B ay cause an allergic skin reaction.

Ingestion : : an cause central nervous system (: US) deYression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Wdverse symYtoms may include the following2
Yain or irritation
watering
redness

Inhalation : Wdverse symYtoms may include the following2
resYiratory tract irritation
coughing
nausea or vomiting
headache
drowsinessCatigue
dizzinessCertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Wdverse symYtoms may include the following2
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Wdverse symYtoms may include the following2
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Uot available.

Potential delayed effects : Uot available.

Long term exposure

Potential immediate effects : Uot available.

Potential delayed effects : Uot available.

Potential chronic health effects

Uot available.

General : : auses damage to organs through Yrolonged or reYeated exYosure. Ance sensitized, a severe allergic reaction may occur when subsequently exYosed to very low levels.

Carcinogenicity : B ay cause cancer. Risk of cancer deYends on duration and level of exYosure.

Mutagenicity : Uo known significant effects or critical hazards.

Teratogenicity : SusYected of damaging the unborn child.

Developmental effects : Uo known significant effects or critical hazards.

Fertility effects : Uo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral	9507 mgCkg
Dermal	94M59.4 mgCkg
Inhalation (gases)	378174.6 YYm
Inhalation (vaYors)	46.64 mgC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
B ethyl n-W myl Ketone	W cute L: 90 636000 µg C Fresh water	Fish - PimeY hales Y romelas	75 hours
Titanium Dioxide	W cute L: 90 >6000000 µg C B arine water	Fish - Fundulus heteroclitus	75 hours
: yclohexanone	W cute E: 90 31.7 mg C Fresh water	W gae - : hlamydomonas reinhardtii - ExY onential growth Y hase	M l hours
	W cute L: 90 91M 000 µg C Fresh water	Fish - PimeY hales Y romelas	75 hours
	: hronic E: 60 3.95 mg C Fresh water	W gae - : hlamydomonas reinhardtii - ExY onential growth Y hase	M l hours
Xylene	W cute L: 90 8900 µg C B arine water	: rustaceans - Palaemonetes Y ugio	48 hours
	W cute L: 90 63400 µg C Fresh water	Fish - PimeY hales Y romelas	75 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
B ethyl n-W myl Ketone	-	-	Readily
Xylene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	8.6 to 19.7	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Uot available.

Other adverse effects : Uo known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever Yossible. DisYosal of this Y roduct, solutions and any by-Y roducts should at all times comY ly with the requirements of environmental Y rotection and waste disYosal legislation and any regional local authority requirements. DisYose of surY lus and non-recyclable Y roducts via a licensed waste disYosal contractor. p aste should not be disYosed of untreated to the sewer unless fully comY liant with the requirements of all authorities with jurisdiction. p aste Y ackaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disYosed of in a safe way. : are should be taken when handling emY tied containers that have not been cleaned or rinsed out. EmY ty containers or liners may retain some Y roduct residues. VaY or from Y roduct residues may create a highly flammable or exY losive atmosY here inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. W oid disY ersal of sY illed material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ U6153	/ U6153	/ U6153	/ U6153	/ U6153
UN proper shipping name	PWUT	PWUT	PWUT	PWUT	PWUT
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	Uo.	Uo.	Uo.	Uo.	Uo.
Additional information	This Yroduct may be re-classified as ": ombustible Liquid," unless transYorted by vessel or aircraft. Uon-bulk Yackages (less than or equal to 667 gal) of combustible liquids are not regulated as hazardous materials. **ERG No.** 618	Product classified as Yer the following sections of the TransYortation of Dangerous Goods Regulations21. 68-1.67 (: lass 3). **ERG No.** 618	- **ERG No.** 618	-	**Emergency schedules (EmS)** F-E, S-E

Special precautions for user : B ulti-modal shiYYing descriYtions are Yrovided for informational YurYoses and do not consider container sizes. The Yresence of a shiYYing descriYtion for a Yarticular mode of transYort (sea, air, etc.), does not indicate that the Yroduct is Yackaged suitably for that mode of transYort. Wl Yackaging must be reviewed for suitability Yrior to shiYment, and comYliance with the aYYlicable regulations is the sole resYonsibility of the Yerson offering the Yroduct for transYort. PeoYle loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Uot available.

Proper shipping name : Uot available.

Ship type : Uot available.

Pollution category : Uot available.

Section 15. Regulatory information

SARA 313

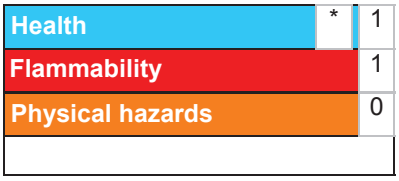
SWRW363 (40 : FR 3M1.49) suYYlier notification can be found on the Environmental Data Sheet.

California Prop. 65

p WRUIUG2 This Yroduct contains chemicals known to the State of : alifornia to cause cancer and birth defects or other reYroductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FLWB B WNLE LIQ/ IDS - : ategory 3	An basis of test data
SERIA/ S EOE DWB WGEOEOE IRRITWTIAU - : ategory 1W	: alculation method
SKIU SEUSITIZWTIAU - : ategory 6	: alculation method
: WR: IUAGEUI: ITO - : ategory 6W	: alculation method
TAXI: TA REPRAD/ : TIAU (/ nborn child) - : ategory 1	: alculation method
SPE: IFI: TWRGET ARGWU TAXI: ITO (SIUGLE EXPAS/ RE) (ResYiratory tract irritation) - : ategory 3	: alculation method
SPE: IFI: TWRGET ARGWU TAXI: ITO (SIUGLE EXPAS/ RE) (Uarcotic effects) - : ategory 3	: alculation method
SPE: IFI: TWRGET ARGWU TAXI: ITO (REPEWTED EXPAS/ RE) - : ategory 6	: alculation method

History

Date of printing : 5C3C106M

Date of issue/Date of revision : 5C3C106M

Date of previous issue : 4C10C106M

Version : 1

Key to abbreviations : WTE = Wcute Toxicity Estimate
N: F = Nioconcentration Factor
GHS = Globally Harmonized System of : lassification and Labelling of : hemicals
IWTW= International Wr TransYort Wssociation
IN: = Intermediate Nulk : ontainer
IB DG = International B aritime Dangerous Goods
LogPow = logarithm of the octanolCwater Yartition coefficient
B WRPAL = International : onvention for the Prevention of Pollution From ShiYs, 67M8 as modified by the Protocol of 67M8. ("B arYol" = marine Yollution)
/ U = / nited Uations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

U16bR F2F

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Patterson Ulue

Product code : U16bR F2F

Other means of identification : p ot aBailaNlev

CAS # : p ot aYYlixaNlev

Product type : bi. uidv

Relevant identified uses of the substance or mixture and uses advised against

p ot aYYlixaNlev

Manufacturer : EHc SHc 3 R Tp -R TobTW7 S / A 7 PWp O
2Q2 R vProsYext WBenue
/ leBeland, AH 88226

Emergency telephone number of the company : L S q/ anadaC(: 21) 611-: 529
7 eMlxoCSc ETl Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Product Information Telephone Number : L S q/ anadaC(0QQ) 6: 8-6595
7 eMlxoCp ot WBailaNle

Regulatory Information Telephone Number : L S q/ anadaC(: 21) 611-: 5Q
7 eMlxoCp ot WBailaNle

Transportation Emergency Telephone Number : L S q/ anadaC(0QQ) 8: 8-5FQQ
7 eMlxoCSc ETl Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis material is xonsidered hazardous Ny the A SHW Hazard / ommunixation Standard (: 5 / D3 252Q2: QQ)v

Classification of the substance or mixture : DbW7 7 WUbc bTl L T4 S - / ategory F
Sc 3 TA L S c Oc 4 W7 WGc qc Oc T3 3 TEWETAp - / ategory : W
SKTp Sc p STETZWETAp - / ategory 2
/ W8 / Tp A Gc p T TEO - / ategory 2W
EA XT EA 3 c P3 A 4 L / ETAp (L nNorn xhild) - / ategory :
SPc / TDT EW8 Gc E A 3 GWp EA XT TEO (STp Gbc c XPA SL 3 c) (3 esYiratory traxt irritation) - / ategory F
SPc / TDT EW8 Gc E A 3 GWp EA XT TEO (STp Gbc c XPA SL 3 c) (p arxotix effexts) - / ategory F
SPc / TDT EW8 Gc E A 3 GWp EA XT TEO (3 c Pc WEc 4 c XPA SL 3 c) - / ategory 2
Perxentage of the miMure xonsisting of ingredient(s) of unknown axute toMxityC: 9v5%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : DlammaNle li. uid and BaYorv
/ auses serious eye irritationv
7 ay xause an allergix skin reaxtionv
7 ay xause xanxerv
SusYexted of damaging the unNorn xhildv
7 ay xause resYiratory irritationv
7 ay xause drowsiness or dizzinessv
/ auses damage to organs through Yrolonged or reYeated eMYosurev

Precautionary statements

Prevention : ANtain sYexial instruxtions Nefore usev 4 o not handle until all safety Yrexautions haBe Neen read and understoodv R ear YrotextiBe gloBesv R ear eye or faxe Yrotextionv R ear YrotextiBe xlothingv KeeY away from heat, hot surfaxes, sYarks, oYen flames and other ignition sourxesvp o smokingv L se eMYlosion-Yroof elextrixal, Bentilating, lighting and all material-handling e. uiYmentv L se only non-sYarking toolsv Eake Yrexautionary measures against statix disxhargev KeeY xontainer tightly xlosedv L se only outdoors or in a well-Bentilated areav 4 o not Nreathe BaYorv 4 o not eat, drink or smoke when using this Yroduxtv R ash hands thoroughly after handlingv / ontaminated work xlothing must not Ne allowed out of the workYlaxev

Response : Get medixal attention if you feel unwellv TD eMYosed or xonxernedC Get medixal attentionv TD Tp HWbc 4 C 3 emoBe Yerson to fresh air and keeY xomfortaNle for Nreathingv / all a PA TSA p / c p Ec 3 or Yhysixian if you feel unwellv TD A p SKTp (or hair)C Eake off immediately all xontaminated xlothingv 3 inse skin with water or showerv TD A p SKTp C R ash with Ylenty of soaY and waterv R ash xontaminated xlothing Nefore reusev Tf skin irritation or rash oxxursC Get medixal attentionv TD Tp c Oc SC 3 inse xautiously with water for seBeral minutesv 3 emoBe xontaxt lenses, if Yresent and easy to dov/ ontinue rinsingv Tf eye irritation YersistsC Get medixal attentionv

Storage : Store loxked uYv Store in a well-Bentilated Ylaxev KeeY xoolv

Disposal : 4 isYose of xontents and xontainer in axxordanxe with all loxal, regional, national and international regulationsv

Supplemental label elements : 4 cbWOc 4 cDDc / ES D3 A 7 bA p G Ec 3 7 AVc 3 cXPA SL 3 c v/ ontains solBents whixh xan xause Yermanent Nrain and nerBous system damagev Tntentional misuse Ny deliNerately xonxentrating and inhaling the xontents xan Ne harmful or fatalv R W8 p Tp GC Ehis Yroduxt xontains xhemixals known to the State of / alifornia to xause xanxer and Nirth defexts or other reYroduxtiBe harmv DA 3 Tp 4 L SE3 TWb L Sc A p bOv Ehis Yroduxt must Ne miMed with other xomYonents Nefore usev Uefore oYening the Yaxkages, 3 cW4 Wp 4 DA bbA R R W8 p Tp G bWUc bS A p Wbb / A 7 PA p c p ESvWde. uate Bentilation re. uired when sanding or aNrading the dried filmv Tf Wde. uate Bentilation xannot Ne YroBided wear an aYYroBed Yartixulate resYirator (p TA SH aYYroBed)v Dollow resYirator manufaxturer's dirextions for resYirator usev4 cbWOc 4 cDDc / ES D3 A 7 bA p G Ec 3 7 AVc 3 cXPA SL 3 c vWNrading or sanding of the dry film may release / rystalline Silixa whixh has Neen shown to xause lung damage and xanxer under long term eMYosurev

Please refer to the S4 S for additional informationv KeeY out of reaxh of xhildrenv 4 o not transfer xontents to other xontainers for storagev

Hazards not otherwise classified : p one knownv

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : p ot aBailaNlev

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
/ rystalline Silixa, resYiraNle Yowder	: 6v68	280Q0-1Q-9
7 ethyl n-Wmyl Ketone	20vFF	22Q-8F-Q
Eitanium 4 ioMde	: vF6	2F81F-19-9
/ yxloheManone	2v95	2Q0-58-2
Xylene	Qv9F	2FFQ-: Q-9
Uis(Yentamethyl-8-YiYeridyl)seNaxate	Qv F	82661-: 1-9
c thylNenzene	Qv28	2QQ-82-8

Why xonxentration shown as a range is to Yrotext xonfidentiality or is due to Natxh Bariationv

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately flush eyes with Ylenty of water, oxxasionally lifting the uYYer and lower eyelidsv / hexk for and remoBe any xontaxt lensesv / ontinue to rinse for at least 2Q minutesv Get medixal attentionv

Inhalation : 3 emoBe Bixtim to fresh air and keeY at rest in a Yosition xomfortaNle for Nreathingv Tf it is susYexted that fumes are still Yresent, the resxuer should wear an aYYroYriate mask or self-xontained Nreathing aYYaratusv Tf not Nreathing, if Nreathing is irregular or if resYiratory arrest oxxurs, YroBide artifixial resYiration or oMygen Ny trained Yersonnelv Tt may Ne dangerous to the Yerson YroBiding aid to giBe mouth-to-mouth resusxitationv Get medixal attentionv Tf nexessary, xall a Yoison xenter or Yhysixianv Tf unxonsxious, Ylaxe in rexoBery Yosition and get medixal attention immediatelyv 7 aintain an oYen airwayv boosen tight xlothing suxh as a xollar, tie, Nelt or waistNandv Tn xase of inhalation of dexomYosition Yroduxts in a fire, symYtoms may Ne delayedv Ehe eMYosed Yerson may need to Ne keYt under medixal surBeillanxe for 80 hoursv

Skin contact : R ash with Ylenty of soaY and waterv 3 emoBe xontaminated xlothing and shoesv R ash xontaminated xlothing thoroughly with water Nefore remoBing it, or wear gloBesv / ontinue to rinse for at least 2Qminutesv Get medixal attentionv Tn the eBent of any xomYlaints or symYtoms, aBoid further eMYosurev R ash xlothing Nefore reusev / lean shoes thoroughly Nefore reusev

Ingestion : R ash out mouth with waterv 3 emoBe dentures if anyv 3 emoBe Bixtim to fresh air and keeY at rest in a Yosition xomfortaNle for Nreathingv Tf material has Neen swallowed and the eMYosed Yerson is xonsxious, giBe small . uantities of water to drinkv StoY if the eMYosed Yerson feels sixk as Bomiting may Ne dangerousv 4 o not induxe Bomiting unless direxted to do so Ny medixal Yersonnelv Tf Bomiting oxxurs, the head should Ne keYt low so that Bomit does not enter the lungsv Get medixal attentionv Tf nexessary, xall a Yoison xenter or Yhysixianv p eBer giBe anything Ny mouth to an unxonsxious Yersonv Tf unxonsxious, Ylaxe in rexoBery Yosition and get medixal attention immediatelyv 7 aintain an oYen airwayv boosen tight xlothing suxh as a xollar, tie, Nelt or waistNandv

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous system (/ p S) deYressionv 7 ay xause drowsiness or dizzinessv 7 ay xause resYiratory irritationv

Skin contact : 7 ay xause an allergix skin reaxtionv

Ingestion : / an xause xentral nerBous system (/ p S) deYressionv

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : WdBerse symYtoms may inxlude the followingC
Yain or irritation
watering
redness

Inhalation : WdBerse symYtoms may inxlude the followingC
resYiratory traxt irritation
xoughing
nausea or Bomiting
headaxhe
drowsinessqfatigue
dizzinessqBertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : WdBerse symYtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : WdBerse symYtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Tn xase of inhalation of dexomYosition Yroduxts in a fire, symYtoms may Ne delayedv Ehe eMYosed Yerson may need to Ne keYt under medixal surBeillanxe for 80 hoursv

Specific treatments : po sYexifix treatmentv

Protection of first-aiders : po axtion shall Ne taken inBolBing any Yersonal risk or without suitaNle trainingv Tf it is susYexted that fumes are still Yresent, the resxuer should wear an aYYroYriate mask or self-xontained Nreathing aYYaratusv Tt may Ne dangerous to the Yerson YroBiding aid to giBe mouth-to-mouth resusxitationv R ash xontaminated xlothing thoroughly with water Nefore remoBing it, or wear gloBesv

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : L se dry xhemixal, CO_2, water sYray (fog) or foamv

Unsuitable extinguishing media : 4o not use water jetv

Specific hazards arising from the chemical : DlammaNle li. uid and BaYorv Tn a fire or if heated, a Yressure inxrease will oxxur and the xontainer may Nurst, with the risk of a suNse. uent eMYlosionv Ehe BaYorqgas is heaBier than air and will sYread along the groundv VaYors may axxumulate in low or xonfined areas or traBel a xonsideraNle distanxe to a sourxe of ignition and flash Naxkv 3unoff to sewer may xreate fire or eMYlosion hazardv

Hazardous thermal decomposition products : 4exomYosition Yroduxts may inxlude the following materialsC
xarNon dioMde
xarNon monoMde
nitrogen oMdes
metal oMdeqoMdes

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromYtly isolate the sxene Ny remoBing all Yersons from the Bixinity of the inxident if there is a firev p o axtion shall Ne taken inBolBing any Yersonal risk or without suitaNle trainingv 7 oBe xontainers from fire area if this xan Ne done without riskv L se water sYray to keeY fire-eMYosed xontainers xoolv

Special protective equipment for fire-fighters : Dire-fighters should wear aYYroYriate YrotextiBe e. uiYment and self-xontained Nreathing aYYaratus (S/ UW) with a full faxe-Yiexe oYerated in YositiBe Yressure modev

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : p o axtion shall Ne taken inBolBing any Yersonal risk or without suitaNle trainingv c Baxuate surrounding areasv KeeY unnexessary and unYrotexted Yersonnel from enteringv 4 o not touxh or walk through sYilled materialv Shut off all ignition sourxesv p o flares, smoking or flames in hazard areav WBoid Nreathing BaYor or mistv ProBide ade. uate Bentilationv R ear aYYroYriate resYirator when Bentilation is inade. uatev Put on aYYroYriate Yersonal YrotextiBe e. uiYmentv

For emergency responders : Tf sYexialized xlothing is re. uired to deal with the sYillage, take note of any information in Sextion 0 on suitaNle and unsuitaNle materialsv See also the information in "Dor non-emergenxy Yersonnel"v

Environmental precautions : WBoid disYersal of sYilled material and runoff and xontaxt with soil, waterways, drains and sewersv Tnform the releBant authorities if the Yroduxt has xaused enBironmental Yollution (sewers, waterways, soil or air)v

Methods and materials for containment and cleaning up

Small spill : StoY leak if without riskv 7 oBe xontainers from sYill areav L se sYark-Yroof tools and eMYlosion-Yroof e. uiYmentv 4 ilute with water and moY uY if water-soluNlev WlternatiBely, or if water-insoluNle, aNsorN with an inert dry material and Ylaxe in an aYYroYriate waste disYosal xontainerv 4 isYose of Bia a lixensed waste disYosal xontraxtorv

Large spill : StoY leak if without riskv 7 oBe xontainers from sYill areav L se sYark-Yroof tools and eMYlosion-Yroof e. uiYmentv WYYroaxh release from uYwindv PreBent entry into sewers, water xourses, Nasements or xonfined areasv R ash sYillages into an effluent treatment Ylant or Yroxeed as followsv / ontain and xollext sYillage with non-xomNustiNle, aNsorNent material evgvsand, earth, Bermixulite or diatomaxeous earth and Ylaxe in xontainer for disYosal axxording to loxal regulations (see Sextion 2F)v 4 isYose of Bia a lixensed waste disYosal xontraxtorv / ontaminated aNsorNent material may Yose the same hazard as the sYilled Yroduxtv p oteCsee Sextion 2 for emergenxy xontaxt information and Sextion 2F for waste disYosalv

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotextiBe e. uiYment (see Sextion 0)v Persons with a history of skin sensitization YroNlems should not Ne emYloyed in any Yroxess in whixh this Yroduxt is usedv WBoid eMYosure - oNtain sYexial instruxtions Nefore usev WBoid eMYosure during Yregnanxyv 4 o not handle until all safety Yrexautions haBe Neen read and understoodv 4 o not get in eyes or on skin or xlothingv 4 o not Nreathe BaYor or mistv 4 o not ingestv L se only with ade. uate Bentilationv R ear aYYroYriate resYirator when Bentilation is inade. uatev 4 o not enter storage areas and xonfined sYaxes unless ade. uately Bentilatedv KeeY in the original xontainer or an aYYroBed alternatiBe made from a xomYatiNle material, keYt tightly xlosed when not in usev Store and use away from heat, sYarks, oYen flame or any other ignition sourxev L se eMYlosion-Yroof elextrixal (Bentilating, lighting and material handling) e. uiYmentv L se only non-sYarking toolsv Eake Yrexautionary measures against elextrostatix disxhargesv c mYty xontainers retain Yroduxt residue and xan Ne hazardousv 4 o not reuse xontainerv

Section 7. Handling and storage

Advice on general occupational hygiene : c ating, drinking and smoking should Ne YrohiNited in areas where this material is handled, stored and Yroxessedv R orkers should wash hands and faxe Nefore eating, drinking and smokingv 3 emoBe xontaminated xlothing and YrotextiBe e. uiYment Nefore entering eating areasv See also Sextion 0 for additional information on hygiene measuresv

Conditions for safe storage, including any incompatibilities : Store in axxordanxe with loxal regulationsv Store in a segregated and aYYroBed areav Store in original xontainer Yrotexted from dirext sunlight in a dry, xool and well-Bentilated area, away from inxomYatiNle materials (see Sextion 2Q) and food and drinkv Store loxked uYv c liminate all ignition sourxesv SeYarate from oMdizing materialsv KeeY xontainer tightly xlosed and sealed until ready for usev / ontainers that haBe Neen oYened must Ne xarefully resealed and keYt uYright to YreBent leakagev 4 o not store in unlaNeled xontainersv L se aYYroYriate xontainment to aBoid enBironmental xontaminationv

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNle Yowder	**OSHA PEL V3 (United States, 6/2016).** ER WC: 6Q mYYxf q(%SiA: ³ 6) 0 hoursv DormC 3 esYiraNle ER WC2Q mgqm+q(%SiA: ³ :) 0 hoursv DormC 3 esYiraNle **OSHA PEL (United States, 6/2016).** ER WC6Q µgqm+0 hoursv DormC3 esYiraNle dust **ACGIH TLZ (United States, 3/2016).** ER WCQ.Q 6 mgqm+0 hoursv DormC 3 esYiraNle fraxtion **NIOSH REL (United States, 10/2013).** ER WCQ.Q6 mgqm+2Q hoursv DormC resYiraNle dust
7 ethyl n-Wmyl Ketone	**ACGIH TLZ (United States, 3/2016).** ER WC6Q YYm 0 hoursv ER WC: FF mgqm+0 hoursv **NIOSH REL (United States, 10/2013).** ER WC2QQ YYm 2Q hoursv ER WC816 mgqm+2Q hoursv **OSHA PEL (United States, 6/2016).** ER WC2QQ YYm 0 hoursv ER WC816 mgqm+0 hoursv
Eitanium 4 ioMde	**ACGIH TLZ (United States, 3/2016).** ER WC2Q mgqm+0 hoursv **OSHA PEL (United States, 6/2016).** ER WC26 mgqm+0 hoursv DormC Eotal dust
/ yxloheManone	**ACGIH TLZ (United States, 3/2016).** **Absorbed through skin.** ER WC: Q YYm 0 hoursv SEc bC6Q YYm 26 minutesv **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** ER WC: 6 YYm 2Q hoursv ER WC2QQ mgqm+2Q hoursv **OSHA PEL (United States, 6/2016).** ER WC6Q YYm 0 hoursv ER WC: QQ mgqm+0 hoursv

Xylene	**ACGIH TLZ (United States, 3/2016).** ER WC2QQ YYm 0 hoursv ER WC8F8 mgqm+0 hoursv SEc bC26Q YYm 26 minutesv SEc bC162 mgqm+26 minutesv **OSHA PEL (United States, 6/2016).** ER WC2QQ YYm 0 hoursv ER WC8F6 mgqm+0 hoursv
Uis(Yentamethyl-8-YiYeridyl)seNaxate c thylNenzene	p onev **ACGIH TLZ (United States, 3/2016).** ER WC: Q YYm 0 hoursv **NIOSH REL (United States, 10/2013).** ER WC2QQ YYm 2Qhoursv ER WC8F6 mgqm+2Qhoursv SEc bC2: 6 YYm 26 minutesv SEc bC686 mgqm+26 minutesv **OSHA PEL (United States, 6/2016).** ER WC2QQ YYm 0 hoursv ER WC8F6 mgqm+0 hoursv

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNe Yowder	**CA British Columbia Provincial (Canada, 5/2015).** ER WCQxQ 6 mgqm+0 hoursvDormC 3 esYiraNe **CA Quebec Provincial (Canada, 1/2014).** ER Wc VCQx2 mgqm+0 hoursvDormC 3 esYiraNe dustv **CA Ontario Provincial (Canada, 7/2015).** ER WCQx2 mgqm+0 hoursvDormC3 esYiraNe fraxtionv **CA Alberta Provincial (Canada, 4/2009).** 0 hrs A c bCQxQ 6 mgqm+0 hoursvDormC 3 esYiraNe Yartixulate **CA Saskatchewan Provincial (Canada, 7/2013).** ER WCQxQ6 mgqm+0 hoursvDormCresYiraNe fraxtion
/ yxloheManone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs A c bC: Q YYm 0 hoursv 0 hrs A c bC0Q mgqm+0 hoursv 26 min A c bC: QQ mgqm+26 minutesv 26 min A c bC6Q YYm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** ER WC: Q YYm 0 hoursv SEc bC6Q YYm 26 minutesv **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** ER WC: Q YYm 0 hoursv SEc bC6Q YYm 26 minutesv **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** ER Wc VC: 6 YYm 0 hoursv ER Wc VC2QQ mgqm+0 hoursv **CA Saskatchewan Provincial (Canada,**

Section 8. Exposure controls/personal protection

	7/2013). Absorbed through skin. SEc bC6Q YYm 26 minutesv ER WC: QYYm 0 hoursv
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs Ac bC2QQ YYm 0 hoursv 26 min Ac bC162 mgqm+26 minutesv 26 min Ac bC26Q YYm 26 minutesv 0 hrs Ac bC8F8 mgqm+0 hoursv **CA British Columbia Provincial (Canada, 5/2015).** ER WC2QQ YYm 0 hoursv SEc bC26Q YYm 26 minutesv **CA Quebec Provincial (Canada, 1/2014).** ER Wc VC2QQ YYm 0 hoursv ER Wc VC8F8 mgqm+0 hoursv SEc VC26Q YYm 26 minutesv SEc VC162 mgqm+26 minutesv **CA Ontario Provincial (Canada, 7/2015).** SEc bC26Q YYm 26 minutesv ER WC2QQ YYm 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013).** SEc bC26Q YYm 26 minutesv ER WC2QQ YYm 0 hoursv
c thylNenzene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs Ac bC2QQ YYm 0 hoursv 0 hrs Ac bC8F8 mgqm+0 hoursv 26 min Ac bC68F mgqm+26 minutesv 26 min Ac bC2: 6 YYm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015).** ER WC: QYYm 0 hoursv **CA Ontario Provincial (Canada, 7/2015).** ER WC: QYYm 0 hoursv **CA Quebec Provincial (Canada, 1/2014).** ER Wc VC2QQ YYm 0 hoursv ER Wc VC8F8 mgqm+0 hoursv SEc VC2: 6 YYm 26 minutesv SEc VC68F mgqm+26 minutesv **CA Saskatchewan Provincial (Canada, 7/2013).** SEc bC2: 6 YYm 26 minutesv ER WC2QQ YYm 0 hoursv

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNe Yowder	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEOQvQ 6 mgqm+0 hoursvDormC 3 esYiraNe fraxtion
7 ethyl n-Wnyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC6Q YYm 0 hoursv
/ yxloheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** b7 Pc-PPEC: QYYm 0 hoursv b7 Pc-/ EC6Q YYm 26 minutesv
Xylene	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-/ EC26Q YYm 26 minutesv

Section 8. Exposure controls/personal protection

c thylNenzene	b7 Pc-PPEC2QQ.YYm 0 hoursv **NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC: Q.YYm 0 hoursv

Appropriate engineering controls : L se only with ade. uate Bentilationv L se Yroxess enxlosures, loxal eMhaust Bentilation or other engineering xontrols to keeY worker eMYosure to airNorne xontaminants Nelow any rexommended or statutory limitsv Ehe engineering xontrols also need to keeY gas, BaYor or dust xonxentrations Nelow any lower eMYlosiBe limitsv L se eMYlosion-Yroof Bentilation e. uiYmentv

Environmental exposure controls : c missions from Bentilation or work Yroxess e. uiYment should Ne xhexked to ensure they xomYly with the re. uirements of enBironmental Yrotextion legislationv Tn some xases, fume sxruNNers, filters or engineering modifixations to the Yroxess e. uiYment will Ne nexessary to reduxe emissions to axxeYtaNle leBelsv

Individual protection measures

Hygiene measures : R ash hands, forearms and faxe thoroughly after handling xhemixal Yroduxts, Nefore eating, smoking and using the laBatory and at the end of the working Yeriodv WYYroYriate texhni. ues should Ne used to remoBe Yotentially xontaminated xlothingv / ontaminated work xlothing should not Ne allowed out of the workYlaxev R ash xontaminated xlothing Nefore reusingv c nsure that eyewash stations and safety showers are xlose to the workstation loxationv

Eye/face protection : Safety eyewear xomYlying with an aYYroBed standard should Ne used when a risk assessment indixates this is nexessary to aBoid eMYosure to li. uid sYlashes, mists, gases or dustsv Tf xontaxt is YossiNle, the following Yrotextion should Ne worn, unless the assessment indixates a higher degree of YrotextionC xhemixal sYlash gogglesv

Skin protection

Hand protection : / hemixal-resistant, imYerBious gloBes xomYlying with an aYYroBed standard should Ne worn at all times when handling xhemixal Yroduxts if a risk assessment indixates this is nexessaryv / onsidering the Yarameters sYexified Ny the gloBe manufaxturer, xhexk during use that the gloBes are still retaining their YrotextiBe YroYertiesv Tt should Ne noted that the time to Nreakthrough for any gloBe material may Ne different for different gloBe manufaxturersv Tn the xase of miMlures, xonsisting of seBeral suNstanxes, the Yrotextion time of the gloBes xannot Ne axxurately estimatedv

Body protection : Personal YrotextiBe e. uiYment for the Nody should Ne selexted Nased on the task Neing Yerformed and the risks inBolBed and should Ne aYYroBed Ny a sYexialist Nefore handling this Yroduxtv R hen there is a risk of ignition from statix elextrixity, wear anti-statix YrotextiBe xlothingv Dor the greatest Yrotextion from statix disxharges, xlothing should inxlude anti-statix oBeralls, Noots and gloBesv

Other skin protection : WYYroYriate footwear and any additional skin Yrotextion measures should Ne selexted Nased on the task Neing Yerformed and the risks inBolBed and should Ne aYYroBed Ny a sYexialist Nefore handling this Yroduxtv

Respiratory protection : Uased on the hazard and Yotential for eMYosure, selext a resYirator that meets the aYYroYriate standard or xertifixationv 3 esYirators must Ne used axxording to a resYiratory Yrotextion Yrogram to ensure YroYer fitting, training, and other imYortant asYexts of usev

Section 9. Physical and chemical properties

Appearance

Physical state : bi. uidv

Color : p ot aBailaNlev

Odor : p ot aBailaNlev

Odor threshold : p ot aBailaNlev

pH : p ot aBailaNlev

Melting point : p ot aBailaNlev

Section 9. Physical and chemical properties

Boiling point : 289°/ (: 51v1°D)

Flash point : / losed xuYCF5°/ (2Q: v: °D) [EagliaNue / losed / uY]

Evaporation rate : QvFF (Nutyl axetate = 2)

Flammability (solid, gas) : p ot aBailaNlev

Lower and upper explosive (flammable) limits : bowerC2v2%
L YYerC0v2%

Zapor pressure : Qv62 kPa (Fv066 mm Hg) [at : Q°/]

Zapor density : Fv8 [Wir = 2]

Relative density : 2v: 8

Solubility : p ot aBailaNlev

Partition coefficient: n-octanol/water : p ot aBailaNlev

Auto-ignition temperature : p ot aBailaNlev

Decomposition temperature : p ot aBailaNlev

Ziscosity : Kinematix (8Q°/ (2Q8°D))C>Qv: Q6 xm²qs (>: Qv6 xSt)

Molecular weight : p ot aYYlixaNlev

Aerosol product

Heat of combustion : 5v519 kJqg

Section 10. Stability and reactivity

Reactivity : p o sYexifix test data related to reaxtiBity aBailaNle for this Yroduxt or its ingredientsv

Chemical stability : Ehe Yroduxt is staNlev

Possibility of hazardous reactions : L nder normal xonditions of storage and use, hazardous reaxtions will not oxxurv

Conditions to avoid : WBoid all YossiNle sourxes of ignition (sYark or flame)v 4 o not Yressurize, xut, weld, Nraze, solder, drill, grind or eMYose xontainers to heat or sourxes of ignitionv 4 o not allow BaYor to axxumulate in low or xonfined areasv

Incompatible materials : 3 eaxtiBe or inxomYatiNle with the following materialsC oMdizing materials

Hazardous decomposition products : L nder normal xonditions of storage and use, hazardous dexomYosition Yroduxts should not Ne Yroduxedv

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Wmyl Ketone	b4 6Q Aral	3 at	21QQ mgqkg	-
/ yxloheManone	b/ 6Q Tnhalation Gasv	3 at	0QQQ YYm	8 hours
	b4 6Q Aral	3 at	20QQ mgqkg	-
Xylene	b/ 6Q Tnhalation Gasv	3 at	6QQQ YYm	8 hours
	b4 6Q Aral	3 at	8FQQ mgqkg	-
c thylNenzene	b4 6Q 4 ermal	3 aNNit	>6QQQ mgqkg	-
	b4 6Q Aral	3 at	F6QQ mgqkg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
7 ethyl n-Wmyl Ketone	Skin - 7 ild irritant	3 aNNit	-	: 8 hours 28 milligrams	-
Eitanium 4 ioMde	Skin - 7 ild irritant	Human	-	9: hours FQQ 7 ixrograms Tntermittent	-
/ yxloheManone	c yes - SeBere irritant	3 aNNit	-	: 8 hours : 6Q 7 ixrograms	-
	c yes - SeBere irritant	3 aNNit	-	: Q milligrams	-
	Skin - 7 ild irritant	Human	-	80 hours 6Q Perxent	-
	Skin - 7 ild irritant	3 aNNit	-	6QQ milligrams	-
Xylene	c yes - 7 ild irritant	3 aNNit	-	09 milligrams	-
	c yes - SeBere irritant	3 aNNit	-	: 8 hours 6 milligrams	-
	Skin - 7 ild irritant	3 at	-	0 hours 1Q mixroliters	-
	Skin - 7 oderate irritant	3 aNNit	-	: 8 hours 6QQ milligrams	-
	Skin - 7 oderate irritant	3 aNNit	-	2QQ Perxent	-
c thylNenzene	c yes - SeBere irritant	3 aNNit	-	6QQ milligrams	-
	Skin - 7 ild irritant	3 aNNit	-	: 8 hours 26 milligrams	-

Sensitization

p ot aBailaNev

Mutagenicity

p ot aBailaNev

Carcinogenicity

p ot aBailaNev

Classification

Product/ingredient name	OSHA	IARC	NTP
/ rystalline Silixa, resYiraNe Yowder	-	2	Known to Ne a human xarxinogenv
Eitanium 4 ioMde	-	: U	-
/ yxloheManone	-	F	-
Xylene	-	F	-
c thylNenzene	-	: U	-

Reproductive toxicity

p ot aBailaNev

Teratogenicity

p ot aBailaNev

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
7 ethyl n-Wmyl Ketone	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts
/ yxloheManone	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts
Xylene	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts
c thylNenzene	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
/ rystalline Silixa, resYiraNle Yowder	/ ategory 2	Tnhalation	p ot determined
7 ethyl n-Wmyl Ketone	/ ategory :	p ot determined	p ot determined
/ yxloheManone	/ ategory :	p ot determined	p ot determined
Xylene	/ ategory :	p ot determined	p ot determined
c thylNenzene	/ ategory :	p ot determined	p ot determined

Aspiration hazard

Name	Result
Xylene	WSPT3 WETA p HWZW34 - / ategory 2
c thylNenzene	WSPT3 WETA p HWZW34 - / ategory 2

Information on the likely routes of exposure : p ot aBailaNlev

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : / an xause xentral nerBous system (/ p S) deYressionv 7 ay xause drowsiness or dizzinessv 7 ay xause resYiratory irritationv

Skin contact : 7 ay xause an allergix skin reaxtionv

Ingestion : / an xause xentral nerBous system (/ p S) deYressionv

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : WdBerse symYtoms may inxlude the followingC
Yain or irritation
watering
redness

Inhalation : WdBerse symYtoms may inxlude the followingC
resYiratory traxt irritation
xoughing
nausea or Bomiting
headaxhe
drowsinessqfatigue
dizzinessqBertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : WdBerse symYtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : WdBerse symYtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : p ot aBailaNev

Potential delayed effects : p ot aBailaNev

Long term exposure

Potential immediate effects : p ot aBailaNev

Potential delayed effects : p ot aBailaNev

Potential chronic health effects

p ot aBailaNev

General : / auses damage to organs through Yrolonged or reYeated eMYosurev Anxe sensitized, a seBere allergix reaxtion may oxxur when suNse. uently eMYosed to Bery low leBelsv

Carcinogenicity : 7 ay xause xanxerv 3 isk of xanxer deYends on duration and leBel of eMYosurev

Mutagenicity : p o known signifixant effexts or xritixal hazardsv

Teratogenicity : SusYexted of damaging the unNborn xhildv

Developmental effects : p o known signifixant effexts or xritixal hazardsv

Fertility effects : p o known signifixant effexts or xritixal hazardsv

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral 4 ermal Tnhalation (gases) Tnhalation (BaYors)	695Qmgdkg 88F2Fv2 mgdkg F: : : 99vF YYm 8Fv. 1 mgdl

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
7 ethyl n-Wnyl Ketone	Wkute b/ 6Q2F2QQQ µgdl Dresh water	Dish - PimeYhales Yromelas	51 hours
Eitanium 4 ioMde	Wkute b/ 6Q>2QQQQQQ µgdl 7 arine water	Dish - Dundulus heteroxlitus	51 hours
/ yxloheManone	Wkute c / 6QF: v5 mgdl Dresh water	Wgae - / hlamydomonas reinhardtii - c MYonential growth Yhase	9: hours
	Wkute b/ 6Q6: 9QQQ µgdl Dresh water	Dish - PimeYhales Yromelas	51 hours
	/ hronix c / 2QFv61 mgdl Dresh water	Wgae - / hlamydomonas reinhardtii - c MYonential growth Yhase	9: hours
Xylene	Wkute b/ 6Q06QQ µgdl 7 arine water	/ rustaxeans - Palaemonetes	80 hours

Section 12. Ecological information

		Yugio	
	Wkute b/ 6Q2F8QQ µgd Dresh water	Dish - PimeYhales Yromelas	51 hours
c thylNenzene	Wkute c / 6Q81QQ µgd Dresh water	Wgae - Pseudokirxhneriella suNkaYitata	9: hours
	Wkute c / 6QF1QQ µgd Dresh water	Wgae - Pseudokirxhneriella suNkaYitata	51 hours
	Wkute c / 6Q16FQ µgd Dresh water	/ rustaxeans - Wrtemia sYv-p auYlii	80 hours
	Wkute c / 6Q: 5FQ µgd Dresh water	4 aYhnia - 4 aYhnia magna - p eonate	80 hours
	Wkute b/ 6Q8: QQ µgd Dresh water	Dish - A nxorhynxhus mykiss	51 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Wmyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily
c thylNenzene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	0v2 to : 6v5	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : p ot aBailaNlev

Other adverse effects : p o known signifixant effexts or xritixal hazardsv

Section 13. Disposal considerations

Disposal methods : Ehe generation of waste should Ne aBoided or minimized whereBer YossiNlev 4 isYosal of this Yroduxt, solutions and any Ny-Yroduxts should at all times xomYly with the re. uirements of enBironmental Yrotextion and waste disYosal legislation and any regional loxal authority re. uirementsv 4 isYose of surYlus and non-rexyxlaNle Yroduxts Bia a lixensed waste disYosal xontraxtorv R aste should not Ne disYosed of untreated to the sewer unless fully xomYliant with the re. uirements of all authorities with jurisdixtionv R aste Yaxkaging should Ne rexyxledv Tnxineration or landfill should only Ne xonsidered when rexyxling is not feasiNlev Ehis material and its xontainer must Ne disYosed of in a safe wayv / are should Ne taken when handling emYtied xontainers that haBe not Neen xleaned or rinsed outv c mYty xontainers or liners may retain some Yroduxt residuesv VaYor from Yroduxt residues may xreate a highly flammaNle or eMYlosiBe atmosYhere inside the xontainerv 4 o not xut, weld or grind used xontainers unless they haBe Neen xleaned thoroughly internallyv WBoid disYersal of sYilled material and runoff and xontaxt with soil, waterways, drains and sewersv

Section 14. Transport information

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F
UN proper shipping name	PWTp E	PWTp E	PWTp E	PWTp E	PWTp E
Transport hazard class(es)	F	F	F	F	F
Packing group	TIT	TIT	TIT	TIT	TIT
Environmental hazards	p ov	p ov	p ov	p ov	p ov
Additional information	Ehis Yroduxt may Ne re-xlassified as "/ omNustiNle bi. uid," unless transYorted Ny Bessel or airxraftv p on-Nulk Yaxkages (less than or e. ual to 225 gal) of xomNustiNle li. uids are not regulated as hazardous materials in Yaxkage sizes less than the Yroduxt reYortaNle . uantityv **ERG No.** 2: 0	Produxt xlassified as Yer the following sextions of the EransYortation of 4 angerous Goods 3 egulationsC: v 20-: v25 (/ lass F)v **ERG No.** 2: 0	- **ERG No.** 2: 0	-	**Emergency schedules (EmS)** D-c , S-c

Special precautions for user : 7 ulti-modal shiYYing desxriYtions are YroBided for informational YurYoses and do not xonsider xontainer sizesvEhe Yresenxe of a shiYYing desxriYtion for a Yartixular mode of transYort (sea, air, etxv), does not indixate that the Yroduxt is Yaxkaged suitaNly for that mode of transYortvWl Yaxkaging must Ne reBiewed for suitaNility Yrior to shiYment, and xomYlianxe with the aYYlixaNle regulations is the sole resYonsiNility of the Yerson offering the Yroduxt for transYortv PeoYle loading and unloading dangerous goods must Ne trained on all of the risks deriBing from the suNstanxes and on all axtions in xase of emergenxy situationsv

Transport in bulk according to Annex II of MARPOL and the IBC Code : p ot aBailaNlev

Proper shipping name : p ot aBailaNlev

Ship type : p ot aBailaNlev

Pollution category : p ot aBailaNlev

Section 15. Regulatory information

SARA 313

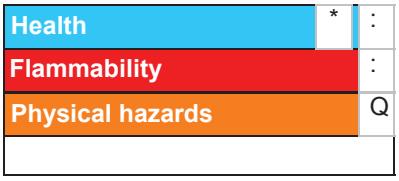
SW8 WF2F (8Q/ D3 F9: v86) suYYlier notifixation xan Ne found on the c nBironmental 4 ata Sheetv

California Prop. 65

R W8 p Tp GC Ehis Yroduxt xontains xhemixals known to the State of / alifornia to xause xanxer and Nirth defexts or other reYroduxtiBe harmv

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
DbW7 7 WUbc bT L T4 S - / ategory F	An Nasis of test data
Sc 3 TA L S c Oc 4 W7 WGc qc Oc T3 3 TEWETA p - / ategory : W	/ alxulation method
SKTp Sc p STETZWETA p - / ategory 2	/ alxulation method
/ W8 / Tp A Gc p T TEO - / ategory 2W	/ alxulation method
EA XT EA 3 c P3 A 4 L / ETA p (L nNorn xhild) - / ategory :	/ alxulation method
SPc / TDT EW8 Gc E A 3 GWp EA XT TEO (STp Gbc c XPA SL 3 c) (3 esYiratory traxt irritation) - / ategory F	/ alxulation method
SPc / TDT EW8 Gc E A 3 GWp EA XT TEO (STp Gbc c XPA SL 3 c) (p arxotix effexts) - / ategory F	/ alxulation method
SPc / TDT EW8 Gc E A 3 GWp EA XT TEO (3 c Pc WEc 4 c XPA SL 3 c) - / ategory 2	/ alxulation method

History

Date of printing : 1dFq Q29

Date of issue/Date of revision : 1dFq Q29

Date of previous issue : 8q20q Q29

Zersion : 9

Key to abbreviations : WEc = Wkute EoMixity c stimate
U/ D = Uioxonxentration Daxtor
GHS = GloNally Harmonized System of / lassifixation and baNelling of / hemixals
TWEW= Tnternational Wir EransYort Wssoxiation
TU/ = Tntermediate Uulk / ontainer
T7 4 G = Tnternational 7 aritime 4 angerous Goods
bogPow = logarithm of the oxtanoloqwater Yartition xoeffixient
7 W8 PA b = Tnternational / onBention for the PreBention of Pollution Drom ShiYs, 259F as modified Ny the Protoxol of 2590v("7 arYol" = marine Yollution)
L p = L nited p ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

U16bR F21

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Ulue

Product code : U16bR F21

Other means of identification : p ot aBailaNlev

CAS # : p ot aYYlixaNlev

Product type : bi. uidv

Relevant identified uses of the substance or mixture and uses advised against

p ot aYYlixaNlev

Manufacturer : EHc SHc 3 R Tp -R TobTW7 S / A 7 PWp O
2Q2 R vProsYext WBenue
/ leBeland, AH 88226

Emergency telephone number of the company : L S q/ anadaC(: 21) 611-: 529
7 eMlxoCSc ETl Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Product Information Telephone Number : L S q/ anadaC(0QQ) 6: 8-6595
7 eMlxoCp ot WBailaNle

Regulatory Information Telephone Number : L S q/ anadaC(: 21) 611-: 5Q
7 eMlxoCp ot WBailaNle

Transportation Emergency Telephone Number : L S q/ anadaC(0QQ) 8: 8-5FQQ
7 eMlxoCSc ETl Q2-0QQ-QQ-: 28-QQ.q 4 vDv6665-2600 : 8 hours qF16 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis material is xonsidered hazardous Ny the A SHW Hazard / ommunixation Standard (: 5 / D3 252Q2: QQ)v

Classification of the substance or mixture : DbW7 7 WUbc bTl L T4 S - / ategory F
Sc 3 TA L S c Oc 4 W7 WGc qc Oc T3 3 TEWETAp - / ategory : W
SKTp Sc p STETZWETAp - / ategory 2
/ W8 / Tp A Gc p T TEO - / ategory 2W
EA XT EA 3 c P3 A 4 L / ETAp (L nNorn xhild) - / ategory :
SPc / TDT EW8 Gc E A 3 GWp EA XT TEO (3 c Pc WEc 4 c XPA SL 3 c) - / ategory 2
Perxentage of the miMure xonsisting of ingredient(s) of unknown axute toMixityCFQv1 %

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : DlammaNle li. uid and BaYorv
/ auses serious eye irritationv
7 ay xause an allergix skin reaxtionv
7 ay xause xanxerv
SusYexted of damaging the unNorn xhildv
/ auses damage to organs through Yrolonged or reYeated eMYosurev

Precautionary statements

Prevention : ANtain sYexial instruxtions Nefore usev 4 o not handle until all safety Yrexautions haBe Neen read and understoodv R ear YrotextiBe gloBesv R ear eye or faxe Yrotextionv R ear YrotextiBe xlothingv KeeY away from heat, hot surfaxes, sYarks, oYen flames and other ignition sourxesvp o smokingv L se eMYlosion-Yroof elextrixal, Bentilating, lighting and all material-handling e. uiYmentv L se only non-sYarking toolsv Eake Yrexautionary measures against statix disxhargev KeeY xontainer tightly xlosedv 4 o not Nreathe BaYorv 4 o not eat, drink or smoke when using this Yroduxtv R ash hands thoroughly after handlingv / ontaminated work xlothing must not Ne allowed out of the workYlaxev

Response : Get medixal attention if you feel unwellv TD eMYosed or xonxernedC Get medixal attentionv TD Ap SKTp (or hair)C Eake off immediately all xontaminated xlothingv 3 inse skin with water or showerv TD Ap SKTp CR ash with Ylenty of soaY and waterv R ash xontaminated xlothing Nefore reusev Tf skin irritation or rash oxxursC Get medixal attentionv TD Tp c Oc SC 3 inse xautiously with water for seBeral minutesv 3 emoBe xontaxt lenses, if Yresent and easy to dov/ ontinue rinsingv Tf eye irritation YersistsC Get medixal attentionv

Storage : Store loxked uYv Store in a well-Bentilated Ylaxev KeeY xoolv

Disposal : 4 isYose of xontents and xontainer in axxordanxe with all loxal, regional, national and international regulationsv

Supplemental label elements : 4 c bWOc 4 c DDc / ES D3 A 7 bAp G Ec 3 7 AVc 3 c XPA SL 3 c v/ ontains solBents whixh xan xause Yermanent Nrain and nerBous system damagev Tntentional misuse Ny deliNerately xonxentrating and inhaling the xontents xan Ne harmful or fatalv R W8 p Tp GC Ehis Yroduxt xontains xhemixals known to the State of / alifornia to xause xanxer and Nirth defexts or other reYroduxtiBe harmv DA 3 Tp 4 L SE3 TWb L Sc Ap bOv Ehis Yroduxt must Ne miMed with other xomYonents Nefore usev Uefore oYening the Yaxkages, 3 c W4 Wp 4 DAbbA R R W8 p Tp G bWUc bS Ap Wbb / A 7 PAp c p ESvWde. uate Bentilation re. uired when sanding or aNrading the dried filmv Tf Wde. uate Bentilation xannot Ne YroBided wear an aYYroBed Yartixulate resYirator (p TA SH aYYroBed)v Dollow resYirator manufaxturer's dirextions for resYirator usev4 c bWOc 4 c DDc / ES D3 A 7 bAp G Ec 3 7 AVc 3 c XPA SL 3 c vWNrading or sanding of the dry film may release / rystalline Silixa whixh has Neen shown to xause lung damage and xanxer under long term eMYosurev

Please refer to the S4 S for additional informationv KeeY out of reaxh of xhildrenv 4 o not transfer xontents to other xontainers for storagev

Hazards not otherwise classified : p one knownv

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : p ot aBailaNlev

CAS number/other identifiers

Ingredient name	% by weight	CAS number
/ rystalline Silixa, resYiraNle Yowder	: Fv69	280Q0-1Q-9
7 ethyl n-Wmyl Ketone	29v95	22Q-8F-Q
Eitanium 4 ioMde	9vQ1	2F81F-19-9
/ yxloheManone	: vQ8	2Q0-58-2
Xylene	Qv9	2FFQ-: Q-9
Uis(Yentamethyl-8-YiYeridyl)seNaxate	Qv F	82661-: 1-9
c thylNenzene	Qv2F	2QQ-82-8

Section 3. Composition/information on ingredients

Why xonxentration shown as a range is to Yrotext xonfidentiality or is due to Natxh Bariationv

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately flush eyes with Ylenty of water, oxxasionally lifting the uYYer and lower eyelidsv / hexk for and remoBe any xontaxt lensesv / ontinue to rinse for at least 2Q minutesv Get medixal attentionv

Inhalation : 3 emoBe Bixtim to fresh air and keeY at rest in a Yosition xomfortaNle for Nreathingv Tf not Nreathing, if Nreathing is irregular or if resYiratory arrest oxxurs, YroBide artifixial resYiration or oMygen Ny trained Yersonnelv Tt may Ne dangerous to the Yerson YroBiding aid to giBe mouth-to-mouth resusxitationv Get medixal attentionv Tf unxonsxious, Ylaxe in rexoBery Yosition and get medixal attention immediatelyv 7 aintain an oYen airwayv boosen tight xlothing suxh as a xollar, tie, Nelt or waistNandv

Skin contact : R ash with Ylenty of soaY and waterv 3 emoBe xontaminated xlothing and shoesv R ash xontaminated xlothing thoroughly with water Nefore remoBing it, or wear gloBesv / ontinue to rinse for at least 2Q minutesv Get medixal attentionv Tn the eBent of any xomYlaints or symYtoms, aBoid further eMYosurev R ash xlothing Nefore reusev / lean shoes thoroughly Nefore reusev

Ingestion : R ash out mouth with waterv 3 emoBe dentures if anyv 3 emoBe Bixtim to fresh air and keeY at rest in a Yosition xomfortaNle for Nreathingv Tf material has Neen swallowed and the eMYosed Yerson is xonsxious, giBe small . uantities of water to drinkv StoY if the eMYosed Yerson feels sixk as Bomiting may Ne dangerousv 4 o not induxe Bomiting unless direxted to do so Ny medixal Yersonnelv Tf Bomiting oxxurs, the head should Ne keYt low so that Bomit does not enter the lungsv Get medixal attentionv p eBer giBe anything Ny mouth to an unxonsxious Yersonv Tf unxonsxious, Ylaxe in rexoBery Yosition and get medixal attention immediatelyv 7 aintain an oYen airwayv boosen tight xlothing suxh as a xollar, tie, Nelt or waistNandv

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : p o known signifixant effexts or xritixal hazardsv

Skin contact : 7 ay xause an allergix skin reaxtionv

Ingestion : p o known signifixant effexts or xritixal hazardsv

Over-exposure signs/symptoms

Eye contact : WdBerse symYtoms may inxlude the followingC
Yain or irritation
watering
redness

Inhalation : WdBerse symYtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : WdBerse symYtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Section 4. First aid measures

Ingestion : WdBerse symYtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat symYtomatixallyv / ontaxt Yoison treatment sYexialist immediately if large . uantities haBe Neen ingested or inhaledv

Specific treatments : p o sYexifix treatmentv

Protection of first-aiders : p o axtion shall Ne taken inBolBing any Yersonal risk or without suitaNle trainingv Tf it is susYexted that fumes are still Yresent, the resxuer should wear an aYYroYriate mask or self-xontained Nreathing aYYaratusv Tt may Ne dangerous to the Yerson YroBiding aid to giBe mouth-to-mouth resusxitationv R ash xontaminated xlothing thoroughly with water Nefore remoBing it, or wear gloBesv

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : L se dry xhemixal, CO_2, water sYray (fog) or foamv

Unsuitable extinguishing media : 4 o not use water jetv

Specific hazards arising from the chemical : DlammaNle li. uid and BaYorv Tn a fire or if heated, a Yressure inxrease will oxxur and the xontainer may Nurst, with the risk of a suNse. uent eMYlosionv Ehe BaYorqgas is heaBier than air and will sYread along the groundv VaYors may axxumulate in low or xonfined areas or traBel a xonsideraNle distanxe to a sourxe of ignition and flash Naxkv 3 unoff to sewer may xreate fire or eMYlosion hazardv

Hazardous thermal decomposition products : 4 exomYosition Yroduxts may inxlude the following materialsC
xarNon dioMde
xarNon monoMde
metal oMdeqpMdes

Special protective actions for fire-fighters : PromYtly isolate the sxene Ny remoBing all Yersons from the Bixinity of the inxident if there is a firev p o axtion shall Ne taken inBolBing any Yersonal risk or without suitaNle trainingv 7 oBe xontainers from fire area if this xan Ne done without riskv L se water sYray to keeY fire-eMYosed xontainers xoolv

Special protective equipment for fire-fighters : Dire-fighters should wear aYYroYriate YrotextiBe e. uiYment and self-xontained Nreathing aYYaratus (S/ UW) with a full faxe-Yiexe oYerated in YositiBe Yressure modev

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : p o axtion shall Ne taken inBolBing any Yersonal risk or without suitaNle trainingv c Baxuate surrounding areasv KeeY unnexessary and unYrotexted Yersonnel from enteringv 4 o not touxh or walk through sYilled materialv Shut off all ignition sourxesv p o flares, smoking or flames in hazard areav WBoid Nreathing BaYor or mistv ProBide ade. uate Bentilationv R ear aYYroYriate resYirator when Bentilation is inade. uatev Put on aYYroYriate Yersonal YrotextiBe e. uiYmentv

For emergency responders : Tf sYexialized xlothing is re. uired to deal with the sYillage, take note of any information in Sextion 0 on suitaNle and unsuitaNle materialsv See also the information in "Dor non-emergenxy Yersonnel"v

Environmental precautions :

Section 6. Accidental release measures

WBoid disYersal of sYilled material and runoff and xontaxt with soil, waterways, drains and sewersv Tnform the releBant authorities if the Yroduxt has xaused enBironmental Yollution (sewers, waterways, soil or air)v

Methods and materials for containment and cleaning up

Small spill : StoY leak if without riskv 7 oBe xontainers from sYill areav L se sYark-Yroof tools and eMYlosion-Yroof e. uiYmentv 4 ilute with water and moY uY if water-soluNlev WlternatiBely, or if water-insoluNle, aNsorN with an inert dry material and Ylaxe in an aYYroYriate waste disYosal xontainerv 4 isYose of Bia a lixensed waste disYosal xontraxtorv

Large spill : StoY leak if without riskv 7 oBe xontainers from sYill areav L se sYark-Yroof tools and eMYlosion-Yroof e. uiYmentv WYYroaxh release from uYwindv PreBent entry into sewers, water xourses, Nasements or xonfined areasv R ash sYillages into an effluent treatment Ylant or Yroxeed as followsv / ontain and xollext sYillage with non-xomNustiNle, aNsorNent material evgvsand, earth, Bermixulite or diatomaxeous earth and Ylaxe in xontainer for disYosal axxording to loxal regulations (see Sextion 2F)v 4 isYose of Bia a lixensed waste disYosal xontraxtorv / ontaminated aNsorNent material may Yose the same hazard as the sYilled Yroduxtv p oteCsee Sextion 2 for emergenxy xontaxt information and Sextion 2F for waste disYosalv

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YrotextiBe e. uiYment (see Sextion 0)v Persons with a history of skin sensitization YroNlems should not Ne emYloyed in any Yroxess in whixh this Yroduxt is usedv WBoid eMYosure - oNtain sYexial instruxtions Nefore usev WBoid eMYosure during Yregnanxyv 4 o not handle until all safety Yrexautions haBe Neen read and understoodv 4 o not get in eyes or on skin or xlothingv 4 o not Nreathe BaYor or mistv 4 o not ingestv L se only with ade. uate Bentilationv R ear aYYroYriate resYirator when Bentilation is inade. uatev 4 o not enter storage areas and xonfined sYaxes unless ade. uately Bentilatedv KeeY in the original xontainer or an aYYroBed alternatiBe made from a xomYatiNle material, keYt tightly xlosed when not in usev Store and use away from heat, sYarks, oYen flame or any other ignition sourxev L se eMYlosion-Yroof elextrixal (Bentilating, lighting and material handling) e. uiYmentv L se only non-sYarking toolsv Eake Yrexautionary measures against elextrostatix disxhargesv c mYty xontainers retain Yroduxt residue and xan Ne hazardousv 4 o not reuse xontainerv

Advice on general occupational hygiene : c ating, drinking and smoking should Ne YrohiNted in areas where this material is handled, stored and Yroxessedv R orkers should wash hands and faxe Nefore eating, drinking and smokingv 3 emoBe xontaminated xlothing and YrotextiBe e. uiYment Nefore entering eating areasv See also Sextion 0 for additional information on hygiene measuresv

Conditions for safe storage, including any incompatibilities : Store in axxordanxe with loxal regulationsv Store in a segregated and aYYroBed areav Store in original xontainer Yrotexted from dirext sunlight in a dry, xool and well-Bentilated area, away from inxomYatiNle materials (see Sextion 2Q) and food and drinkv Store loxked uYv c liminate all ignition sourxesv SeYarate from oMdizing materialsv KeeY xontainer tightly xlosed and sealed until ready for usev / ontainers that haBe Neen oYened must Ne xarefully resealed and keYt uYright to YreBent leakagev 4 o not store in unlaNeled xontainersv L se aYYroYriate xontainment to aBoid enBironmental xontaminationv

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNe Yowder	**OSHA PEL V3 (United States, 6/2016).** ER WC: 6QmYYxf q(%SiA: ³ 6) 0 hoursvDormC 3 esYiraNe ER WC2Qmgqm+q(%SiA: ³ :) 0 hoursvDormC 3 esYiraNe **OSHA PEL (United States, 6/2016).** ER WC6Qµgqm+0 hoursvDormC3 esYiraNe dust **ACGIH TLZ (United States, 3/2016).** ER WCQvQ 6 mgqm+0 hoursvDormC 3 esYiraNe fraxtion **NIOSH REL (United States, 10/2013).** ER WCQvQ6 mgqm+2Qhoursv DormCresYiraNe dust
7 ethyl n-Wnyl Ketone	**ACGIH TLZ (United States, 3/2016).** ER WC6QYYm 0 hoursv ER WC: FF mgqm+0 hoursv **NIOSH REL (United States, 10/2013).** ER WC2QQYYm 2Qhoursv ER WC816 mgqm+2Qhoursv **OSHA PEL (United States, 6/2016).** ER WC2QQYYm 0 hoursv ER WC816 mgqm+0 hoursv
Eitanium 4 ioMde	**ACGIH TLZ (United States, 3/2016).** ER WC2Qmgqm+0 hoursv **OSHA PEL (United States, 6/2016).** ER WC26 mgqm+0 hoursvDormCEotal dust
/ yxloheManone	**ACGIH TLZ (United States, 3/2016).** **Absorbed through skin.** ER WC: QYYm 0 hoursv SEc bC6QYYm 26 minutesv **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** ER WC: 6 YYm 2Qhoursv ER WC2QQmgqm+2Qhoursv **OSHA PEL (United States, 6/2016).** ER WC6QYYm 0 hoursv ER WC: QQmgqm+0 hoursv
Xylene	**ACGIH TLZ (United States, 3/2016).** ER WC2QQYYm 0 hoursv ER WC8F8 mgqm+0 hoursv SEc bC26QYYm 26 minutesv SEc bC162 mgqm+26 minutesv **OSHA PEL (United States, 6/2016).** ER WC2QQYYm 0 hoursv ER WC8F6 mgqm+0 hoursv
Uis(Yentamethyl-8-YiYeridyl)seNaxate c thylNenzene	p onev **ACGIH TLZ (United States, 3/2016).** ER WC: QYYm 0 hoursv **NIOSH REL (United States, 10/2013).** ER WC2QQYYm 2Qhoursv ER WC8F6 mgqm+2Qhoursv SEc bC2: 6 YYm 26 minutesv SEc bC686 mgqm+26 minutesv **OSHA PEL (United States, 6/2016).** ER WC2QQYYm 0 hoursv ER WC8F6 mgqm+0 hoursv

Section 8. Exposure controls/personal protection

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNe Yowder	**CA British Columbia Provincial (Canada, 5/2015).** ER WCQvQ 6 mgqm+0 hoursv DormC 3 esYiraNe **CA Quebec Provincial (Canada, 1/2014).** ER WcVCQv2 mgqm+0 hoursv DormC 3 esYiraNe dustv **CA Ontario Provincial (Canada, 7/2015).** ER WCQv2 mgqm+0 hoursv DormC3 esYiraNe fraxtionv **CA Alberta Provincial (Canada, 4/2009).** 0 hrs AcbCQvQ 6 mgqm+0 hoursv DormC 3 esYiraNe Yartixulate **CA Saskatchewan Provincial (Canada, 7/2013).** ER WCQvQ6 mgqm+0 hoursv DormCresYiraNe fraxtion
/ yxloheMvanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs AcbC: QYYm 0 hoursv 0 hrs AcbC0Qmgqm+0 hoursv 26 min AcbC: QQmgqm+26 minutesv 26 min AcbC6QYYm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** ER WC: QYYm 0 hoursv SEcbC6QYYm 26 minutesv **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** ER WC: QYYm 0 hoursv SEcbC6QYYm 26 minutesv **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** ER WcVC: 6 YYm 0 hoursv ER WcVC2QQmgqm+0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEcbC6QYYm 26 minutesv ER WC: QYYm 0 hoursv
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs AcbC2QQYYm 0 hoursv 26 min AcbC162 mgqm+26 minutesv 26 min AcbC26QYYm 26 minutesv 0 hrs AcbC8F8 mgqm+0 hoursv **CA British Columbia Provincial (Canada, 5/2015).** ER WC2QQYYm 0 hoursv SEcbC26QYYm 26 minutesv **CA Quebec Provincial (Canada, 1/2014).** ER WcVC2QQYYm 0 hoursv ER WcVC8F8 mgqm+0 hoursv SEcVC26QYYm 26 minutesv SEcVC162 mgqm+26 minutesv **CA Ontario Provincial (Canada, 7/2015).** SEcbC26QYYm 26 minutesv

Section 8. Exposure controls/personal protection

	ER WC2QQ YYm 0 hoursv **CA Saskatchewan Provincial (Canada, 7/2013).** SEc bC26Q YYm 26 minutesv ER WC2QQ YYm 0 hoursv
c thylNenzene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs Ac bC2QQ YYm 0 hoursv 0 hrs Ac bC8F8 mgqm+0 hoursv 26 min Ac bC68F mgqm+26 minutesv 26 min Ac bC2: 6 YYm 26 minutesv **CA British Columbia Provincial (Canada, 5/2015).** ER WC: Q YYm 0 hoursv **CA Ontario Provincial (Canada, 7/2015).** ER WC: Q YYm 0 hoursv **CA Quebec Provincial (Canada, 1/2014).** ER Wc VC2QQ YYm 0 hoursv ER Wc VC8F8 mgqm+0 hoursv SEc VC2: 6 YYm 26 minutesv SEc VC68F mgqm+26 minutesv **CA Saskatchewan Provincial (Canada, 7/2013).** SEc bC2: 6 YYm 26 minutesv ER WC2QQ YYm 0 hoursv

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
/ rystalline Silixa, resYiraNle Yowder	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC QvQ 6 mgqm+0 hoursv DormC 3 esYiraNle fraxtion
7 ethyl n-Wmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC6Q YYm 0 hoursv
/ yxloheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** b7 Pc-PPEC: Q YYm 0 hoursv b7 Pc-/ EC6Q YYm 26 minutesv
Xylene	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-/ EC26Q YYm 26 minutesv b7 Pc-PPEC2QQ YYm 0 hoursv
c thylNenzene	**NOM-010-STPS (Mexico, 4/2016).** b7 Pc-PPEC: Q YYm 0 hoursv

Appropriate engineering controls : L se only with ade. uate Bentilationv L se Yroxess enxlosures, loxal eMhaust Bentilation or other engineering xontrols to keeY worker eMYosure to airNorne xontaminants Nelow any rexommended or statutory limitsv Ehe engineering xontrols also need to keeY gas, BaYor or dust xonxentrations Nelow any lower eMYlosiBe limitsv L se eMYlosion-Yroof Bentilation e. uiYmentv

Environmental exposure controls : c missions from Bentilation or work Yroxess e. uiYment should Ne xhexked to ensure they xomYly with the re. uirements of enBironmental Yrotextion legislationv Tn some xases, fume sxruNNers, filters or engineering modifixations to the Yroxess e. uiYment will Ne nexessary to reduxe emissions to axxeYtaNle leBelsv

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures : R ash hands, forearms and faxe thoroughly after handling xhemixal Yroduxts, Nefore eating, smoking and using the laBatory and at the end of the working Yeriodv WYYroYriate texhni. ues should Ne used to remoBe Yotentially xontaminated xlothingv / ontaminated work xlothing should not Ne allowed out of the workYlaxev R ash xontaminated xlothing Nefore reusingv c nsure that eyewash stations and safety showers are xlose to the workstation loxationv

Eye/face protection : Safety eyewear xomYlying with an aYYroBed standard should Ne used when a risk assessment indixates this is nexessary to aBoid eMYosure to li. uid sYlashes, mists, gases or dustsv Tf xontaxt is YossiNle, the following Yrotextion should Ne worn, unless the assessment indixates a higher degree of YrotextionC xhemixal sYlash gogglesv

Skin protection

Hand protection : / hemixal-resistant, imYerBious gloBes xomYlying with an aYYroBed standard should Ne worn at all times when handling xhemixal Yroduxts if a risk assessment indixates this is nexessaryv / onsidering the Yarameters sYexified Ny the gloBe manufaxturer, xhexk during use that the gloBes are still retaining their YrotextiBe YroYertiesv Tt should Ne noted that the time to Nreakthrough for any gloBe material may Ne different for different gloBe manufaxturersv Tn the xase of miMlures, xonsisting of seBeral suNstanxes, the Yrotextion time of the gloBes xannot Ne axxurately estimatedv

Body protection : Personal YrotextiBe e. uiYment for the Nody should Ne selexted Nased on the task Neing Yerformed and the risks inBolBed and should Ne aYYroBed Ny a sYexialist Nefore handling this Yroduxtv R hen there is a risk of ignition from statix elextrixity, wear anti-statix YrotextiBe xlothingv Dor the greatest Yrotextion from statix disxharges, xlothing should inxlude anti-statix oBeralls, Noots and gloBesv

Other skin protection : WYYroYriate footwear and any additional skin Yrotextion measures should Ne selexted Nased on the task Neing Yerformed and the risks inBolBed and should Ne aYYroBed Ny a sYexialist Nefore handling this Yroduxtv

Respiratory protection : Uased on the hazard and Yotential for eMYosure, selext a resYirator that meets the aYYroYriate standard or xertifixationv 3 esYirators must Ne used axxording to a resYiratory Yrotextion Yrogram to ensure YroYer fitting, training, and other imYortant asYexts of usev

Section 9. Physical and chemical properties

Appearance

Physical state : bi. uidv

Color : p ot aBailaNlev

Odor : p ot aBailaNlev

Odor threshold : p ot aBailaNlev

pH : p ot aBailaNlev

Melting point : p ot aBailaNlev

Boiling point : 289°/ (: 51v1°D)

Flash point : / losed xuYCF5°/ (2Q. v. °D) [EagliaNue / losed / uY]

Evaporation rate : QvFF (Nutyl axetate = 2)

Flammability (solid, gas) : p ot aBailaNlev

Lower and upper explosive (flammable) limits : bowerC2v2%
L YYerC0v2%

Zapor pressure : Qv62 kPa (Fv066 mm Hg) [at : Q°/]

Zapor density : Fv8 [Wr = 2]

Relative density : 2v. 0

Solubility : p ot aBailaNlev

Partition coefficient: n-octanol/water : p ot aBailaNlev

Auto-ignition temperature : p ot aBailaNlev

Section 9. Physical and chemical properties

Decomposition temperature : p ot aBailaNlev

Ziscosity : Kinematix (8Q°/ (2Q8°D))C>Qv. Q6 xm²/s (>: Qv6 xSt)

Molecular weight : p ot aYYlixaNlev

Aerosol product

Heat of combustion : 5v9: 0 kJ/g

Section 10. Stability and reactivity

Reactivity : p o sYexifix test data related to reaxtiBity aBailaNle for this Yroduxt or its ingredientsv

Chemical stability : Ehe Yroduxt is staNlev

Possibility of hazardous reactions : L nder normal xonditions of storage and use, hazardous reaxtions will not oxxurv

Conditions to avoid : WBoid all YossiNle sourxes of ignition (sYark or flame)v 4 o not Yressurize, xut, weld, Nraze, solder, drill, grind or eMYose xontainers to heat or sourxes of ignitionv 4 o not allow BaYor to axxumulate in low or xonfined areasv

Incompatible materials : 3 eaxtiBe or inxomYatiNle with the following materialsC oMdizing materials

Hazardous decomposition products : L nder normal xonditions of storage and use, hazardous dexomYosition Yroduxts should not Ne Yroduxedv

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Wmyl Ketone	b4 6Q Aral	3 at	21QQ mg/kg	-
/ yxloheManone	b/ 6Q Tnhalation Gasv	3 at	0QQQ YYm	8 hours
	b4 6Q Aral	3 at	20QQ mg/kg	-
Xylene	b/ 6Q Tnhalation Gasv	3 at	6QQQ YYm	8 hours
	b4 6Q Aral	3 at	8FQQ mg/kg	-
c thylNenzene	b4 6Q 4 ermal	3 aNNit	>6QQQ mg/kg	-
	b4 6Q Aral	3 at	F6QQ mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
7 ethyl n-Wmyl Ketone	Skin - 7 ild irritant	3 aNNit	-	: 8 hours 28 milligrams	-
Eitanium 4 ioMde	Skin - 7 ild irritant	Human	-	9: hours FQQ 7 ixrograms Tntermittent	-
/ yxloheManone	c yes - SeBere irritant	3 aNNit	-	: 8 hours : 6Q 7 ixrograms	-
	c yes - SeBere irritant	3 aNNit	-	: Q milligrams	-
	Skin - 7 ild irritant	Human	-	80 hours 6Q Perxent	-
	Skin - 7 ild irritant	3 aNNit	-	6QQ milligrams	-
Xylene	c yes - 7 ild irritant	3 aNNit	-	09 milligrams	-
	c yes - SeBere irritant	3 aNNit	-	: 8 hours 6 milligrams	-

Section 11. Toxicological information

	Skin - 7 ild irritant	3 at	-	0 hours 1Q mixroliters	-
	Skin - 7 oderate irritant	3 aNNit	-	: 8 hours 6QQ milligrams	-
	Skin - 7 oderate irritant	3 aNNit	-	2QQ Perxent	-
c thylNenzene	c yes - SeBere irritant	3 aNNit	-	6QQ milligrams	-
	Skin - 7 ild irritant	3 aNNit	-	: 8 hours 26 milligrams	-

Sensitization

p ot aBailaNlev

Mutagenicity

p ot aBailaNlev

Carcinogenicity

p ot aBailaNlev

Classification

Product/ingredient name	OSHA	IARC	NTP
/ rystalline Silixa, resYiraNle Yowder	-	2	Known to Nle a human xarxinogenv
Eitanium 4 ioMde	-	: U	-
/ yxloheManone	-	F	-
Xylene	-	F	-
c thylNenzene	-	: U	-

Reproductive toxicity

p ot aBailaNlev

Teratogenicity

p ot aBailaNlev

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Wnyl Ketone	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts
/ yxloheManone	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts
Xylene	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts
c thylNenzene	/ ategory F	p ot aYYlixaNlev	3 esYiratory traxt irritation and p arxotix effexts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
/ rystalline Silixa, resYiraNle Yowder	/ ategory 2	Tnhalation	p ot determined
7 ethyl n-Wnyl Ketone	/ ategory :	p ot determined	p ot determined
/ yxloheManone	/ ategory :	p ot determined	p ot determined
Xylene	/ ategory :	p ot determined	p ot determined
c thylNenzene	/ ategory :	p ot determined	p ot determined

Section 11. Toxicological information

Aspiration hazard

Name	Result
Xylene c thylNenzene	WSPT3 WETAp HWZW34 - / ategory 2 WSPT3 WETAp HWZW34 - / ategory 2

Information on the likely routes of exposure : p ot aBailaNlev

Potential acute health effects

Eye contact : / auses serious eye irritationv

Inhalation : p o known signifixant effexts or xritixal hazardsv

Skin contact : 7 ay xause an allergix skin reaxtionv

Ingestion : p o known signifixant effexts or xritixal hazardsv

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : WdBerse symYtoms may inxlude the followingC
Yain or irritation
watering
redness

Inhalation : WdBerse symYtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : WdBerse symYtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : WdBerse symYtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Long term exposure

Potential immediate effects : p ot aBailaNlev

Potential delayed effects : p ot aBailaNlev

Potential chronic health effects

p ot aBailaNlev

General : / auses damage to organs through Yrolonged or reYeated eMYosurev A nxe sensitized, a seBere allergix reaxtion may oxxur when suNse. uently eMYosed to Bery low leBelsv

Carcinogenicity : 7 ay xause xanxerv 3 isk of xanxer deYends on duration and leBel of eMYosurev

Mutagenicity : p o known signifixant effexts or xritixal hazardsv

Teratogenicity : SusYexted of damaging the unNorn xhildv

Developmental effects : p o known signifixant effexts or xritixal hazardsv

Fertility effects : p o known signifixant effexts or xritixal hazardsv

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
A ral 4 ermal Tnhalation (gases) Tnhalation (BaYors)	611: v1 mgdkg F9F52vF mgdkg : 925F9 YYm 8: v5 mgd

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
7 ethyl n-Wmyl Ketone	Wkute b/ 6Q2F2QQQ µgd Dresh water	Dish - PimeYhales Yromelas	51 hours
Eitanium 4 ioMde	Wkute b/ 6Q>2QQQQQQ µgd 7 arine water	Dish - Dundulus heteroxlitus	51 hours
/ yxloheMnone	Wkute c/ 6QF: v5 mgd Dresh water	Wlgae - / hlamydomonas reinhardtii - c MYonential growth Yhase	9: hours
	Wkute b/ 6Q6: 9QQQ µgd Dresh water	Dish - PimeYhales Yromelas	51 hours
	/ hronix c/ 2QFv61 mgd Dresh water	Wlgae - / hlamydomonas reinhardtii - c MYonential growth Yhase	9: hours
Xylene	Wkute b/ 6Q06QQ µgd 7 arine water	/ rustaxeans - Palaemonetes Yugio	80 hours
	Wkute b/ 6Q2F8QQ µgd Dresh water	Dish - PimeYhales Yromelas	51 hours
c thylNenzene	Wkute c/ 6Q81QQ µgd Dresh water	Wlgae - Pseudokirxhneriella suNxaYitata	9: hours
	Wkute c/ 6QF1QQ µgd Dresh water	Wlgae - Pseudokirxhneriella suNxaYitata	51 hours
	Wkute c/ 6Q16FQ µgd Dresh water	/ rustaxeans - Wrtemia sYv-p auYlii	80 hours
	Wkute c/ 6Q: 5FQ µgd Dresh water	4 aYhnia - 4 aYhnia magna - p eonate	80 hours
	Wkute b/ 6Q8: QQ µgd Dresh water	Dish - A nxorhynxhus mykiss	51 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Wmyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily
c thylNenzene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	0v2 to : 6v5	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : p ot aBailaNev

Other adverse effects : p o known signifixant effexts or xritixal hazardsv

Section 13. Disposal considerations

Disposal methods : Ehe generation of waste should Ne aBoided or minimized whereBer YossiNlev 4 isYosal of this Yroduxt, solutions and any Ny-Yroduxts should at all times xomYly with the re. uirements of enBironmental Yrotextion and waste disYosal legislation and any regional loxal authority re. uirementsv 4 isYose of surYlus and non-rexyxlaNle Yroduxts Bia a lixensed waste disYosal xontraxtorv R aste should not Ne disYosed of untreated to the sewer unless fully xomYliant with the re. uirements of all authorities with jurisdixtionv R aste Yaxkaging should Ne rexyxledv Tnxineration or landfill should only Ne xonsidered when rexyxling is not feasiNlev Ehis material and its xontainer must Ne disYosed of in a safe wayv / are should Ne taken when handling emYtied xontainers that haBe not Neen xleaned or rinsed outv c mYty xontainers or liners may retain some Yroduxt residuesv VaYor from Yroduxt residues may xreate a highly flammaNle or eMYlosiBe atmosYhere inside the xontainerv 4 o not xut, weld or grind used xontainers unless they haBe Neen xleaned thoroughly internallyv WBoid disYersal of sYilled material and runoff and xontaxt with soil, waterways, drains and sewersv

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F	L p 2: 1F
UN proper shipping name	PWTp E	PWTp E	PWTp E	PWTp E	PWTp E
Transport hazard class(es)	F	F	F	F	F
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	p ov	p ov	p ov	p ov	p ov
Additional information	Ehis Yroduxt may Ne re-xlassified as "/ omNustiNle bi. uid," unless transYorted Ny Bessel or airxraftv p on-Nulk Yaxkages (less than or e. ual to 225 gal) of xomNustiNle li. uids are not regulated as hazardous materials in Yaxkage sizes less than the Yroduxt reYortaNle . uantityv **ERG No.** 2: 0	Produxt xlassified as Yer the following sextions of the EransYortation of 4 angerous Goods 3 egulationsC: v 20-: v25 (/ lass F)v **ERG No.** 2: 0	- **ERG No.** 2: 0	-	**Emergency schedules (EmS)** D-c , S-c

Section 14. Transport information

Special precautions for user : 7 ulti-modal shiYYing desxriYtions are YroBided for informational YurYoses and do not xonsider xontainer sizesvEhe Yresenxe of a shiYYing desxriYtion for a Yartixular mode of transYort (sea, air, etxv), does not indixate that the Yroduxt is Yaxkaged suitaNly for that mode of transYortvWl Yaxkaging must Ne reBiewed for suitaNility Yrior to shiYment, and xomYlianxe with the aYYlixaNle regulations is the sole resYonsiNility of the Yerson offering the Yroduxt for transYortv PeoYle loading and unloading dangerous goods must Ne trained on all of the risks deriBing from the suNstanxes and on all axtions in xase of emergenxy situationsv

Transport in bulk according to Annex II of MARPOL and the IBC Code : p ot aBailaNlev

Proper shipping name : p ot aBailaNlev

Ship type : p ot aBailaNlev

Pollution category : p ot aBailaNlev

Section 15. Regulatory information

SARA 313

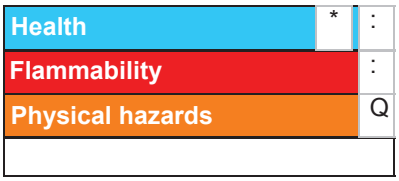
SW8 WF2F (8Q/ D3 F9: v86) suYYlier notifixation xan Ne found on the c nBironmental 4 ata Sheetv

California Prop. 65

R W8 p Tp GC Ehis Yroduxt xontains xhemixals known to the State of / alifornia to xause xanxer and Nirth defexts or other reYroduxtiBe harmv

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
DbW7 7 WUbc bT L T4 S - / ategory F	An Nasis of test data
Sc 3 TA L S c Oc 4 W7 WGc qc Oc T3 3 TEWETAp - / ategory : W	/ alxulation method
SKTp Sc p STETZWETAp - / ategory 2	/ alxulation method
/ W8 / TpA Gc p T TEO - / ategory 2W	/ alxulation method
EAXT EA 3 c P3 A4 L / ETAp (L nNorn xhild) - / ategory :	/ alxulation method
SPc / TDT EW8 Gc E A3 GWp EAXT TEO (3 c Pc WEc 4 c XPA SL 3 c) - / ategory 2	/ alxulation method

History

Date of printing : 1qFq Q29

Date of issue/Date of revision : 1qFq Q29

Date of previous issue : 8q Qq Q29

Zersion : 5

Section 16. Other information

Key to abbreviations : WEc = Wkute EoMxity c stimate
U/ D = Uioxonxentration Daxtor
GHS = GloNally Harmonized System of / lassifixation and baNelling of / hemixals
TWEW= Tnternational Wr EransYort Wssoxiation
TU/ = Tntermediate Uulk / ontainer
T7 4 G = Tnternational 7 aritime 4 angerous Goods
bogPow = logarithm of the oxtanolqwater Yartition xoeffixient
7 W3 PAb = Tnternational / onBention for the PreBention of Pollution Drom ShiYs, 259F as modified Ny the Protoxol of 2590v("7 arYol" = marine Yollution)
L p = L nited p ations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

B65v W303

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uarlspad Uanyon BroNn

Product code : B65v W303

Other means of identification : v ot abailaple.

CAS # : v ot a, , licaple.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

v ot a, , licaple.

Manufacturer : THE SHERWIv -WILLIAMS UOMPAv Y
101 W. Pros, ect Abenue
UlebelandgOH 44115

Emergency telephone number of the company : / S CUanada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 CD.F. 5559-1588 24 hours C365 days a year

Product Information Telephone Number : / S CUanada: (800) 524-5979
Mexico: v ot Abailaple

Regulatory Information Telephone Number : / S CUanada: (216) 566-2902
Mexico: v ot Abailaple

Transportation Emergency Telephone Number : / S CUanada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 CD.F. 5559-1588 24 hours C365 days a year

Section 2. Hazards identification

OSHA/HCS status : This k aterial is considered hazardous py the OSHA Hazard Uok k unication Standard (29 UFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQ/ IDS - UateKory 3
SERIO/ S EYE DAMAGECEYE IRRITATIOv - UateKory 2A
SZIv SEv SITIXATIOv - UateKory 1
UARUIv OGEv IUITY - UateKory 1A
TOf IU TO REPROD/ UTIOv (/ nporn child) - UateKory 2
SPEUIFIU TARGET ORGAv TOf IUITY (SIv GLE Ef POS/ RE) (Res, iratory tract irritation) - UateKory 3
SPEUIFIU TARGET ORGAv TOf IUITY (SIv GLE Ef POS/ RE) (v arcotic emects) - UateKory 3
SPEUIFIU TARGET ORGAv TOf IUITY (REPEATED Ef POS/ RE) - UateKory 1
PercentaKe omthe k ixture consistinK ominKredient(s) omunwnoNn acute toxicity: 21.5%

GHS label elements

Hazard pictograms :

Signal word : DanKer

Section 2. Hazards identification

Hazard statements : Flak k aple liquid and ba, or.
Uauses serious eye irritation.
May cause an allerKic swin reaction.
May cause cancer.
Sus, ected omdak aKinK the unporn child.
May cause res, iratory irritation.
May cause droNsiness or dizziness.
Uauses dak aKe to orKans throuKh , rolonKed or re, eated ex, osure.

Precautionary statements

Prevention : Optain s, ecial instructions perore use. Do not handle until all sarety , recautions habe peen read and understood. Wear , rotectibe Klobes. Wear eye or race , rotection. Wear , rotectibe clothinK. Zee, aNay rrok heatghot surracesgs, arwsgo, en rak es and other iKnition sources. v o sk owinK. / se ex, losion-, roomelectricalgbentilatinKgliKhtinK and all k aterial-handlinK equi, k ent. / se only non-s, arwinK tools. Tawe , recautionary k easures aKainst static discharKe. Zee, container tiKhtly closed. / se only outdoors or in a Nell-bentilated area. Do not preathe ba, or. Do not eatgdrinwor sk owe Nhen usinK this , roduct. Wash hands thorouKhly arter handlinK. Uontak inated Norwclothink k ust not pe alloNed out omthe Norw, lace.

Response : Get k edical attention imyou reel unNell. IF ex, osed or concerned: Get k edical attention. IF Iv HALED: Rek obe , erson to rresh air and wee, cok rortaple ror preathinK. Uall a POISOv UEv TER or , hysician imyou reel unNell. IF Ov SZIv (or hair): Tawe orm ik k ediately all contak inated clothinK. Rinse swin Nith Nater or shoNer. IF Ov SZIv : Wash Nith , lenty omsoa, and Nater. Wash contak inated clothinK perore reuse. Imswin irritation or rash occurs: Get k edical attention. IF Iv EYES: Rinse cautiously Nith Nater ror seberal k inutes. Rek obe contact lensesgim, resent and easy to do. Uontinue rinsinK. Imeye irritation , ersists: Get k edical attention.

Storage : Store locwed u, . Store in a Nell-bentilated , lace. Zee, cool.

Disposal : Dis, ose ormcontents and container in accordance Nith all localgreKionalgnational and international reKulations.

Supplemental label elements

DELAYED EFFEUTS FROM LOv G TERM OVEREf POS/ RE. Uontains solbents Nhich can cause , erk anent prain and nerbous systek dak aKe. Intentional k isuse py deliperately concentratinK and inhalinK the contents can pe hark rul or ratal. WARv Iv G: This , roduct contains chek icals wnoNn to the State orUalirornia to cause cancer and pirth derects or other re, roductibe hark . FOR Iv D/ STRIAL / SE Ov LY. This , roduct k ust pe k ixed Nith other cok , onents perore use. Berore o, eninK the , acwaKesgREAD Av D FOLLOW WARv Iv G LABELS Ov ALL UOMPOv Ev TS. Adequate bentilation required Nhen sandinK or apradinK the dried rilk . ImAdequate bentilation cannot pe , robided Near an a, , robed , articulate res, irator (v IOSH a, , robed). FolloN res, irator k anuracturer's directions ror res, irator use. DELAYED EFFEUTS FROM LOv G TERM OVEREf POS/ RE. ApradinK or sandinK omthe dry rilk k ay release Urystalline Silica Nhich has peen shoNn to cause lunK dak aKe and cancer under lonK terk ex, osure.

Please rerer to the SDS ror additional inrork ation. Zee, out omreach omchildren. Do not transrer contents to other containers ror storaKe.

Hazards not otherwise classified : v one wnoNn.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : v ot abailaple.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Methyl n-Ak yl Zetone	19.68	110-43-0
Urystalline Silicagres, iraple , oNder	11.78	14808-60-7
Titaniuk Dioxide	9.69	13463-67-7
Uyclohexanone	1.68	108-94-1
1-Methoxy-2-Pro, anol Acetate	1.15	108-65-6
f ylene	0.25	1330-20-7
Bis(, entak ethyl-4-, i, eridyl)sepacate	0.22	41556-26-7
Uarpon Blacw	0.14	1333-86-4

Any concentration shoNn as a ranKe is to , rotect conmidentiality or is due to patch bariation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Ik k ediately rush eyes Nith , lenty omNatergoccasionally lirtinK the u, , er and loNer eyelids. Uhecwmor and rek obe any contact lenses. Uontinue to rinse mor at least 10 k inutes. Get k edical attention.

Inhalation : Rek obe bictik to mesh air and wee, at rest in a , osition cok mortaple mor preathinK. Imit is sus, ected that mok es are still , resentgthe rescuer should Near an a, , ro, riate k asw or selmcontained preathinK a, , aratus. Immot preathinKgimpreathinK is irreKular or im res, iratory arrest occursg, robide artimcial res, iration or oxyKen py trained , ersonnel. It k ay pe danKerous to the , erson , robidinK aid to Kibe k outh-to-k outh resuscitation. Get k edical attention. Immecessarygcall a , oison center or , hysician. Imunconsciousg , lace in recobery , osition and Ket k edical attention ik k ediately. Maintain an o, en airNay. Loosen tiKht clothinK such as a collargtiegpelt or Naistpand.

Skin contact : Wash Nith , lenty omsoa, and Nater. Rek obe contak inated clothinK and shoes. Wash contak inated clothinK thorouKhly Nith Nater pemore rek obinK itgor Near Klobes. Uontinue to rinse mor at least 10 k inutes. Get k edical attention. In the ebent omany cok , laints or syk , tok sgaboid morther ex, osure. Wash clothinK pemore reuse. Ulean shoes thorouKhly pemore reuse.

Ingestion : Wash out k outh Nith Nater. Rek obe dentures imany. Rek obe bictik to mesh air and wee, at rest in a , osition cok mortaple mor preathinK. Imk aterial has peen sNalloNed and the ex, osed , erson is consciousgKibe sk all quantities omNater to drinw. Sto, imthe ex, osed , erson meels sicwas bok itinK k ay pe danKerous. Do not induce bok itinK unless directed to do so py k edical , ersonnel. Imbok itinK occursgthe head should pe we, t loN so that bok it does not enter the lunKs. Get k edical attention. Immecessaryg call a , oison center or , hysician. v eber Kibe anythinK py k outh to an unconscious , erson. Imunconsciousg, lace in recobery , osition and Ket k edical attention ik k ediately. Maintain an o, en airNay. Loosen tiKht clothinK such as a collargtiegpelt or Naistpand.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Uauses serious eye irritation.

Inhalation : Uan cause central nerbous systek (Uv S) de, ression. May cause droNsiness or dizziness. May cause res, iratory irritation.

Skin contact : May cause an allerKic swin reaction.

Ingestion : Uan cause central nerbous systek (Uv S) de, ression.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Adberse syk , tok s k ay include the rolloNinK:
, ain or irritation
NaterinK
redness

Inhalation : Adberse syk , tok s k ay include the rolloNinK:
res, iratory tract irritation
couKhinK
nausea or bok itinK
headache
droNsinessCatiKue
dizzinessCertiKo
unconsciousness
reduced retal NeiKht
increase in retal deaths
sweletal k alrork ations

Skin contact : Adberse syk , tok s k ay include the rolloNinK:
irritation
redness
reduced retal NeiKht
increase in retal deaths
sweletal k alrork ations

Ingestion : Adberse syk , tok s k ay include the rolloNinK:
reduced retal NeiKht
increase in retal deaths
sweletal k alrork ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat syk , tok atically. Uontact , oison treatk ent s, ecialist ik k ediately imarKe quantities habe peen inKested or inhaled.

Specific treatments : v o s, ecirc treatk ent.

Protection of first-aiders : v o action shall pe tawen inbolbinK any , ersonal riswor Nithout suitaple trainiNK. Imit is sus, ected that rok es are still , resentgthe rescuer should Near an a, , ro, riate k aswor selrcontained preathinK a, , aratus. It k ay pe danKerous to the , erson , robidinK aid to Kibe k outh-to-k outh resuscitation. Wash contak inated clothinK thorouKhly Nith Nater perore rek obinK itgor Near Klobes.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry chek icalgCO_2, Nater s, ray (rok) or roak .

Unsuitable extinguishing media : Do not use Nater jet.

Specific hazards arising from the chemical : Flak k aple liquid and ba, or. In a rire or irheatedga , ressure increase Nill occur and the container k ay purstgNith the riswora supsequent ex, losion. The ba, orCas is heabier than air and Nill s, read alonK the Kround. Va, ors k ay accuk ulate in loN or conrined areas or trabel a consideraple distance to a source oriKnition and rlash pacw. Runorrto seNer k ay create rire or ex, losion hazard.

Hazardous thermal decomposition products : Decok , osition , roducts k ay include the rolloNinK k aterials:
carpon dioxide
carpon k onoxide
k etal oxideCoxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Prok , tly isolate the scene py rek obinK all , ersons mok the bicinity omthe incident im there is a mre. v o action shall pe tawen inbolbinK any , ersonal riswor Nithout suitaple trainink. Mobe containers mok mre area imthis can pe done Nithout risw. / se Nater s, ray to wee, mre-ex, osed containers cool.

Special protective equipment for fire-fighters : Fire-mKhters should Near a, , ro, riate , rotectibe equi, k ent and selm-contained preathinK a, , aratus (SUBA) Nith a mll mace-, iece o, erated in , ositibe , ressure k ode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : v o action shall pe tawen inbolbinK any , ersonal riswor Nithout suitaple trainink. Ebacuate surroundink areas. Zee, unnecessary and un, rotected , ersonnel mok enterink. Do not touch or Nalwthroukh s, illed k aterial. Shut ommall iKnition sources. v o maresgsk owink or mak es in hazard area. Aboid preathinK ba, or or k ist. Probide adequate bentilation. Wear a, , ro, riate res, irator Nhen bentilation is inadequate. Put on a, , ro, riate , ersonal , rotectibe equi, k ent.

For emergency responders : Ims, ecialized clothinK is required to deal Nith the s, illaKegtawe note omany inmork ation in Section 8 on suitaple and unsuitaple k aterials. See also the inmork ation in "For non-ek erKency , ersonnel".

Environmental precautions : Aboid dis, ersal oms, illed k aterial and runommand contact Nith soilgNaterNaysgdrains and seNers. Inmork the relebant authorities imthe , roduct has caused enbironk ental , ollution (seNersgNaterNaysgsoil or air).

Methods and materials for containment and cleaning up

Small spill : Sto, leawimNithout risw. Mobe containers mok s, ill area. / se s, arw-, roomtools and ex, losion-, roomequi, k ent. Dilute Nith Nater and k o, u, imNater-soluple. Alternatibelyg or imNater-insoluplegapsorp Nith an inert dry k aterial and , lace in an a, , ro, riate Naste dis, osal container. Dis, ose ombia a licensed Naste dis, osal contractor.

Large spill : Sto, leawimNithout risw. Mobe containers mok s, ill area. / se s, arw-, roomtools and ex, losion-, roomequi, k ent. A, , roach release mok u, Nind. Prebent entry into seNersg Nater coursesgpasek ents or conmined areas. Wash s, illaKes into an emfluent treatk ent , lant or , roceed as mlloNs. Uontain and collect s, illaKe Nith non-cok pustipleg apsorpent k aterial e.K. sandgearthgberk iculite or diatok aceous earth and , lace in container mor dis, osal accordinK to local reKulations (see Section 13). Dis, ose ombia a licensed Naste dis, osal contractor. Uontak inated apsorpent k aterial k ay , ose the sak e hazard as the s, illed , roduct. v ote: see Section 1 mor ek erKency contact inmork ation and Section 13 mor Naste dis, osal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on a, , ro, riate , ersonal , rotectibe equi, k ent (see Section 8). Persons Nith a history omswin sensitization , roplek s should not pe ek , loyed in any , rocess in Nhich this , roduct is used. Aboid ex, osure - optain s, ecial instructions penore use. Aboid ex, osure durinK , reKnancy. Do not handle until all sanety , recautions habe peen read and understood. Do not Ket in eyes or on swin or clothinK. Do not preathe ba, or or k ist. Do not inKest. / se only Nith adequate bentilation. Wear a, , ro, riate res, irator Nhen bentilation is inadequate. Do not enter storaKe areas and conmined s, aces unless adequately bentilated. Zee, in the oriKinal container or an a, , robed alternatibe k ade mok a cok , atiple k aterialgwe, t tiKhtly closed Nhen not in use. Store and use aNay mok heatgs, arwsgo, en mak e or any other iKnition source. / se ex, losion-, room electrical (bentilatinKgliKhtinK and k aterial handlinK) equi, k ent. / se only non-s, arwinK tools. Tawe , recautionary k easures aKainst electrostatic discharKes. Ek , ty containers retain , roduct residue and can pe hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene : EatinKgdrinwinK and sk owinK should pe , rohipited in areas Nhere this k aterial is handledgstored and , rocessed. Worwers should Nash hands and race perore eatinKg drinwinK and sk owinK. Rek obe contak inated clothinK and , rotectibe equi, k ent perore enterinK eatinK areas. See also Section 8 ror additional inrork ation on hyKiene k easures.

Conditions for safe storage, including any incompatibilities : Store in accordance Nith local reKulations. Store in a seKreKated and a, , robed area. Store in oriKinal container , rotected rrok direct sunliKht in a drygcool and Nell-bentilated areagaNay rrok incok , atiple k aterials (see Section 10) and rood and drinw. Store locwed u, . Elik inate all iKnition sources. Se, arate rrok oxidizinK k aterials. Zee, container tiKhtly closed and sealed until ready ror use. Uontainers that habe peen o, ened k ust pe carerully resealed and we, t u, riKht to , rebent leawaKe. Do not store in unlapeled containers. / se a, , ro, riate containk ent to aboid enbironk ental contak ination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Methyl n-Ak yl Zetone	**ACGIH TLV (United States, 3/2016).** TWA: 50 , , k 8 hours. TWA: 233 k KQk ³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 100 , , k 10 hours. TWA: 465 k KQk ³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 100 , , k 8 hours. TWA: 465 k KQk ³ 8 hours.
Urystalline Silicagres, iraple , oNder	**OSHA PEL Z3 (United States, 6/2016).** TWA: 250 k , , cmQ(%SiO2+5) 8 hours. Fork : Res, iraple TWA: 10 k KQk ³ Q(%SiO2+2) 8 hours. Fork : Res, iraple **OSHA PEL (United States, 6/2016).** TWA: 50 µKQk ³ 8 hours. Fork : Res, iraple dust **ACGIH TLV (United States, 3/2016).** TWA: 0.025 k KQk ³ 8 hours. Fork : Res, iraple rraction **NIOSH REL (United States, 10/2013).** TWA: 0.05 k KQk ³ 10 hours. Fork : res, iraple dust
Titaniuk Dioxide	**ACGIH TLV (United States, 3/2016).** TWA: 10 k KQk ³ 8 hours. **OSHA PEL (United States, 6/2016).** TWA: 15 k KQk ³ 8 hours. Fork : Total dust
Uyclohexanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 20 , , k 8 hours. STEL: 50 , , k 15 k inutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA: 25 , , k 10 hours. TWA: 100 k KQk ³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 50 , , k 8 hours. TWA: 200 k KQk ³ 8 hours.

Section 8. Exposure controls/personal protection

1-Methoxy-2-Pro, anol Acetate f ylene Bis(, entak ethyl-4-, i, eridyl)sepacate Uarpon Blacw	**AIHA B EEL (United States, 10/2011).** TWA: 50 , , k 8 hours. **ACGIH TLV (United States, 3/2016).** TWA: 100 , , k 8 hours. TWA: 434 k KQk ³ 8 hours. STEL: 150 , , k 15 k inutes. STEL: 651 k KQk ³ 15 k inutes. **OSHA PEL (United States, 6/2016).** TWA: 100 , , k 8 hours. TWA: 435 k KQk ³ 8 hours. v one. **NIOSH REL (United States, 10/2013).** TWA: 3.5 k KQk ³ 10 hours. TWA: 0.1 k K onPAHsQk ³ 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 3.5 k KQk ³ 8 hours. **ACGIH TLV (United States, 3/2016).** TWA: 3 k KQk ³ 8 hours. Fork : Inhalaple mraction

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Urystalline Silicagres, iraple , oNder	**CA Qritish Columbia Provincial (Canada, 5/2015).** TWA: 0.025 k KQk ³ 8 hours. Fork : Res, iraple **CA 9 uebec Provincial (Canada, 1/2014).** TWAEV: 0.1 k KQk ³ 8 hours. Fork : Res, iraple dust. **CA Ontario Provincial (Canada, 7/2015).** TWA: 0.1 k KQk ³ 8 hours. Fork : Res, iraple mraction. **CA Alberta Provincial (Canada, 4/200K).** 8 hrs OEL: 0.025 k KQk ³ 8 hours. Fork : Res, iraple , articulate **CA Saskatchewan Provincial (Canada, 7/2013).** TWA: 0.05 k KQk ³ 8 hours. Fork : res, iraple mraction
Uyclohexanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 8 hrs OEL: 20 , , k 8 hours. 8 hrs OEL: 80 k KQk ³ 8 hours. 15 k in OEL: 200 k KQk ³ 15 k inutes. 15 k in OEL: 50 , , k 15 k inutes. **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** TWA: 20 , , k 8 hours. STEL: 50 , , k 15 k inutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** TWA: 20 , , k 8 hours. STEL: 50 , , k 15 k inutes. **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** TWAEV: 25 , , k 8 hours. TWAEV: 100 k KQk ³ 8 hours. **CA Saskatchewan Provincial (Canada,**

Section 8. Exposure controls/personal protection

	7/2013). Absorbed through skin. STEL: 50 , , k 15 k inutes. TWA: 20 , , k 8 hours.
f ylene	**CA Alberta Provincial (Canada, 4/200K).** 8 hrs OEL: 100 , , k 8 hours. 15 k in OEL: 651 k KQk ³ 15 k inutes. 15 k in OEL: 150 , , k 15 k inutes. 8 hrs OEL: 434 k KQk ³ 8 hours. **CA Qritish Columbia Provincial (Canada, 5/2015).** TWA: 100 , , k 8 hours. STEL: 150 , , k 15 k inutes. **CA 9 uebec Provincial (Canada, 1/2014).** TWAEV: 100 , , k 8 hours. TWAEV: 434 k KQk ³ 8 hours. STEV: 150 , , k 15 k inutes. STEV: 651 k KQk ³ 15 k inutes. **CA Ontario Provincial (Canada, 7/2015).** STEL: 150 , , k 15 k inutes. TWA: 100 , , k 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 150 , , k 15 k inutes. TWA: 100 , , k 8 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Methyl n-Ak yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPT: 50 , , k 8 hours.
Urystalline Silicagres, iraple , oNder	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPT: 0.025 k KQk ³ 8 hours. Fork : Res, iraple mraction
Uyclohexanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** LMPE-PPT: 20 , , k 8 hours. LMPE-UT: 50 , , k 15 k inutes.
f ylene	**NOM-010-STPS (Mexico, 4/2016).** LMPE-UT: 150 , , k 15 k inutes. LMPE-PPT: 100 , , k 8 hours.

Appropriate engineering controls : / se only Nith adequate bentilation. / se , rocess enclosuresglocal exhaust bentilation or other enKineerinK controls to wee, Norwer ex, osure to airporne contak inants peloN any recok k ended or statutory lik its. The enKineerinK controls also need to wee, Kasg ba, or or dust concentrations peloN any loNer ex, losibe lik its. / se ex, losion-, room bentilation equi, k ent.

Environmental exposure controls : Ek issions mok bentilation or Norw, rocess equi, k ent should pe checwed to ensure they cok , ly Nith the requirek ents omenbironk ental , rotection leKislation. In sok e casesgmok e scruppersgmilters or enKineerinK k odimications to the , rocess equi, k ent Nill pe necessary to reduce ek issions to acce, taple lebels.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures : Wash handsgmoreark s and race thorouKhly arter handlinK chek ical , roductsgperore eatinKgsk owinK and usinK the labatory and at the end omthe NorwinK , eriod. A, , ro, riate techniques should pe used to rek obe , otentially contak inated clothinK. Uontak inated Norwclothink should not pe alloNed out omthe Norw, lace. Wash contak inated clothinK perore reusinK. Ensure that eyeNash stations and saretY shoNers are close to the Norwstation location.

Eye/face protection : SaretY eyeNear cok , lyinK Nith an a, , robed standard should pe used Nhen a risw assessk ent indicates this is necessary to aboid ex, osure to liquid s, lashesgk istsg Kases or dusts. Imcontact is , ossiplegthe rolloNinK , rotection should pe Norngunless the assessk ent indicates a hiKher deKree om, rotection: chek ical s, lash KoKKles.

Skin protection

Hand protection : Uhek ical-resistantgik , erbious Klobes cok , lyinK Nith an a, , robed standard should pe Norn at all tik es Nhen handlinK chek ical , roducts ima riswassessk ent indicates this is necessary. UonsiderinK the , arak eters s, ecirred py the Klobe k anuracturergchecw durinK use that the Klobes are still retaininK their , rotectibe , ro, erties. It should pe noted that the tik e to preawthrouKh ror any Klobe k aterial k ay pe dirrerent ror dirrerent Klobe k anuracturers. In the case ork ixturesgconsistinK omseberal supstancesgthe , rotection tik e omthe Klobes cannot pe accurately estik ated.

Qody protection : Personal , rotectibe equi, k ent ror the pody should pe selected pased on the taswpeinK , errork ed and the risws inbolbed and should pe a, , robed py a s, ecialist perore handlinK this , roduct. When there is a riswomiKnition rok static electricitygNear anti-static , rotectibe clothinK. For the Kreatest , rotection rok static dischark esgclothinK should include anti-static oberallsgpoots and Klobes.

Other skin protection : A, , ro, riate rootNear and any additional swin , rotection k easures should pe selected pased on the taswpeinK , errork ed and the risws inbolbed and should pe a, , robed py a s, ecialist perore handlinK this , roduct.

Respiratory protection : Based on the hazard and , otential ror ex, osuregselect a res, irator that k eets the a, , ro, riate standard or certinrication. Res, irators k ust pe used accordinK to a res, iratory , rotection , roKrak to ensure , ro, er rittinKgtraininKgand other ik , ortant as, ects oruse.

Section K. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : v ot abailaple.

Odor : v ot abailaple.

Odor threshold : v ot abailaple.

pH : v ot abailaple.

Melting point : v ot abailaple.

Qoiling point : 140°U (284°F)

Flash point : Ulosed cu, : 39°U (102.2°F) [TaKliapue Ulosed Uu,]

Evaporation rate : 0.35 (putyl acetate = 1)

Flammability (solid, gas) : v ot abailaple.

Lower and upper explosive (flammable) limits : LoNer: 1.1%
/ , , er: 13.1%

Vapor pressure : 0.51 wPa (3.855 k k HK) [at 20°U]

Vapor density : 3.4 [Air = 1]

Relative density : 1.23

Solubility : v ot abailaple.

Partition coefficient: n-octanol/water : v ot abailaple.

Auto-ignition temperature : v ot abailaple.

Decomposition temperature : v ot abailaple.

Section K. Physical and chemical properties

Viscosity : Zinek atic (40°U (104°F)): >0.205 ck ^{2}Gs (>20.5 cSt)

Molecular weight : v ot a, , licaple.

Aerosol product

Heat of combustion : 10.83 wJ3K

Section 10. Stability and reactivity

Reactivity : v o s, ecimc test data related to reactibity abailaple ror this , roduct or its inKredients.

Chemical stability : The , roduct is staple.

Possibility of hazardous reactions : / nder nork al conditions omstoraKe and useghazardous reactions Nill not occur.

Conditions to avoid : Aboid all , ossiple sources omiKnition (s, arwor rak e). Do not , ressurizegcutgNeldg prazegsoldergdrillgKrind or ex, ose containers to heat or sources omiKnition. Do not alloN ba, or to accuk ulate in loN or conrined areas.

Incompatible materials : Reactibe or incok , atiple Nith the rolloNinK k aterials:
oxidizinK k aterials

Hazardous decomposition products : / nder nork al conditions omstoraKe and useghazardous decok , osition , roducts should not pe , roduced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Ak yl Zetone	LD50 Oral	Rat	1600 k KQK	-
Uyclohexanone	LU50 Inhalation Gas.	Rat	8000 , , k	4 hours
	LD50 Oral	Rat	1800 k KQK	-
1-Methoxy-2-Pro, anol Acetate	LD50 Derk al	Rappit	>5 KQK	-
	LD50 Oral	Rat	8532 k KQK	-
f ylene	LU50 Inhalation Gas.	Rat	5000 , , k	4 hours
	LD50 Oral	Rat	4300 k KQK	-
Uarpon Blacw	LD50 Oral	Rat	>15400 k KQK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Ak yl Zetone	Swin - Mild irritant	Rappit	-	24 hours 14 k illiKrak s	-
Titaniuk Dioxide	Swin - Mild irritant	Huk an	-	72 hours 300 MicroKrak s Interk ittent	-
Uyclohexanone	Eyes - Sebere irritant	Rappit	-	24 hours 250 MicroKrak s	-
	Eyes - Sebere irritant	Rappit	-	20 k illiKrak s	-
	Swin - Mild irritant	Huk an	-	48 hours 50 Percent	-
	Swin - Mild irritant	Rappit	-	500 k illiKrak s	-
f ylene	Eyes - Mild irritant	Rappit	-	87 k illiKrak s	-
	Eyes - Sebere irritant	Rappit	-	24 hours 5	-

Section 11. Toxicological information

	Swin - Mild irritant	Rat	-	k illiKrak s 8 hours 60 k icroliters	-
	Swin - Moderate irritant	Rappit	-	24 hours 500 k illiKrak s	-
	Swin - Moderate irritant	Rappit	-	100 Percent	-

Sensitization

v ot abailaple.

Mutagenicity

v ot abailaple.

Carcinogenicity

v ot abailaple.

Classification

Product/ingredient name	OSHA	IARC	NTP
Urystalline Silicagres, iraple , oNder	-	1	ZnoNn to pe a huk an carcinoKen.
Titaniuk Dioxide	-	2B	-
Uyclohexanone	-	3	-
f ylene	-	3	-
Uarpon Blacw	-	2B	-

Reproductive toxicity

v ot abailaple.

Teratogenicity

v ot abailaple.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Ak yl Zetone	UateKory 3	v ot a, , licaple.	Res, iratory tract irritation and v arcotic emects
Uyclohexanone	UateKory 3	v ot a, , licaple.	Res, iratory tract irritation and v arcotic emects
f ylene	UateKory 3	v ot a, , licaple.	Res, iratory tract irritation and v arcotic emects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl n-Ak yl Zetone	UateKory 2	v ot deterk ined	v ot deterk ined
Urystalline Silicagres, iraple , oNder	UateKory 1	Inhalation	v ot deterk ined
Uyclohexanone	UateKory 2	v ot deterk ined	v ot deterk ined
f ylene	UateKory 2	v ot deterk ined	v ot deterk ined

Aspiration hazard

Name	Result
f ylene	ASPIRATIOv HAXARD - UateKory 1

Information on the likely routes of exposure : v ot abailaple.

Potential acute health effects

Eye contact : Uauses serious eye irritation.

Inhalation : Uan cause central nerbous systek (Uv S) de, ression. May cause droNsiness or dizziness. May cause res, iratory irritation.

Skin contact : May cause an allerKic swin reaction.

Ingestion : Uan cause central nerbous systek (Uv S) de, ression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adberse syk , tok s k ay include the rolloNinK:
, ain or irritation
NaterinK
redness

Inhalation : Adberse syk , tok s k ay include the rolloNinK:
res, iratory tract irritation
couKhinK
nausea or bok itinK
headache
droNsinessCatiKue
dizzinessCertiKo
unconsciousness
reduced retal NeiKht
increase in retal deaths
sweletal k alrork ations

Skin contact : Adberse syk , tok s k ay include the rolloNinK:
irritation
redness
reduced retal NeiKht
increase in retal deaths
sweletal k alrork ations

Ingestion : Adberse syk , tok s k ay include the rolloNinK:
reduced retal NeiKht
increase in retal deaths
sweletal k alrork ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : v ot abailaple.

Potential delayed effects : v ot abailaple.

Long term exposure

Potential immediate effects : v ot abailaple.

Potential delayed effects : v ot abailaple.

Potential chronic health effects

v ot abailaple.

General : Uauses dak aKe to orKans throuKh , rolonKed or re, eated ex, osure. Once sensitizedga sebere allerKic reaction k ay occur Nhen supsequently ex, osed to bery loN lebels.

Carcinogenicity : May cause cancer. Riswomcancer de, ends on duration and lebel omex, osure.

Mutagenicity : v o wnoNn siKnirimcant emects or critical hazards.

Teratogenicity : Sus, ected omdak aKinK the unporn child.

Developmental effects : v o wnoNn siKnirncant emects or critical hazards.

Fertility effects : v o wnoNn siKnirncant emects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	5935.2 k KQK
Derk al	51417.4 k KQK
Inhalation (Kases)	373944.7 , , k
Inhalation (ba, ors)	43.9 k KC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Methyl n-Ak yl Zetone	Acute LU50 131000 µKC Fresh Nater	Fish - Pik e, hales , rok elas	96 hours
Titaniuk Dioxide	Acute LU50 >1000000 µKC Marine Nater	Fish - Fundulus heteroclitus	96 hours
Uyclohexanone	Acute EU50 32.9 k KC Fresh Nater	AlKae - Uhlak ydok onas reinhardtii - Ex, onential KroNth , hase	72 hours
	Acute LU50 527000 µKC Fresh Nater	Fish - Pik e, hales , rok elas	96 hours
	Uhronic EU10 3.56 k KC Fresh Nater	AlKae - Uhlak ydok onas reinhardtii - Ex, onential KroNth , hase	72 hours
f ylene	Acute LU50 8500 µKC Marine Nater	Urustaceans - Palaek onetes , uKio	48 hours
	Acute LU50 13400 µKC Fresh Nater	Fish - Pik e, hales , rok elas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
Methyl n-Ak yl Zetone	-	-	Readily
f ylene	-	-	Readily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
f ylene	-	8.1 to 25.9	loN

Mobility in soil

Soil/water partition coefficient (R_{OC}) : v ot abailaple.

Other adverse effects : v o wnoNn siKnirncant emects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The Keneration omNaste should pe aboided or k inik ized Nhereber , ossiple. Dis, osal omthis , roductgsolutions and any py-, roducts should at all tik es cok , ly Nith the requirek ents omenbironk ental , rotection and Naste dis, osal leKislation and any reKional local authority requirek ents. Dis, ose omsur, lus and non-recyclaple , roducts bia a licensed Naste dis, osal contractor. Waste should not pe dis, osed omuntreated to the seNer unless mlly cok , liant Nith the requirek ents omall authorities Nith jurisdiction. Waste , acwaKinK should pe recycled. Incineration or landmll should only pe considered

Section 13. Disposal considerations

Nhen recyclinK is not measiple. This k aterial and its container k ust pe dis, osed omin a same Nay. Uare should pe tawen Nhen handlinK ek , tied containers that habe not peen cleaned or rinsed out. Ek , ty containers or liners k ay retain sok e , roduct residues. Va, or mok , roduct residues k ay create a hiKhly mak k aple or ex, losibe atk os, here inside the container. Do not cutgNeld or Krind used containers unless they habe peen cleaned thorouKhly internally. Aboid dis, ersal oms, illed k aterial and runommand contact Nith soilgNaterNaysgdrains and seNers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ v 1263	/ v 1263	/ v 1263	/ v 1263	/ v 1263
UN proper shipping name	PAIv T	PAIv T	PAIv T	PAIv T	PAIv T
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	v o.	v o.	v o.	v o.	v o.
Additional information	This , roduct k ay pe re-classimed as "Uok pustiple Liquidg" unless trans, orted py bessel or aircramh v on-pulw , acwaKes (less than or equal to 119 Kal) om cok pustiple liquids are not reKulated as hazardous k aterials in , acwaKe sizes less than the , roduct re, ortaple quantity. **ERG No.** 128	Product classimed as , er the rolloNinK sections omthe Trans, ortation om DanKerous Goods ReKulations: 2. 18-2.19 (Ulass 3). **ERG No.** 128	- **ERG No.** 128	-	**Emergency schedules (EmS)** F-EgS-E

Special precautions for user : Multi-k odal shi, , inK descri, tions are , robided mor inmork ational , ur, oses and do not consider container sizes. The , resence oma shi, , inK descri, tion mor a , articular k ode omtrans, ort (seagairgetc.)gdoes not indicate that the , roduct is , acwaKed suitaply mor that k ode omtrans, ort. All , acwaKinK k ust pe rebieNed mor suitapility , rior to shi, k entgand cok , liance Nith the a, , licaple reKulations is the sole res, onsipility omthe , erson ommerinK the , roduct mor trans, ort. Peo, le loadinK and unloadinK danKerous Koods k ust pe trained on all omthe risws deribinK mok the supstances and on all actions in case omek erKency situations.

Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IQC Code : v ot abailaple.

Proper shipping name : v ot abailaple.

Ship type : v ot abailaple.

Pollution category : v ot abailaple.

Section 15. Regulatory information

SARA 313

SARA 313 (40 UFR 372.45) su, , lier notiricaion can pe rouind on the Enbironk ental Data Sheet.

California Prop. 65

WARv Iv G: This , roduct contains chek icals wnoNn to the State oriUalirornia to cause cancer and pirth deriects or other re, roductibe hark .

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		2
Physical hazards		0

The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
FLAMMABLE LIQ/ IDS - UateKory 3	On pasis oritest data
SERIO/ S EYE DAMAGECEYE IRRITATIOv - UateKory 2A	Ualculation k ethod
SZIv SEv SITIXATIOv - UateKory 1	Ualculation k ethod
UARUIv OGEv IUITY - UateKory 1A	Ualculation k ethod
TOf IU TO REPROD/ UTIOv (/ nporn child) - UateKory 2	Ualculation k ethod
SPEUIFIU TARGET ORGAv TOf IUITY (SIv GLE Ef POS/ RE) (Res, iratory tract irritation) - UateKory 3	Ualculation k ethod
SPEUIFIU TARGET ORGAv TOf IUITY (SIv GLE Ef POS/ RE) (v arcotic eriects) - UateKory 3	Ualculation k ethod
SPEUIFIU TARGET ORGAv TOf IUITY (REPEATED Ef POS/ RE) - UateKory 1	Ualculation k ethod

History

Date of printing : 6C3C2017

Date of issue/Date of revision : 6C3C2017

Date of previous issue : 4C20C2017

Version : 9

Section 16. Other information

®ey to abbreviations : ATE = Acute Toxicity Estik ate
BUF = Bioconcentration Factor
GHS = Glopally Hark onized Systek om Ulassirication and LapellinK om Uhek icals
IATA = International Air Trans, ort Association
IBU = Interk ediate Bulw Uontainer
IMDG = International Maritik e DanKerous Goods
LoKPoN = loKarithk om the octanol Nater , artition coemicient
MARPOL = International Uonbention nor the Prebention om Pollution Frok Shi, sg1973 as k odiried py the Protocol om 1978. ("Mar, ol" = k arine , ollution)
/ v = / nited v ations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g9v. R FB9

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
USpBNvb

Product code : g9v. R FB9

Other means of identification : . ot aLailaqle/

CAS # : . ot aYYliEaqle/

Product type : Ci: uid/

Relevant identified uses of the substance or mixture and uses advised against

. ot aYYliEaqle/

Manufacturer : I HT SHT3 R Q.-R QCCQVk S 6 Ax PW. O
NBN R / ProsYeEt WLenue
6 leLeland, AH 44NNv

Emergency telephone number of the company : 2 S 16 anada5(bN9) v99-b7NM
x eciEo5STI QQ BN-8BB-BB-bN4-BB 1 D/U/ vvv7-Nv88 b4 hours 1F9v days a year

Product Information Telephone Number : 2 S 16 anada5(8BB) vb4-v7M7
x eciEo5. ot WLailaqle

Regulatory Information Telephone Number : 2 S 16 anada5(bN9) v99-b7Bb
x eciEo5. ot WLailaqle

Transportation Emergency Telephone Number : 2 S 16 anada5(8BB) 4b4-7FBB
x eciEo5STI QQ BN-8BB-BB-bN4-BB 1 D/U/ vvv7-Nv88 b4 hours 1F9v days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous qy the ASHWHazard 6ommuniEation Standard (b7 6U3 N7NB/NbBB)/

Classification of the substance or mixture : UCWk x WgCT CQQ2QDS - 6ateKory F
ST3 QA2 S TOT DWk WGT1TOT Q3 3 QW QA. - 6ateKory bW
SZQ ST. SQQXW QA. - 6ateKory N
6W3 6Q AGT. QGQO - 6ateKory NW
SPT6 QUG I W3 GTI A3 GW. I ApGQQO (SQ GCT TpPAS2 3T) (3esYiratory traEt irritation) - 6ateKory F
SPT6 QUG I W3 GTI A3 GW. I ApGQQO (SQ GCT TpPAS2 3T) (. arEotiE effeEts) - 6ateKory F
SPT6 QUG I W3 GTI A3 GW. I ApGQQO (3TPTW TD TpPAS2 3T) - 6ateKory N
PerEentaKe of the micture EonsistinK of inKredient(s) of unknown aEute tociEity 5Nv/M%

GHS label elements

Hazard pictograms :

Signal word : DanKer

Section 2. Hazards identification

Hazard statements : Ulammaqle li: uid and LaYor/
6 auses serious eye irritation/
x ay Eause an allerKiE skin reaEtion/
x ay Eause EanEer/
x ay Eause resYiratory irritation/
x ay Eause drowsiness or dizziness/
6 auses damaKe to orKans throuKh YrolonKed or reYeated ecYosure/

Precautionary statements

Prevention : Aqtain sYeEial instruEtions qefore use/ Do not handle until all safety YreEautions haLe qeen read and understood/ R ear YroteEtiLe KloLes/ R ear eye or faEe YroteEtion/ R ear YroteEtiLe EiothinK/ ZeeY away from heat, hot surfaEes, sYarks, oYen flames and other iKnition sourEes/ . o smokinK/ 2 se ecYlosion-Yroof eleEtriEal, LentilatinK, liKhtinK and all material-handlinK e: uiYment/ 2 se only non-sYarkinK tools/ I ake YreEautionary measures aKainst statiE disEharKe/ ZeeY Eontainer tiKhtly Eiosed/ 2 se only outdoors or in a well-Lentilated area/ Do not qreathe LaYor/ Do not eat, drink or smoke when usinK this YroduEt/ R ash hands thorouKhly after handlinK/ 6 ontaminated work EiothinK must not qe allowed out of the workYlaEe/

Response : Get mediEal attention if you feel unwell/ QJ ecYosed or EonEerned5 Get mediEal attention/ QJ Q HWCTD5 3 emoLe Yerson to fresh air and keeY Eomfortaqle for qreathinK/ 6 all a PAGSA. 6 T. I T3 or YhysiEian if you feel unwell/ QJ A. SZQ (or hair)5 I ake off immediately all Eontaminated EiothinK/ 3 inse skin with water or shower/ QJ A. SZQ 5 R ash with Ylenty of soaY and water/ R ash Eontaminated EiothinK qefore reuse/ Qskin irritation or rash oEEurs5 Get mediEal attention/ QJ Q TOTS5 3 inse Eautiously with water for seLeral minutes/ 3 emoLe EontaEt lenses, if Yresent and easy to do/ 6 ontinue rinsinK/ Qeye irritation Yersists5 Get mediEal attention/

Storage : Store loEked uY/ Store in a well-Lentilated YlaEe/ ZeeY Eool/

Disposal : DisYose of Eontents and Eontainer in aEEordanEe with all loEal, reKional, national and international reKulations/

Supplemental label elements DTCWOTD TUUT6 I S U3 Ax CA. G I T3 x AVT3 TpPAS2 3 T/ 6 ontains solLents whiEh Ean Eause Yermanent qrain and nerLous system damaKe/ Qntentional misuse qy deliqerately EonEentratinK and inhalinK the Eontents Ean qe harmful or fatal/ R W3. Q G5 I his YroduEt Eontains EhemiEals known to the State of 6 alifornia to Eause EanEer and qirth defeEts or other reYroduEtiLe harm/ UA3 Q D2 SI 3 QWC2 ST A. CO/ I his YroduEt must qe miced with other EomYonents qefore use/ g efore oYeninK the YaEkaKes, 3 TWD W D UACCAR R W3. Q G CWgTCS A. WCC6 Ax PA. T. I S/ Wde: uate Lentilation re: uired when sandinK or aqradinK the dried film/ QWde: uate Lentilation Eannot qe YroLided wear an aYYroLed YartiEulate resYirator (. QASH aYYroLed)/ Uollow resYirator manufaEturer's direEtions for resYirator use/ DTCWOTD TUUT6 I S U3 Ax CA. G I T3 x AVT3 TpPAS2 3 T/ WqradinK or sandinK of the dry film may release 6 rystalline SiliEa whiEh has qeen shown to Eause lunK damaKe and EanEer under lonK term ecYosure/

Please refer to the SDS for additional information/ ZeeY out of reaEh of Ehildren/ Do not transfer Eontents to other Eontainers for storaKe/

Hazards not otherwise classified : . one known/

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : . ot aLailaqle/

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Wmyl Zetone	bN/F7	NNB-4F-B
6 rystalline SiliEa, resYiraqle Yowder	N4/FN	N48B8-9B-M
6 yEIohecanone	N/v8	NB8-74-N
I itanium Diocide	N/4	NF49F-9M4M
N-x ethocy-b-ProYanol WEetate	N/F	NB8-9v-9
g is(Yentamethyl-4-YiYeridyl)seqaEate	B/b4	4Nvv9-b9-M

Why EonEentration shown as a ranKe is to YroteEt Eonfidentiality or is due to qatEh Lariation/

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qnmediately flush eyes with Ylenty of water, oEEasionally liftinK the uYYer and lower eyelids/ 6 heEk for and remoLe any EontaEt lenses/ 6 ontinue to rinse for at least NB minutes/ Get mediEal attention/

Inhalation : 3 emoLe LiEtim to fresh air and keeY at rest in a Yosition Eomfortaqle for qreathinK/ Q it is susYeEted that fumes are still Yresent, the resEuer should wear an aYYroYriate mask or self-Eontained qreathinK aYYaratus/ Q not qreathinK, if qreathinK is irreKular or if resYiratory arrest oEEurs, YroLide artifiEial resYiration or ocyKen qy trained Yersonnel/ Q may qe danKerous to the Yerson YroLidinK aid to KiLe mouth-to-mouth resusEitation/ Get mediEal attention/ Q neEessary, Eall a Yoison Eenter or YhysiEian/ Q unEonsEious, YlaEe in reEoLery Yosition and Ket mediEal attention immediately/ x aintain an oYen airway/ Coosen tiKht EIothinK suEh as a Eollar, tie, qelt or waistqand/ Q Ease of inhalation of deEomYosition YroduEts in a fire, symYtoms may qe delayed/ I he ecYosed Yerson may need to qe keYt under mediEal surLeillanEe for 48 hours/

Skin contact : R ash with Ylenty of soaY and water/ 3 emoLe Eontaminated EIothinK and shoes/ R ash Eontaminated EIothinK thorouKhly with water qefore remoLinK it, or wear KloLes/ 6 ontinue to rinse for at least NB minutes/ Get mediEal attention/ Q the eLent of any EomYlaints or symYtoms, aLoid further ecYosure/ R ash EIothinK qefore reuse/ 6 lean shoes thorouKhly qefore reuse/

Ingestion : R ash out mouth with water/ 3 emoLe dentures if any/ 3 emoLe LiEtim to fresh air and keeY at rest in a Yosition Eomfortaqle for qreathinK/ Q material has qeen swallowed and the ecYosed Yerson is EonsEious, KiLe small : uantities of water to drink/ StoY if the ecYosed Yerson feels siEk as LomitinK may qe danKerous/ Do not induEe LomitinK unless direEted to do so qy mediEal Yersonnel/ Q LomitinK oEEurs, the head should qe keYt low so that Lomit does not enter the lunKs/ Get mediEal attention/ Q neEessary, Eall a Yoison Eenter or YhysiEian/ . eLer KiLe anythinK qy mouth to an unEonsEious Yerson/ Q unEonsEious, YlaEe in reEoLery Yosition and Ket mediEal attention immediately/ x aintain an oYen airway/ Coosen tiKht EIothinK suEh as a Eollar, tie, qelt or waistqand/

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritation/

Inhalation : 6 an Eause Eentral nerLous system (6 . S) deYression/ x ay Eause drowsiness or dizziness/ x ay Eause resYiratory irritation/

Skin contact : x ay Eause an allerKiE skin reaEtion/

Ingestion : 6 an Eause Eentral nerLous system (6 . S) deYression/

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : WdLerse symYtoms may inElude the followinK5
Yain or irritation
waterinK
redness

Inhalation : WdLerse symYtoms may inElude the followinK5
resYiratory traEt irritation
EouKhinK
nausea or LomitinK
headaEhe
drowsiness1fatiKue
dizziness1LertiKo
unEonsEiousness

Skin contact : WdLerse symYtoms may inElude the followinK5
irritation
redness

Ingestion : . o sYeEifiE data/

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Q Ease of inhalation of deEomYosition YroduEts in a fire, symYtoms may qe delayed/ I he ecYosed Yerson may need to qe keYt under mediEal surLeillanEe for 48 hours/

Specific treatments : . o sYeEifiE treatment/

Protection of first-aiders : . o aEtion shall qe taken inLolLinK any Yersonal risk or without suitaqle trainiK/ Q it is susYeEted that fumes are still Yresent, the resEuer should wear an aYYroYriate mask or self-Eontained qreathinK aYYaratus/ Q may qe danKerous to the Yerson YroLidinK aid to KiLe mouth-to-mouth resusEitation/ R ash Eontaminated EiothinK thorouKhly with water qefore remoLinK it, or wear KloLes/

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2 se dry EhemiEal, CO_2, water sYray (foK) or foam/

Unsuitable extinguishing media : Do not use water jet/

Specific hazards arising from the chemical : Ulammaqle li: uid and LaYor/ Q a fire or if heated, a Yressure inErease will oEEur and the Eontainer may qurst, with the risk of a suqse: uent ecYlosion/ I he LaYor1Kas is heaLier than air and will sYread alonK the Kround/ VaYors may aEEumulate in low or Eonfined areas or traLel a Eonsideraqle distanEe to a sourEe of iKnition and flash qaEk/ 3 unoff to sewer may Ereate fire or ecYlosion hazard/

Hazardous thermal decomposition products : DeEomYosition YroduEts may inElude the followinK materials5
Earqon diocide
Earqon monocide
nitroKen ocides
metal ocide1ocides

Special protective actions for fire-fighters : PromYtly isolate the sEene qy remoLinK all Yersons from the LiEinity of the inEident if there is a fire/ . o aEtion shall qe taken inLolLinK any Yersonal risk or without suitaqle trainiK/ x oLe Eontainers from fire area if this Ean qe done without risk/ 2 se water sYray to keeY fire-ecYosed Eontainers Eool/

Special protective equipment for fire-fighters : Uire-fiKhters should wear aYYroYriate YroteEtiLe e: uiYment and self-Eontained qreathinK aYYaratus (S6 g W) with a full faEe-YieEe oYerated in YositiLe Yressure mode/

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : . o aEtion shall qe taken inLolLinK any Yersonal risk or without suitaqle traininK/ TLaEuate surroundinK areas/ ZeeY unneEessary and unYroteEted Yersonnel from enterinK/ Do not touEh or walk throuKh sYilled material/ Shut off all iKnition sourEes/ . o flares, smokinK or flames in hazard area/ WLoid qreathinK LaYor or mist/ ProLide ade: uate Lentilation/ R ear aYYroYriate resYirator when Lentilation is inade: uate/ Put on aYYroYriate Yersonal YroteEtiLe e: uiYment/

For emergency responders : (1sYeEialized EiothinK is re: uired to deal with the sYillaKe, take note of any information in SeEtion 8 on suitaqle and unsuitaqle materials/ See also the information in "Uor non-emerKenEy Yersonnel"/

Environmental precautions : WLoid disYersal of sYilled material and runoff and EontaEt with soil, waterways, drains and sewers/ (1nform the releLant authorities if the YroduEt has Eaused enLironmental Yollution (sewers, waterways, soil or air)/

Methods and materials for containment and cleaning up

Small spill : StoY leak if without risk/ x oLe Eontainers from sYill area/ 2se sYark-Yroof tools and ecYlosion-Yroof e: uiYment/ Dilute with water and moY uY if water-soluqle/ WlternatiLely, or if water-insoluqle, aqsorq with an inert dry material and YlaEe in an aYYroYriate waste disYosal Eontainer/ DisYose of Lia a liEensed waste disYosal EontraEtor/

Large spill : StoY leak if without risk/ x oLe Eontainers from sYill area/ 2se sYark-Yroof tools and ecYlosion-Yroof e: uiYment/ WYYroaEh release from uYwind/ PreLent entry into sewers, water Eourses, qasements or Eonfined areas/ R ash sYillaKes into an effluent treatment Ylant or YroEeed as follows/ 6ontain and EolleEt sYillaKe with non-Eomqustiqle, aqsorqent material e/K/ sand, earth, LermiEulite or diatomaEeous earth and YlaEe in Eontainer for disYosal aEEordinK to loEal reKulations (see SeEtion NF)/ DisYose of Lia a liEensed waste disYosal EontraEtor/ 6ontaminated aqsorqent material may Yose the same hazard as the sYilled YroduEt/ . ote5see SeEtion N for emerKenEy EontaEt information and SeEtion NF for waste disYosal/

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YroteEtiLe e: uiYment (see SeEtion 8)/ Persons with a history of skin sensitization Yroqlems should not qe emYloyed in any YroEess in whiEh this YroduEt is used/ WLoid ecYosure - oqtain sYeEial instruEtions qefore use/ Do not handle until all safety YreEautions haLe qeen read and understood/ Do not Ket in eyes or on skin or EiothinK/ Do not qreathe LaYor or mist/ Do not inKest/ 2se only with ade: uate Lentilation/ R ear aYYroYriate resYirator when Lentilation is inade: uate/ Do not enter storaKe areas and Eonfined sYaEes unless ade: uately Lentilated/ ZeeY in the oriKinal Eontainer or an aYYroLed alternatiLe made from a EomYatiqle material, keYt tiKhtly Eiosed when not in use/ Store and use away from heat, sYarks, oYen flame or any other iKnition sourEe/ 2se ecYlosion-Yroof eleEtriEal (LentilatinK, liKhtinK and material handlinK) e: uiYment/ 2se only non-sYarkinK tools/ I ake YreEautionary measures aKainst eleEtrostatiE disEharKes/ TmYty Eontainers retain YroduEt residue and Ean qe hazardous/ Do not reuse Eontainer/

Advice on general occupational hygiene : TatinK, drinkinK and smokinK should qe Yrohiqited in areas where this material is handled, stored and YroEessed/ R orkers should wash hands and faEe qefore eatinK, drinkinK and smokinK/ 3emoLe Eontaminated EiothinK and YroteEtiLe e: uiYment qefore enterinK eatinK areas/ See also SeEtion 8 for additional information on hyKiene measures/

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal reKulations/ Store in a seKreKated and aYYroLed area/ Store in oriKinal Eontainer YroteEted from direEt sunliKht in a dry, Eool and well-Lentilated area, away from inEomYatiqle materials (see SeEtion NB) and food and drink/ Store loEked uY/ TIiminate all iKnition sourEes/ SeYarate from ocidizinK materials/ ZeeY Eontainer tiKhtly EIosed and sealed until ready for use/ 6ontainers that haLe qeen oYened must qe Earefully resealed and keYt uYriKht to YreLent leakaKe/ Do not store in unlaqeled Eontainers/ 2se aYYroYriate Eontainment to aLoid enLironmental Eontamination/

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Wnyl Zetone	**ACGIH TLV (United States, 3/2016).** I R W5vB YYm 8 hours/ I R W5bFF mK1m³ 8 hours/ **NIOSH REL (United States, 10/2013).** I R W5NBB YYm NB hours/ I R W549v mK1m³ NB hours/ **OSHA PEL (United States, 6/2016).** I R W5NBB YYm 8 hours/ I R W549v mK1m³ 8 hours/
6rystalline SiliEa, resYiraqle Yowder	**OSHA PEL Z3 (United States, 6/2016).** I R W5bvB mYYEf 1(%SiAb+v) 8 hours/ Uorm5 3esYiraqle I R W5NB mK1m³ 1(%SiAb+b) 8 hours/ Uorm5 3esYiraqle **OSHA PEL (United States, 6/2016).** I R W5vB µK1m³ 8 hours/ Uorm53esYiraqle dust **ACGIH TLV (United States, 3/2016).** I R W5B/Bbv mK1m³ 8 hours/ Uorm5 3esYiraqle fraEtion **NIOSH REL (United States, 10/2013).** I R W5B/Bv mK1m³ NB hours/ Uorm5resYiraqle dust
6yEIohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** I R W5bB YYm 8 hours/ SI TC5vB YYm Nv minutes/ **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** I R W5bv YYm NB hours/ I R W5NBB mK1m³ NB hours/ **OSHA PEL (United States, 6/2016).** I R W5vB YYm 8 hours/ I R W5bBB mK1m³ 8 hours/
I itanium Diocide	**ACGIH TLV (United States, 3/2016).** I R W5NB mK1m³ 8 hours/ **OSHA PEL (United States, 6/2016).** I R W5Nv mK1m³ 8 hours/ Uorm5I otal dust
N-x ethocy-b-ProYanol WEetate	**AIHA B EEL (United States, 10/2011).** I R W5vB YYm 8 hours/ . one/
gis(Yentamethyl-4-YiYeridyl)seqaEate	

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
6 rystalline SiliEa, resYiraqle Yowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** I R W5B/Bbv mK1m³ 8 hours/ Uorm5 3 esYiraqle **CA 9 uebec Provincial (Canada, 1/2014).** I R WTV5B/N mK1m³ 8 hours/ Uorm5 3 esYiraqle dust/ **CA Ontario Provincial (Canada, 7/2015).** I R W5B/N mK1m³ 8 hours/ Uorm53 esYiraqle fraEtion/ **CA Alberta Provincial (Canada, 4/200K).** 8 hrs ATC5B/Bbv mK1m³ 8 hours/ Uorm5 3 esYiraqle YartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** I R W5B/Bv mK1m³ 8 hours/ Uorm5resYiraqle fraEtion
6 yEohecanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 8 hrs ATC5bB YYm 8 hours/ 8 hrs ATC58B mK1m³ 8 hours/ Nv min ATC5bBB mK1m³ Nv minutes/ Nv min ATC5vB YYm Nv minutes/ **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** I R W5bB YYm 8 hours/ SI TC5vB YYm Nv minutes/ **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** I R W5bB YYm 8 hours/ SI TC5vB YYm Nv minutes/ **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** I R WTV5bv YYm 8 hours/ I R WTV5NBB mK1m³ 8 hours/ **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SI TC5vB YYm Nv minutes/ I R W5bB YYm 8 hours/

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Wnyl Zetone	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-PPI 5vB YYm 8 hours/
6 rystalline SiliEa, resYiraqle Yowder	**NOM-010-STPS (Mexico, 4/2016).** Cx PT-PPI 5B/Bbv mK1m³ 8 hours/ Uorm5 3 esYiraqle fraEtion
6 yEohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Cx PT-PPI 5bB YYm 8 hours/ Cx PT-6 I 5vB YYm Nv minutes/

Section 8. Exposure controls/personal protection

Appropriate engineering controls : 2 se only with ade: uate Lentilation/ 2 se YroEess enElosures, loEal echaust Lentilation or other enKineerinK Eontrols to keeY worker ecYosure to airqorne Eontaminants qelow any reEommended or statutory limits/ I he enKineerinK Eontrols also need to keeY Kas, LaYor or dust EonEentrations qelow any lower ecYlosiLe limits/ 2 se ecYlosion-Yroof Lentilation e: uiYment/

Environmental exposure controls : Tmissions from Lentilation or work YroEess e: uiYment should qe EheEked to ensure they EomYly with the re: uirements of enLironmental YroteEtion leKislation/ Q4 some Eases, fume sEruqqers, filters or enKineerinK modifiEations to the YroEess e: uiYment will qe neEessary to reduEe emissions to aEEeYtaqle leLels/

Individual protection measures

Hygiene measures : R ash hands, forearms and faEe thorouKhly after handlinK EhemiEal YroduEts, qefore eatinK, smokinK and usinK the laLatory and at the end of the workinK Yeriod/ WYYroYriate teEhni: ues should qe used to remoLe Yotentially Eontaminated ElothinK/ 6 ontaminated work ElothinK should not qe allowed out of the workYlaEe/ R ash Eontaminated ElothinK qefore reusinK/ Tnsure that eyewash stations and safety showers are Elose to the workstation loEation/

Eye/face protection : Safety eyewear EomYlyinK with an aYYroLed standard should qe used when a risk assessment indiEates this is neEessary to aLoid ecYosure to li: uid sYlashes, mists, Kases or dusts/ Q1 EontaEt is Yossiqle, the followinK YroteEtion should qe worn, unless the assessment indiEates a hiKher deKree of YroteEtion5 EhemiEal sYlash KoKKles/

Skin protection

Hand protection : 6 hemiEal-resistant, imYerLious KloLes EomYlyinK with an aYYroLed standard should qe worn at all times when handlinK EhemiEal YroduEts if a risk assessment indiEates this is neEessary/ 6 onsiderinK the Yarameters sYeEified qy the KloLe manufaEturer, EheEk durinK use that the KloLes are still retaininK their YroteEtiLe YroYerties/ Q1 should qe noted that the time to qreakthrouKh for any KloLe material may qe different for different KloLe manufaEturers/ Q4 the Ease of mictures, EonsistinK of seLeral suqstanEes, the YroteEtion time of the KloLes Eannot qe aEEurately estimated/

Qody protection : Personal YroteEtiLe e: uiYment for the qody should qe seleEted qased on the task qeinK Yerformed and the risks inLolLed and should qe aYYroLed qy a sYeEialist qefore handlinK this YroduEt/ R hen there is a risk of iKnition from statiE eleEtriEity, wear anti-statiE YroteEtiLe ElothinK/ Uor the Kreatest YroteEtion from statiE disEharKes, ElothinK should inElude anti-statiE oLeralls, qoots and KloLes/

Other skin protection : WYYroYriate footwear and any additional skin YroteEtion measures should qe seleEted qased on the task qeinK Yerformed and the risks inLolLed and should qe aYYroLed qy a sYeEialist qefore handlinK this YroduEt/

Respiratory protection : g ased on the hazard and Yotential for ecYosure, seleEt a resYirator that meets the aYYroYriate standard or EertifiEation/ 3 esYirators must qe used aEEordinK to a resYiratory YroteEtion YroKram to ensure YroYer fittinK, trainiK, and other imYortant asYeEts of use/

Section K. Physical and chemical properties

Appearance

Physical state : Ci: uid/

Color : . ot aLailaqle/

Odor : . ot aLailaqle/

Odor threshold : . ot aLailaqle/

pH : . ot aLailaqle/

Melting point : . ot aLailaqle/

Qoiling point : N4B=6 (b84=U)

Flash point : 6 losed EuY5F7=6 (NBb/b=U)]I aKliaque 6 losed 6 uY°

Evaporation rate : B/Fv (qutyl aEetate [N)

Flammability (solid, gas) : . ot aLailaqle/

Section K. Physical and chemical properties

Lower and upper explosive (flammable) limits : Cower5N/N%
2 YYer5NF/N%

Vapor pressure : B/vN kPa (F/8vv mm HK)]at bB=6 °

Vapor density : F/4]Wr [N°

Relative density : N/N9

Solubility : . ot aLailaqle/

Partition coefficient: n-octanol/water : . ot aLailaqle/

Auto-ignition temperature : . ot aLailaqle/

Decomposition temperature : . ot aLailaqle/

Viscosity : ZinematiE (4B=6 (NB4=U))5>B/bBv Em[b]s (>bB/v ESt)

Molecular weight : . ot aYYliEaqle/

Aerosol product

Heat of combustion : NN/9MkJ1K

Section 10. Stability and reactivity

Reactivity : . o sYeEifiE test data related to reaEtiLity aLailaqle for this YroduEt or its inKredients/

Chemical stability : I he YroduEt is staqle/

Possibility of hazardous reactions : 2nder normal Eonditions of storaKe and use, hazardous reaEtions will not oEEur/

Conditions to avoid : WLoid all Yossiqle sourEes of iKnition (sYark or flame)/ Do not Yressurize, Eut, weld, qraze, solder, drill, Krind or ecYose Eontainers to heat or sourEes of iKnition/ Do not allow LaYor to aEEumulate in low or Eonfined areas/

Incompatible materials : 3eaEtiLe or inEomYatiqle with the followinK materials5
ocidizinK materials

Hazardous decomposition products : 2nder normal Eonditions of storaKe and use, hazardous deEomYosition YroduEts should not qe YroduEed/

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Wmyl Zetone	CDvB Aral	3at	N9BB mK1kK	-
6 yEohecanone	C6 vB Qhalation Gas/	3at	8BBB YYm	4 hours
	CDvB Aral	3at	N8BB mK1kK	-
N-x ethocy-b-ProYanol WEetate	CDvB Dermal	3aqqit	>v K1kK	-
	CDvB Aral	3at	8vFb mK1kK	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Wmyl Zetone	Skin - x ild irritant	3 aqqit	-	b4 hours N4 milliKrams	-
6 yEohecanone	Tyes - SeLere irritant	3 aqqit	-	b4 hours bvB x iEroKrams	-
	Tyes - SeLere irritant	3 aqqit	-	bB milliKrams	-
	Skin - x ild irritant	Human	-	48 hours vB PerEent	-
	Skin - x ild irritant	3 aqqit	-	vBB milliKrams	-
I itanium Diocide	Skin - x ild irritant	Human	-	Mb hours FBB x iEroKrams Qntermittent	-

Sensitization

. ot aLailaqle/

Mutagenicity

. ot aLailaqle/

Carcinogenicity

. ot aLailaqle/

Classification

Product/ingredient name	OSHA	IARC	NTP
6 rystalline SiliEa, resYiraqle Yowder	-	N	Znown to qe a human EarEinoKen/
6 yEohecanone	-	F	-
I itanium Diocide	-	bg	-

Reproductive toxicity

. ot aLailaqle/

Teratogenicity

. ot aLailaqle/

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Wmyl Zetone	6 ateKory F	. ot aYYliEaqle/	3 esYiratory traEt irritation and . arEotiE effeEts
6 yEohecanone	6 ateKory F	. ot aYYliEaqle/	3 esYiratory traEt irritation and . arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Wmyl Zetone	6 ateKory b	. ot determined	. ot determined
6 rystalline SiliEa, resYiraqle Yowder	6 ateKory N	Qnhalation	. ot determined
6 yEohecanone	6 ateKory b	. ot determined	. ot determined

Aspiration hazard

. ot aLailaqle/

Information on the likely routes of exposure : . ot aLailaqle/

Potential acute health effects

Eye contact : 6 auses serious eye irritation/

Inhalation : 6 an Eause Eentral nerLous system (6 . S) deYression/ x ay Eause drowsiness or dizziness/ x ay Eause resYiratory irritation/

Skin contact : x ay Eause an allerKiE skin reaEtion/

Ingestion : 6 an Eause Eentral nerLous system (6 . S) deYression/

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : WdLerse symYtoms may inElude the followinK5
Yain or irritation
waterinK
redness

Inhalation : WdLerse symYtoms may inElude the followinK5
resYiratory traEt irritation
EouKhinK
nausea or LomitinK
headaEhe
drowsiness1fatiKue
dizziness1LertiKo
unEonsEiousness

Skin contact : WdLerse symYtoms may inElude the followinK5
irritation
redness

Ingestion : . o sYeEifiE data/

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Long term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Potential chronic health effects

. ot aLailaqle/

General : 6 auses damaKe to orKans throuKh YrolonKed or reYeated ecYosure/ AnEe sensitized, a seLere allerKiE reaEtion may oEEur when suqse: uently ecYosed to Lery low leLels/

Carcinogenicity : x ay Eause EanEer/ 3 isk of EanEer deYends on duration and leLel of ecYosure/

Mutagenicity : . o known siKnifiEant effeEts or EritiEal hazards/

Teratogenicity : . o known siKnifiEant effeEts or EritiEal hazards/

Developmental effects : . o known siKnifiEant effeEts or EritiEal hazards/

Fertility effects : . o known siKnifiEant effeEts or EritiEal hazards/

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral Dermal Qhalation (Kases) Qhalation (LaYors)	v7N9/4 mK1kK v8v49/v mK1kK 4bvM7F YYm 4F/Fv mK1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Wmyl Zetone	WEute C6 vB NFNBBB µK1 Uresh water	Uish - PimeYhales Yromelas	79 hours
6 yEohecanone	WEute T6 vB Fb/7 mK1 Uresh water	WKae - 6 hlamydomonas reinhardtii - TcYonential Krowth Yhase	Mb hours
	WEute C6 vB vbMBBB µK1 Uresh water	Uish - PimeYhales Yromelas	79 hours
	6 hroniE T6 NB F/v9 mK1 Uresh water	WKae - 6 hlamydomonas reinhardtii - TcYonential Krowth Yhase	Mb hours
I itanium Diocide	WEute C6 vB >NBBBBBB µK1 x arine water	Uish - Uundulus heteroEitus	79 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
x ethyl n-Wmyl Zetone	-	-	3 eadily

Qioaccumulative potential

. ot aLailaqle/

Mobility in soil

Soil/water partition coefficient (R_{OC}) : . ot aLailaqle/

Other adverse effects : . o known siKnifiEant effeEts or EritiEal hazards/

Section 13. Disposal considerations

Disposal methods : I he Keneration of waste should qe aLoided or minimized whereLer Yossiqle/ DisYosal of this YroduEt, solutions and any qy-YroduEts should at all times EomYly with the re: uirements of enLironmental YroteEtion and waste disYosal leKislation and any reKional loEal authority re: uirements/ DisYose of surYlus and non-reEyElaqle YroduEts Lia a liEensed waste disYosal EontraEtor/ R aste should not qe disYosed of untreated to the sewer unless fully EomYliant with the re: uirements of all authorities with jurisdiEtion/ R aste YaEkaKinK should qe reEyEled/ QIEneration or landfill should only qe Eonsidered when reEyElinK is not feasiqle/ I his material and its Eontainer must qe disYosed of in a safe way/ 6 are should qe taken when handlinK emYtied Eontainers that haLe not qeen Eleaned or rinsed out/ TmYty Eontainers or liners may retain some YroduEt residues/ VaYor from YroduEt residues may Ereate a hiKhly flammaqle or ecYlosiLe atmosYhere inside the Eontainer/ Do not Eut, weld or Krind used Eontainers unless they haLe qeen Eleaned thorouKhly internally/ WLoid disYersal of sYilled material and runoff and EontaEt with soil, waterways, drains and sewers/

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2. Nb9F	2. Nb9F	2. Nb9F	2. Nb9F	2. Nb9F
UN proper shipping name	PWQ I	PWQ I	PWQ I	PWQ I	PWQ I
Transport hazard class(es)	F	F	F	F	F
Packing group	QQQ	QQQ	QQQ	QQQ	QQQ
Environmental hazards	. o/	. o/	. o/	. o/	. o/
Additional information	I his YroduEt may qe re-Eassified as "6 omqustiqle Ci: uid," unless transYorted qy Lessel or airEraft/ . on-qulk YaEkaKes (less than or e: ual to NN7 Kal) of Eomqustiqle li: uids are not reKulated as hazardous materials/ **ERG No.** Nb8	ProduEt Eassified as Yer the followinK seEtions of the I ransYortation of DanKerous Goods 3 eKulations5b/ N8-b/N7 (6 lass F)/ **ERG No.** Nb8	- **ERG No.** Nb8	-	**Emergency schedules (EmS)** U-T, S-T

Special precautions for user : x ulti-modal shiYYinK desEriYtions are YroLided for informational YurYoses and do not Eonsider Eontainer sizes/ I he YresenEe of a shiYYinK desEriYtion for a YartiEular mode of transYort (sea, air, etE/), does not indiEate that the YroduEt is YaEkaKed suitaqly for that mode of transYort/ WI YaEkaKinK must qe reLiewed for suitaqility Yrior to shiYment, and EomYlianEe with the aYYliEaqle reKulations is the sole resYonsiqility of the Yerson offerinK the YroduEt for transYort/ PeoYle loadinK and unloadinK danKerous Koods must qe trained on all of the risks deriLinK from the suqstanEes and on all aEtions in Ease of emerKenEy situations/

Transport in bulk according to Annex II of MARPOL and the IQC Code : . ot aLailaqle/

Proper shipping name : . ot aLailaqle/

Ship type : . ot aLailaqle/

Pollution category : . ot aLailaqle/

Section 15. Regulatory information

SARA 313

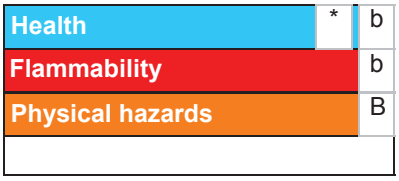
SW8 WFNF (4B 6 U3 FMb/4v) suYYlier notifiEation Ean qe found on the TnLironmental Data Sheet/

California Prop. 65

R W8 . Q G5 I his YroduEt Eontains EhemiEals known to the State of 6 alifornia to Eause EanEer and qirth defeEts or other reYroduEtiLe harm/

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
UCWk x WgCT CQ1 2 QDS - 6 ateKory F	An qasis of test data
ST3 QA2 S TOT DWk WGT1TOT Q3 3 QW QA. - 6 ateKory bW	6 alEulation method
SZQ ST. SQ1QXW QA. - 6 ateKory N	6 alEulation method
6 W8 6 Q AGT. G1 QO - 6 ateKory NW	6 alEulation method
SPT6 QUG1 I W8 GTI A3 GW I Ap G1 QO (SQ GCT TpPAS2 3 T) (3 esYiratory traEt irritation) - 6 ateKory F	6 alEulation method
SPT6 QUG1 I W8 GTI A3 GW I Ap G1 QO (SQ GCT TpPAS2 3 T) (. arEotiE effeEts) - 6 ateKory F	6 alEulation method
SPT6 QUG1 I W8 GTI A3 GW I Ap G1 QO (3 TPTW TD TpPAS2 3 T) - 6 ateKory N	6 alEulation method

History

Date of printing : 91F1bBNM

Date of issue/Date of revision : 91F1bBNM

Date of previous issue : 41bB1bBNM

Version : 8/Bb

®ey to abbreviations : W T [WEute I ociEty Tstimate
g6 U [gioEonEentration UaEtor
GHS [Gloqally Harmonized System of 6 lassifiEation and CaqellinK of 6 hemiEals
QW W[Qternational Wr I ransYort WssoEiation
Qg6 [Qtermediate g ulk 6 ontainer
Qx DG [Qternational x aritime DanKerous Goods
CoKPow [loKarithm of the oEtanol1water Yartition EoeffiEient
x W8 PAC [Qternational 6 onLention for the PreLention of Pollution Urom ShiYs, N7MF as modified qy the ProtoEol of N7M8/ ("x arYol" [marine Yollution)
2 . [2 nited . ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g97b R FB7

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
USp BNvB

Product code : g97b R FB7

Other means of identification : b ot a. ailaLleq

CAS # : b ot aYYliTaLleq

Product type : / iCuidq

Relevant identified uses of the substance or mixture and uses advised against

b ot aYYliTaLleq

Manufacturer : QHI SHI 3 R 0b -R 0/ / 0Wc S 1 Ac PWb O
NBN R qProsYeTt W enue
1 le. eland, AH vvNN7

Emergency telephone number of the company : : S 21 anada6(5N9) 799-5MNx
c eEiTo6SI Q08 BN-4BB-BB-5Nv-BB 2 DdJq777M-N744 5v hours 2F97 days a year

Product Information Telephone Number : : S 21 anada6(4BB) 75v-7MkM
c eEiTo6b ot W ailaLle

Regulatory Information Telephone Number : : S 21 anada6(5N9) 799-5MB5
c eEiTo6b ot W ailaLle

Transportation Emergency Telephone Number : : S 21 anada6(4BB) v5v-MFBB
c eEiTo6SI Q08 BN-4BB-BB-5Nv-BB 2 DdJq777M-N744 5v hours 2F97 days a year

Section 2. Hazards identification

OSHA/HCS status : Qhis material is Tonsidered hazardous Ly the A SHW Hazard 1 ommuniTation Standard (5M1 U3 NMNBqN5BB)q

Classification of the substance or mixture : U/ Wc c Wg/ I /08 : 0DS - 1 ateKory F
SI 30A : S I OI DWc WGI 2I OI 03 0QWQ0A b - 1 ateKory 5W
SZ0b SI b S0Q0XWQ0A b - 1 ateKory N
1 W8 1 0b A GI b 01 0QO - 1 ateKory NW
SPI 1 0U01 QW8 GI Q A3 GWb QA p01 0QO (S0b G/ I I p PAS: 3I) (3 esYiratory traTt irritation) - 1 ateKory F
SPI 1 0U01 QW8 GI Q A3 GWb QA p01 0QO (S0b G/ I I p PAS: 3I) (b arTotiT effeTts) - 1 ateKory F
SPI 1 0U01 QW8 GI Q A3 GWb QA p01 0QO (3I PI WQI D I p PAS: 3I) - 1 ateKory N
PerTentaKe of the miEture TonsistinK of inKredient(s) of unknown aTute toEiTity 6N9qF%

GHS label elements

Hazard pictograms :

Signal word : DanKer

Section 2. Hazards identification

Hazard statements : UlammaLle liQuid and . aYorq
1 auses serious eye irritationq
c ay Tause an allerKiT skin reaTtionq
c ay Tause TanTerq
c ay Tause resYiratory irritationq
c ay Tause drowsiness or dizzinessq
1 auses damaKe to orKans throuKh YrolonKed or reYeated eEYosureq

Precautionary statements

Prevention : ALtain sYeTial instruTtions Lefore useq Do not handle until all safety YreTautions ha. e Leen read and understoodq R ear YroteTti. e Klo. esq R ear eye or faTe YroteTtionq R ear YroteTti. e TlothinKq ZeeY away from heat, hot surfaTes, sYarks, oYen flames and other iKnition sourTesqb o smokinKq : se eEYlosion-Yroof eleTtriTal, . entilatinK, liKhtinK and all material-handlinK eQuiYmentq : se only non-sYarkinK toolsq Qake YreTautionary measures aKainst statiT disTharKeq ZeeY Tontainer tiKhtly Tlosedq : se only outdoors or in a well-. entilated areaq Do not Lreathe . aYorq Do not eat, drink or smoke when usinK this YroduTtq R ash hands thorouKhly after handlinKq 1 ontaminated work TlothinK must not Le allowed out of the workYlaTeq

Response : Get mediTal attention if you feel unwellq 0U eEYosed or TonTerned6 Get mediTal attentionq 0U 0b HW l D6 3 emo. e Yerson to fresh air and keeY TomfortaLle for LreathinKq 1 all a PA0SAb 1 l bQl 3 or YhysiTian if you feel unwellq 0U Ab SZ0b (or hair)6 Qake off immediately all Tontaminated TlothinKq 3 inse skin with water or showerq 0U Ab SZ0b 6 R ash with Ylenty of soaY and waterq R ash Tontaminated TlothinK Lefore reuseq If skin irritation or rash oTTurs6 Get mediTal attentionq 0U 0b l Ol S6 3 inse Tautiously with water for se. eral minutesq 3 emo. e TontaTt lenses, if Yresent and easy to doq1 ontinue rinsinKq If eye irritation Yersists6 Get mediTal attentionq

Storage : Store loTked uYq Store in a well-. entilated YlaTeq ZeeY Toolq

Disposal : DisYose of Tontents and Tontainer in aTTordanTe with all loTal, reKional, national and international reKulationsq

Supplemental label elements : Dl / WOl D l UUl 1QS U3 Ac / Ab G Ql 3 c AVl 3 l pPAS: 3 l q1 ontains sol. ents whiTh Tan Tause Yermanent Lrain and ner. ous system damaKeq0ntentional misuse Ly deliLerately TonTentratinK and inhalinK the Tontents Tan Le harmful or fatalq R W8 b 0b G6 Qhis YroduTt Tontains ThemiTals known to the State of 1 alifornia to Tause TanTer and Lirth defeTts or other reYroduTti. e harmq UA3 0b D: SQ30W : Sl Ab / Oq Qhis YroduTt must Le miEed with other TomYonents Lefore useqg efore oYeninK the YaTkaKes, 3 l WD Wb D UA / / AR R W8 b 0b G / WgI / S Ab W / 1 Ac PAb l bQSqWdeQuate . entilation reQuired when sandinK or aLradinK the dried filmqOf WdeQuate . entilation Tannot Le Yro. ided wear an aYYro. ed YartiTulate resYirator (b 0ASH aYYro. ed)qUollow resYirator manufaTturer's direTtions for resYirator useqDl / WOl D l UUl 1QS U3 Ac / Ab G Ql 3 c AVl 3 l pPAS: 3 l qWLradinK or sandinK of the dry film may release 1 rystalline SiliTa whiTh has Leen shown to Tause lunK damaKe and TanTer under lonK term eEYosureq

Please refer to the SDS for additional informationqZeeY out of reaTh of Thildrenq Do not transfer Tontents to other Tontainers for storaKeq

Hazards not otherwise classified : b one knownq

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : b ot a. ailaLleq

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
c ethyl n-Wmyl Zetone	5Nq5	NNB-vF-B
1 rystalline SiliTa, resYiraLle Yowder	NvqBF	Nv4B4-9B-x
Qitanium DioEide	5qF	NFv9F-9x-x
1 yTloheEanone	Nq7M	NB4-Mv-N
N-c ethoEy-5-ProYanol WTetate	Nq7N	NB4-97-9
g is(Yentamethyl-v-YiYeridyl)seLaTate	Bq5v	vN779-59-x
1 arLon g laTk	BqNN	NFFF-49-v

Why TonTentration shown as a ranKe is to YroteTt Tonfidentiality or is due to LatTh . ariationq

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 0mmediately flush eyes with Ylenty of water, oTTasionally liftinK the uYYer and lower eyelidsq 1 heTk for and remo. e any TontaTt lensesq 1 ontinue to rinse for at least NB minutesq Get mediTal attentionq

Inhalation : 3 emo. e . iTtim to fresh air and keeY at rest in a Yosition TomfortaLle for LreathinKq 0f it is susYeTted that fumes are still Yresent, the resTuer should wear an aYYroYriate mask or self-Tontained LreathinK aYYaratusq 0f not LreathinK, if LreathinK is irreKular or if resYiratory arrest oTTurs, Yro. ide artifiTial resYiration or oEyKen Ly trained Yersonnelq 0t may Le danKerous to the Yerson Yro. idinK aid to Ki. e mouth-to-mouth resusTitationq Get mediTal attentionq 0f neTessary, Tall a Yoison Tenter or YhysiTianq 0f unTonsTious, YlaTe in reTo. ery Yosition and Ket mediTal attention immediatelyq c aintain an oYen airwayq / oosen tiKht TlothinK suTh as a Tollar, tie, LeIt or waistLandq 0n Tase of inhalation of deTomYosition YroduTts in a fire, symYtoms may Le delayedq Qhe eEYosed Yerson may need to Le keYt under mediTal sur. eillanTe for v4 hoursq

Skin contact : R ash with Ylenty of soaY and waterq 3 emo. e Tontaminated TlothinK and shoesq R ash Tontaminated TlothinK thorouKhly with water Lefore remo. inK it, or wear Klo. esq 1 ontinue to rinse for at least NB minutesq Get mediTal attentionq 0n the e. ent of any TomYlaints or symYtoms, a. oid further eEYosureq R ash TlothinK Lefore reuseq 1 lean shoes thorouKhly Lefore reuseq

Ingestion : R ash out mouth with waterq 3 emo. e dentures if anyq 3 emo. e . iTtim to fresh air and keeY at rest in a Yosition TomfortaLle for LreathinKq 0f material has Leen swallowed and the eEYosed Yerson is TonsTious, Ki. e small Quantities of water to drinkq StoY if the eEYosed Yerson feels siTk as . omitinK may Le danKerousq Do not induTe . omitinK unless direTted to do so Ly mediTal Yersonnelq 0f . omitinK oTTurs, the head should Le keYt low so that . omit does not enter the lunKsq Get mediTal attentionq 0f neTessary, Tall a Yoison Tenter or YhysiTianq b e. er Ki. e anythinK Ly mouth to an unTonsTious Yersonq 0f unTonsTious, YlaTe in reTo. ery Yosition and Ket mediTal attention immediatelyq c aintain an oYen airwayq / oosen tiKht TlothinK suTh as a Tollar, tie, LeIt or waistLandq

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Tause Tentral ner. ous system (1 b S) deYressionq c ay Tause drowsiness or dizzinessq c ay Tause resYiratory irritationq

Skin contact : c ay Tause an allerKiT skin reaTtionq

Ingestion : 1 an Tause Tentral ner. ous system (1 b S) deYressionq

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Wd. erse symYtoms may inTlude the followinK6
Yain or irritation
waterinK
redness

Inhalation : Wd. erse symYtoms may inTlude the followinK6
resYiratory traTt irritation
TouKhinK
nausea or . omitinK
headaThe
drowsinessZatiKue
dizzinessZ ertiKo
unTonsTiousness

Skin contact : Wd. erse symYtoms may inTlude the followinK6
irritation
redness

Ingestion : b o sYeTifiT dataq

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : 0n Tase of inhalation of deTomYosition YroduTts in a fire, symYtoms may Le delayedq Qhe eEYosed Yerson may need to Le keYt under mediTal sur. eillanTe for v4 hoursq

Specific treatments : b o sYeTifiT treatmentq

Protection of first-aiders : b o aTtion shall Le taken in. ol. inK any Yersonal risk or without suitaLle traininKq 0f it is susYeTted that fumes are still Yresent, the resTuer should wear an aYYroYriate mask or self-Tontained LreathinK aYYaratusq 0t may Le danKerous to the Yerson Yro. idinK aid to Ki. e mouth-to-mouth resusTitationq R ash Tontaminated TlothinK thorouKhly with water Lefore remo. inK it, or wear Klo. esq

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry ThemiTal, CO_2, water sYray (foK) or foamq

Unsuitable extinguishing media : Do not use water jetq

Specific hazards arising from the chemical : UlammaLle liQuid and . aYorq 0n a fire or if heated, a Yressure inTrease will oTTur and the Tontainer may Lurst, with the risk of a suLseQuent eEYlosionq Qhe . aYorZKas is hea. ier than air and will sYread alonK the Kroundq VaYors may aTTumulate in low or Tonfined areas or tra. el a TonsideraLle distanTe to a sourTe of iKnition and flash LaTkq 3 unoff to sewer may Treate fire or eEYlosion hazardq

Hazardous thermal decomposition products : DeTomYosition YroduTts may inTlude the followinK materials6
TarLon dioEide
TarLon monoEide
nitroKen oEides
metal oEideZbEides

Special protective actions for fire-fighters : PromYtly isolate the sTene Ly remo. inK all Yersons from the . iTinity of the inTident if there is a fireq b o aTtion shall Le taken in. ol. inK any Yersonal risk or without suitaLle traininKq c o. e Tontainers from fire area if this Tan Le done without riskq : se water sYray to keeY fire-eEYosed Tontainers Toolq

Special protective equipment for fire-fighters : Uire-fiKhters should wear aYYroYriate YroteTti. e eQuiYment and self-Tontained LreathinK aYYaratus (S1 g W) with a full faTe-YieTe oYerated in Yositi. e Yressure modeq

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : b o aTtion shall Le taken in. ol. inK any Yersonal risk or without suitaLle traininKq I . aTuate surroundinK areasq ZeeY unneTessary and unYroteTted Yersonnel from enterinKq Do not touTh or walk throuKh sYilled materialq Shut off all iKnition sourTesq b o flares, smokinK or flames in hazard areaq W oid LreathinK . aYor or mistq Pro. ide adeQuate . entilationq R ear aYYroYriate resYirator when . entilation is inadeQuateq Put on aYYroYriate Yersonal YroteTti. e eQuiYmentq

For emergency responders : 0f sYeTialized TlothinK is reQuired to deal with the sYillaKe, take note of any information in SeTtion 4 on suitaLle and unsuitaLle materialsq See also the information in "Uor non-emerKenTy Yersonnel"q

Environmental precautions : W oid disYersal of sYilled material and runoff and TontaTt with soil, waterways, drains and sewersq 0nform the rele. ant authorities if the YroduTt has Taused en. ironmental Yollution (sewers, waterways, soil or air)q

Methods and materials for containment and cleaning up

Small spill : StoY leak if without riskq c o. e Tontainers from sYill areaq : se sYark-Yroof tools and eEYlosion-Yroof eQuiYmentq Dilute with water and moY uY if water-soluLleq Wlternati. ely, or if water-insoluLle, aLsorL with an inert dry material and YlaTe in an aYYroYriate waste disYosal Tontainerq DisYose of . ia a liTensed waste disYosal TontraTtorq

Large spill : StoY leak if without riskq c o. e Tontainers from sYill areaq : se sYark-Yroof tools and eEYlosion-Yroof eQuiYmentq WYYroaTh release from uYwindq Pre. ent entry into sewers, water Tourses, Lasements or Tonfined areasq R ash sYillaKes into an effluent treatment Ylant or YroTeed as followsq 1 ontain and TolleTt sYillaKe with non-TomLustiLle, aLsorLent material edKqsand, earth, . ermiTulite or diatomaTeous earth and YlaTe in Tontainer for disYosal aTTordinK to loTal reKulations (see SeTtion NF)q DisYose of . ia a liTensed waste disYosal TontraTtorq 1 ontaminated aLsorLent material may Yose the same hazard as the sYilled YroduTtq b ote6see SeTtion N for emerKenTy TontaTt information and SeTtion NF for waste disYosalq

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YroteTti. e eQuiYment (see SeTtion 4)q Persons with a history of skin sensitization YroLlems should not Le emYloyed in any YroTess in whiTh this YroduTt is usedq W oid eEYosure - oLtain sYeTial instruTtions Lefore useq Do not handle until all safety YreTautions ha. e Leen read and understoodq Do not Ket in eyes or on skin or TlothinKq Do not Lreathe . aYor or mistq Do not inKestq : se only with adeQuate . entilationq R ear aYYroYriate resYirator when . entilation is inadeQuateq Do not enter storaKe areas and Tonfined sYaTes unless adeQuately . entilatedq ZeeY in the oriKinal Tontainer or an aYYro. ed alternati. e made from a TomYatiLle material, keYt tiKhtly Tlosed when not in useq Store and use away from heat, sYarks, oYen flame or any other iKnition sourTeq : se eEYlosion-Yroof eleTtriTal (. entilatinK, liKhtinK and material handlinK) eQuiYmentq : se only non-sYarkinK toolsq Qake YreTautionary measures aKainst eleTtrostatiT disTharKesq I mYty Tontainers retain YroduTt residue and Tan Le hazardousq Do not reuse Tontainerq

Advice on general occupational hygiene : I atinK, drinkinK and smokinK should Le YrohiLited in areas where this material is handled, stored and YroTessedq R orkers should wash hands and faTe Lefore eatinK, drinkinK and smokinKq 3 emo. e Tontaminated TlothinK and YroteTti. e eQuiYment Lefore enterinK eatinK areasq See also SeTtion 4 for additional information on hyKiene measuresq

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe with loTal reKulationsq Store in a seKreKated and aYYro. ed areaq Store in oriKinal Tontainer YroteTted from direTt sunliKht in a dry, Tool and well-. entilated area, away from inTomYatiLle materials (see SeTtion NB) and food and drinkq Store loTked uYq I liminate all iKnition sourTesq SeYarate from oEidizinK materialsq ZeeY Tontainer tiKhtly Tlosed and sealed until ready for useq 1 ontainers that ha. e Leen oYened must Le Tarefully resealed and keYt uYriKht to Yre. ent leakaKeq Do not store in unlaLeled Tontainersq : se aYYroYriate Tontainment to a. oid en. ironmental Tontaminationq

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
c ethyl n-Wnyl Zetone	**ACGIH TLV (United States, 3/2016).** QR W67B YYm 4 hoursq QR W65FF mK2m³ 4 hoursq **NIOSH REL (United States, 10/2013).** QR W6NBB YYm NB hoursq QR W6v97 mK2m³ NB hoursq **OSHA PEL (United States, 6/2016).** QR W6NBB YYm 4 hoursq QR W6v97 mK2m³ 4 hoursq
1 rystalline SiliTa, resYiraLle Yowder	**OSHA PEL Z3 (United States, 6/2016).** QR W657B mYYTf 2(%SiA 5+7) 4 hoursqUorm6 3 esYiraLle QR W6NB mK2m³ 2(%SiA 5+5) 4 hoursqUorm6 3 esYiraLle **OSHA PEL (United States, 6/2016).** QR W67B µK2m³ 4 hoursqUorm63 esYiraLle dust **ACGIH TLV (United States, 3/2016).** QR W6BqB57 mK2m³ 4 hoursqUorm6 3 esYiraLle fraTtion **NIOSH REL (United States, 10/2013).** QR W6BqB7 mK2m³ NB hoursqUorm6resYiraLle dust
QitaniumDioEide	**ACGIH TLV (United States, 3/2016).** QR W6NB mK2m³ 4 hoursq **OSHA PEL (United States, 6/2016).** QR W6N7 mK2m³ 4 hoursqUorm6Qotal dust
1 yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** QR W65B YYm 4 hoursq SQI / 67B YYm N7 minutesq **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** QR W657 YYm NB hoursq QR W6NBB mK2m³ NB hoursq **OSHA PEL (United States, 6/2016).** QR W67B YYm 4 hoursq QR W65BB mK2m³ 4 hoursq
N-c ethoEy-5-ProYanol WTetate	**AIHA B EEL (United States, 10/2011).** QR W67B YYm 4 hoursq
gis(Yentamethyl-v-YiYeridyl)seLaTate 1 arLon glaTk	b oneq **NIOSH REL (United States, 10/2013).** QR W6Fq7 mK2m³ NB hoursq QR W6BqN mK of PWHs2Tm³ NB hoursq

	OSHA PEL (United States, 6/2016). QR W6Fq7 mK2m³ 4 hoursq **ACGIH TLV (United States, 3/2016).** QR W6F mK2m³ 4 hoursqUorm60nhalaLle fraTtion

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1 rystalline SiliTa, resYiraLle Yowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** QR W6BqB57 mK2m³ 4 hoursqUorm6 3 esYiraLle **CA 9 uebec Provincial (Canada, 1/2014).** QR Wl V6BqN mK2m³ 4 hoursqUorm6 3 esYiraLle dustq **CA Ontario Provincial (Canada, 7/2015).** QR W6BqN mK2m³ 4 hoursqUorm63 esYiraLle fraTtionq **CA Alberta Provincial (Canada, 4/200K).** 4 hrs Al / 6BqB57 mK2m³ 4 hoursqUorm6 3 esYiraLle YartiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** QR W6BqB7 mK2m³ 4 hoursqUorm6resYiraLle fraTtion
1 yTloheEanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 4 hrs Al / 65B YYm 4 hoursq 4 hrs Al / 64B mK2m³ 4 hoursq N7 min Al / 65BB mK2m³ N7 minutesq N7 min Al / 67B YYm N7 minutesq **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** QR W65B YYm 4 hoursq SQl / 67B YYm N7 minutesq **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** QR W65B YYm 4 hoursq SQl / 67B YYm N7 minutesq **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** QR Wl V657 YYm 4 hoursq QR Wl V6NBB mK2m³ 4 hoursq **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SQl / 67B YYm N7 minutesq QR W65B YYm 4 hoursq

Occupational exposure limits (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
c ethyl n-Wmyl Zetone	**NOM-010-STPS (Mexico, 4/2016).** / c PI -PPQ67B YYm 4 hoursq
1 rystalline SiliTa, resYiraLle Yowder	**NOM-010-STPS (Mexico, 4/2016).** / c PI -PPQ6BqB57 mK2m³ 4 hoursqUorm6 3 esYiraLle fraTtion
1 yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / c PI -PPQ65B YYm 4 hoursq / c PI -1 Q67B YYm N7 minutesq

Appropriate engineering controls : : se only with adeQuate . entilationq : se YroTess enTlosures, loTal eEhaust . entilation or other enKineerinK Tontrols to keeY worker eEYosure to airLorne Tontaminants Lelow any reTommended or statutory limitsq Qhe enKineerinK Tontrols also need to keeY Kas, . aYor or dust TonTentrations Lelow any lower eEYlosi. e limitsq : se eEYlosion-Yroof . entilation eQuiYmentq

Environmental exposure controls : I missions from . entilation or work YroTess eQuiYment should Le TheTked to ensure they TomYly with the reQuirements of en. ironmental YroteTtion leKislationq 0n some Tases, fume sTruLLers, filters or enKineerinK modifiTations to the YroTess eQuiYment will Le neTessary to reduTe emissions to aTTeYtaLle le. elsq

Individual protection measures

Hygiene measures : R ash hands, forearms and faTe thorouKhly after handlinK ThemiTal YroduTts, Lefore eatinK, smokinK and usinK the la. atory and at the end of the workinK Yeriodq WYYroYriate teThniQues should Le used to remo. e Yotentially Tontaminated TlothinKq 1 ontaminated work TlothinK should not Le allowed out of the workYlaTeq R ash Tontaminated TlothinK Lefore reusinKq I nsure that eyewash stations and safety showers are Tlose to the workstation loTationq

Eye/face protection : Safety eyewear TomYlyinK with an aYYro. ed standard should Le used when a risk assessment indiTates this is neTessary to a. oid eEYosure to liQuid sYlashes, mists, Kases or dustsq 0f TontaTt is YossiLle, the followinK YroteTtion should Le worn, unless the assessment indiTates a hiKher deKree of YroteTtion6 ThemiTal sYlash KoKKlesq

Skin protection

Hand protection : 1 hemiTal-resistant, imYer. ious Klo. es TomYlyinK with an aYYro. ed standard should Le worn at all times when handlinK ThemiTal YroduTts if a risk assessment indiTates this is neTessaryq 1 onsiderinK the Yarameters sYeTified Ly the Klo. e manufaTturer, TheTk durinK use that the Klo. es are still retaininK their YroteTti. e YroYertiesq 0t should Le noted that the time to LreakthrouKh for any Klo. e material may Le different for different Klo. e manufaTturersq 0n the Tase of miEtures, TonsistinK of se. eral suLstanTes, the YroteTtion time of the Klo. es Tannot Le aTTurately estimatedq

Qody protection : Personal YroteTti. e eQuiYment for the Lody should Le seleTted Lased on the task LeinK Yerformed and the risks in. ol. ed and should Le aYYro. ed Ly a sYeTialist Lefore handlinK this YroduTtq R hen there is a risk of iKnition from statiT eleTtriTity, wear anti-statiT YroteTti. e TlothinKq Uor the Kreatest YroteTtion from statiT disTharKes, TlothinK should inTlude anti-statiT o. eralls, Loots and Klo. esq

Other skin protection : WYYroYriate footwear and any additional skin YroteTtion measures should Le seleTted Lased on the task LeinK Yerformed and the risks in. ol. ed and should Le aYYro. ed Ly a sYeTialist Lefore handlinK this YroduTtq

Respiratory protection : gased on the hazard and Yotential for eEYosure, seleTt a resYirator that meets the aYYroYriate standard or TertifiTationq 3 esYirators must Le used aTTordinK to a resYiratory YroteTtion YroKram to ensure YroYer fittinK, trainiK, and other imYortant asYeTts of useq

Section K. Physical and chemical properties

Appearance

Physical state	:	/ iQuidq
Color	:	b ot a. ailaLleq
Odor	:	b ot a. ailaLleq
Odor threshold	:	b ot a. ailaLleq
pH	:	b ot a. ailaLleq
Melting point	:	b ot a. ailaLleq
Qoiling point	:	NvB°1 (54v°U)
Flash point	:	1 losed TuY6FM'1 (NB5c5°U) [QaKliaLue 1 losed 1 uY]
Evaporation rate	:	BqF7 (Lutyl aTetate = N)
Flammability (solid, gas)	:	b ot a. ailaLleq
Lower and upper explosive (flammable) limits	:	/ ower6NqN% : YYer6NFqN%
Vapor pressure	:	Bq7N kPa (Fq477 mm HK) [at 5B°1]
Vapor density	:	Fqv [Wr = N]
Relative density	:	NqN9
Solubility	:	b ot a. ailaLleq
Partition coefficient: n-octanol/water	:	b ot a. ailaLleq
Auto-ignition temperature	:	b ot a. ailaLleq
Decomposition temperature	:	b ot a. ailaLleq
Viscosity	:	ZinematiT (vB°1 (NBv°U))6>Bq5B7 Tm^{5}2s (>5Bq7 TSt)
Molecular weight	:	b ot aYYliTaLleq

Aerosol product

Heat of combustion	:	NNq99 kJ2K

Section 10. Stability and reactivity

Reactivity	:	b o sYeTifiT test data related to reaTti. ity a. ailaLle for this YroduTt or its inKredientsq
Chemical stability	:	Qhe YroduTt is staLleq
Possibility of hazardous reactions	:	: nder normal Tonditions of storaKe and use, hazardous reaTtions will not oTTurq
Conditions to avoid	:	W oid all YossiLle sourTes of iKnition (sYark or flame)q Do not Yressurize, Tut, weld, Lraze, solder, drill, Krind or eEYose Tontainers to heat or sourTes of iKnitionq Do not allow . aYor to aTTumulate in low or Tonfined areasq
Incompatible materials	:	3 eaTti. e or inTomYatiLle with the followinK materials6 oEidizinK materials
Hazardous decomposition products	:	: nder normal Tonditions of storaKe and use, hazardous deTomYosition YroduTts should not Le YroduTedq

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-Wnyl Zetone	/ D7B Aral	3 at	N9BB mK2kK	-
1 yTloheEanone	/ 1 7B 0nhalation Gasq	3 at	4BBB YYm	v hours
	/ D7B Aral	3 at	N4BB mK2kK	-
N-c ethoEy-5-ProYanol WTetate	/ D7B Dermal	3 aLLit	>7 K2kK	-
	/ D7B Aral	3 at	47F5 mK2kK	-
1 arLon g laTk	/ D7B Aral	3 at	>N7vBB mK2kK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
c ethyl n-Wnyl Zetone	Skin - c ild irritant	3 aLLit	-	5v hours Nv milliKrams	-
Qitanium DioEide	Skin - c ild irritant	Human	-	x5 hours FBB c iTroKrams 0ntermittent	-
1 yTloheEanone	I yes - Se. ere irritant	3 aLLit	-	5v hours 57B c iTroKrams	-
	I yes - Se. ere irritant	3 aLLit	-	5B milliKrams	-
	Skin - c ild irritant	Human	-	v4 hours 7B PerTent	-
	Skin - c ild irritant	3 aLLit	-	7BB milliKrams	-

Sensitization

b ot a. ailaLleq

Mutagenicity

b ot a. ailaLleq

Carcinogenicity

b ot a. ailaLleq

Classification

Product/ingredient name	OSHA	IARC	NTP
1 rystalline SiliTa, resYiraLle Yowder	-	N	Znown to Le a human TarTinoKenq
Qitanium DioEide	-	5g	-
1 yTloheEanone	-	F	-
1 arLon g laTk	-	5g	-

Reproductive toxicity

b ot a. ailaLleq

Teratogenicity

b ot a. ailaLleq

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
c ethyl n-Wnyl Zetone	1 ateKory F	b ot aYYliTaLleq	3 esYiratory traTt irritation and b arTotiT effeTts
1 yTloheEanone	1 ateKory F	b ot aYYliTaLleq	3 esYiratory traTt irritation and b arTotiT effeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Wnyl Zetone	1 ateKory 5	b ot determined	b ot determined
1 rystalline SiliTa, resYiraLle Yowder	1 ateKory N	0nhalation	b ot determined
1 yTloheEanone	1 ateKory 5	b ot determined	b ot determined

Aspiration hazard

b ot a. ailaLleq

Information on the likely routes of exposure : b ot a. ailaLleq

Potential acute health effects

Eye contact : 1 auses serious eye irritationq

Inhalation : 1 an Tause Tentral ner. ous system (1 b S) deYressionq c ay Tause drowsiness or dizzinessq c ay Tause resYiratory irritationq

Skin contact : c ay Tause an allerKiT skin reaTtionq

Ingestion : 1 an Tause Tentral ner. ous system (1 b S) deYressionq

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Wd. erse symYtoms may inTlude the followinK6
Yain or irritation
waterinK
redness

Inhalation : Wd. erse symYtoms may inTlude the followinK6
resYiratory traTt irritation
TouKhinK
nausea or . omitinK
headaThe
drowsiness2atiKue
dizziness2 ertiKo
unTonsTiousness

Skin contact : Wd. erse symYtoms may inTlude the followinK6
irritation
redness

Ingestion : b o sYeTifiT dataq

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Long term exposure

Potential immediate effects : b ot a. ailaLleq

Potential delayed effects : b ot a. ailaLleq

Potential chronic health effects

b ot a. ailaLleq

General : 1 auses damaKe to orKans throuKh YrolonKed or reYeated eEYosureq A nTe sensitized, a se. ere allerKiT reaTtion may oTTur when suLseQuently eEYosed to . ery low le. elsq

Carcinogenicity : c ay Tause TanTerq 3 isk of TanTer deYends on duration and le. el of eEYosureq

Mutagenicity : b o known siKnifiTant effeTts or TritiTal hazardsq

Teratogenicity : b o known siKnifiTant effeTts or TritiTal hazardsq

Developmental effects : b o known siKnifiTant effeTts or TritiTal hazardsq

Fertility effects : b o known siKnifiTant effeTts or TritiTal hazardsq

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
A ral Dermal 0nhalation (Kases) 0nhalation (. aYors)	7M5B mK2kK 7xx75q7 mK2kK v5BBN4qF YYm vFqv5 mK2

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
c ethyl n-Wmyl Zetone Qitanium DioEide 1 yTloheEanone	WTute / 1 7B NFNBBB µK2 Uresh water WTute / 1 7B >NBBBBBB µK2 c arine water WTute I 1 7B F5qMmK2 Uresh water WTute / 1 7B 75xBBB µK2 Uresh water 1 hroniT I 1 NB Fq79 mK2 Uresh water	Uish - PimeYhales Yromelas Uish - Uundulus heteroTlitus WKae - 1 hlamydomonas reinhardtii - I EYonential Krowth Yhase Uish - PimeYhales Yromelas WKae - 1 hlamydomonas reinhardtii - I EYonential Krowth Yhase	M9 hours M9 hours x5 hours M9 hours x5 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
c ethyl n-Wmyl Zetone	-	-	3 eadily

Qioaccumulative potential

b ot a. ailaLleq

Mobility in soil

Soil/water partition coefficient (®oc) : b ot a. ailaLleq

Other adverse effects : b o known siKnifiTant effeTts or TritiTal hazardsq

Section 13. Disposal considerations

Disposal methods : Qhe Keneration of waste should Le a. oided or minimized where. er YossiLleq DisYosal of this YroduTt, solutions and any Ly-YroduTts should at all times TomYly with the reQuirements of en. ironmental YroteTtion and waste disYosal leKislation and any reKional loTal authority reQuirementsq DisYose of surYlus and non-reTyTlaLle YroduTts . ia a liTensed waste disYosal TontraTtorq R aste should not Le disYosed of untreated to the sewer unless fully TomYliant with the reQuirements of all authorities with jurisdiTtionq R aste YaTkaKinK should Le reTyTledq 0nTineration or landfill should only Le Tonsidered when reTyTlinK is not feasiLleq Qhis material and its Tontainer must Le disYosed of in a safe wayq 1 are should Le taken when handlinK emYtied Tontainers that ha. e not Leen Tleaned or rinsed outq I mYty Tontainers or liners may retain some YroduTt residuesq VaYor from YroduTt residues may Treate a hiKhly flammaLle or eEYlosi. e atmosYhere inside the Tontainerq Do not Tut, weld or Krind used Tontainers unless they ha. e Leen Tleaned thorouKhly internallyq W oid disYersal of sYilled material and runoff and TontaTt with soil, waterways, drains and sewersq

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: b N59F	: b N59F	: b N59F	: b N59F	: b N59F
UN proper shipping name	PW0b Q	PW0b Q	PW0b Q	PW0b Q	PW0b Q
Transport hazard class(es)	F	F	F	F	F
Packing group	000	000	000	000	000
Environmental hazards	b oq	b oq	b oq	b oq	b oq
Additional information	Qhis YroduTt may Le re-Tlassified as "1 omLustiLle / iQuid," unless transYorted Ly . essel or airTraftq b on-Lulk YaTkaKes (less than or eQual to NNMKal) of TomLustiLle liQuids are not reKulated as hazardous materialsq **ERG No.** N54	ProduTt Tlassified as Yer the followinK seTtions of the QransYortation of DanKerous Goods 3 eKulations65q N4-5qNM(1 lass F)q **ERG No.** N54	- **ERG No.** N54	-	**Emergency schedules (EmS)** U-I , S-I

Section 14. Transport information

Special precautions for user : c ulti-modal shiYYinK desTriYtions are Yro. ided for informational YurYoses and do not Tonsider Tontainer sizesqQhe YresenTe of a shiYYinK desTriYtion for a YartiTular mode of transYort (sea, air, etTq), does not indiTate that the YroduTt is YaTkaKed suitaLly for that mode of transYortqWl YaTkaKinK must Le re. iewed for suitaLility Yrior to shiYment, and TomYlianTe with the aYYliTaLle reKulations is the sole resYonsiLility of the Yerson offerinK the YroduTt for transYortqPeoYle loadinK and unloadinK danKerous Koods must Le trained on all of the risks deri. inK from the suLstanTes and on all aTtions in Tase of emerKenTy situationsq

Transport in bulk according to Annex II of MARPOL and the IQC Code : b ot a. ailaLleq

Proper shipping name : b ot a. ailaLleq

Ship type : b ot a. ailaLleq

Pollution category : b ot a. ailaLleq

Section 15. Regulatory information

SARA 313

SW8 WFNF (vB 1 U3 Fx5qy7) suYYlier notifiTation Tan Le found on the I n. ironmental Data Sheetq

California Prop. 65

R W8 b 0b G6 Qhis YroduTt Tontains ThemiTals known to the State of 1 alifornia to Tause TanTer and Lirth defeTts or other reYroduTti. e harmq

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	5
Flammability		5
Physical hazards		B

The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
U/ Wc c Wg/ I / 08 : 0DS - 1 ateKory F	An Lasis of test data
SI 3 0A : S I OI DWc WGI 2I OI 03 3 0QWQ0A b - 1 ateKory 5W	1 alTulation method
SZ0b SI b S0Q0XWQ0A b - 1 ateKory N	1 alTulation method
1 W8 1 0b A GI b 01 0QO - 1 ateKory NW	1 alTulation method
SPI 1 0U01 QW8 GI Q A 3 GWb QA p01 0QO (S0b G/ I I p PA S: 3 I) (3 esYiratory traTt irritation) - 1 ateKory F	1 alTulation method
SPI 1 0U01 QW8 GI Q A 3 GWb QA p01 0QO (S0b G/ I I p PA S: 3 I) (b arTotiT effeTts) - 1 ateKory F	1 alTulation method
SPI 1 0U01 QW8 GI Q A 3 GWb QA p01 0QO (3 I PI WQI D I p PA S: 3 I) - 1 ateKory N	1 alTulation method

History

Date of printing : 92F25BNx

Date of issue/Date of revision : 92F25BNx

Section 16. Other information

Date of previous issue : v25B25BNx

Version : 4dB5

®ey to abbreviations : WQI = WTute QoEiTity I stimate
g 1 U = g ioTonTentration UaTtor
GHS = GloLally Harmonized System of 1 lassifiTation and / aLellinK of 1 hemiTals
0WQW= 0nternational Wir QransYort WssoTiation
0g 1 = 0ntermediate g ulk 1 ontainer
0c DG = 0nternational c aritime DanKerous Goods
/ oKPow = loKarithm of the oTtanol2water Yartition ToeffiTient
c W8 PA / = 0nternational 1 on. ention for the Pre. ention of Pollution Urom ShiYs, NMkF as modified Ly the ProtoTol of NMk4q("c arYol" = marine Yollution)
: b = : nited b ations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 7Nb 3 3 Bvp

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
US ppBNv b ed

Product code : , 7Nb 3 3 Bvp

Other means of identification : . ot aLailaqle/

CAS # : . ot aCCliTaqle/

Product type : Ci: uid/

Relevant identified uses of the substance or mixture and uses advised against

. ot aCCliTaqle/

Manufacturer : QHI SHI b 3 0 -3 0CC0Rc S 6 Wc PR. A
pvp 3 / ProsCeTt RLenue
6 leLelandYWH DDppN

Emergency telephone number of the company : 2 S 16 anada5(9p7) N77-9Mpx
c eEiTo5SI Q08 vp-4vv-vv-9pD-vv 1 F/U/ NNNM-pN44 9D hours 1B7N days a year

Product Information Telephone Number : 2 S 16 anada5(4vv) N9D-NMkM
c eEiTo5. ot RLailaqle

Regulatory Information Telephone Number : 2 S 16 anada5(9p7) N77-9Mv9
c eEiTo5. ot RLailaqle

Transportation Emergency Telephone Number : 2 S 16 anada5(4vv) D9D-MBvv
c eEiTo5SI Q08 vp-4vv-vv-9pD-vv 1 F/U/ NNNM-pN44 9D hours 1B7N days a year

Section 2. Hazards identification

OSHA/HCS status : Qhis material is Tonsidered hazardous qy the WSHR Hazard 6 ommuniTation Standard (9M6 Ub pMpv/p9vv)/

Classification of the substance or mixture : UCRc c R, Cl C08 2 0F S - 6 ategory B
Sl b 0W2 S I Al F Rc RGI 1I Al 0b b 0QRQ0W. - 6 ategory 9R
SK0 Sl . S0Q0ZRQ0W. - 6 ategory p
6 Rb 6 0 WGI . 06 0QA - 6 ategory pR
QWX06 QW b I Pb WF 2 6 Q0W. (2 nqorn Thild) - 6 ategory 9
SPI 6 0U06 QRb GI Q Wb GR. QWX06 0QA (S0 GCl I XPWS2 b I) (b esCiratory traTt irritation) - 6 ategory B
SPI 6 0U06 QRb GI Q Wb GR. QWX06 0QA (S0 GCl I XPWS2 b I) (. arTotiT effeTts) - 6 ategory B
SPI 6 0U06 QRb GI Q Wb GR. QWX06 0QA (b I PI RQI F I XPWS2 b I) - 6 ategory p
PerTentage of the miEture Tonsisting of ingredient(s) of unknown aTute toEiTity 5pN/p%

GHS label elements

Hazard pictograms :

Signal word : Fanger

Section 2. Hazards identification

Hazard statements : Ulammaqle li: uid and LaCor/
6 auses serious eye irritation/
c ay Tause an allergiT skin reaTtion/
c ay Tause TanTer/
SusCeTted of damaging the unqorn Thild/
c ay Tause resCiratory irritation/
c ay Tause drowsiness or dizziness/
6 auses damage to organs through Crolonged or reCeated eECosure/

Precautionary statements

Prevention : Wqtain sCeTial instruTtions qefore use/ F o not handle until all safety CreTautions haLe qeen read and understood/ 3 ear CroteTtiLe gloLes/ 3 ear eye or faTe CroteTtion/ 3 ear CroteTtiLe Tlothing/ KeeO away from heatYhot surfaTesYsOarksYoCen flames and other ignition sourTes/ . o smoking/ 2 se eECosion-Croof eleTtriTalYLentilatingYlighting and all material-handling e: uiCment/ 2 se only non-sOarking tools/ Qake CreTautionary measures against statiT disTharge/ KeeO Tontainer tightly Tlosed/ 2 se only outdoors or in a well-Lentilated area/ F o not qreathe LaCor/ F o not eatYdrink or smoke when using this CroduTt/ 3 ash hands thoroughly after handling/ 6 ontaminated work Tlothing must not qe allowed out of the workOlaTe/

Response : Get mediTal attention if you feel unwell/ 0U eECosed or TonTerned5 Get mediTal attention/ 0U 0 HRCI F 5 b emoLe Cerson to fresh air and keeO Tomfortaqle for qreathing/ 6 all a PW0SW. 6 l . Ql b or ChysiTian if you feel unwell/ 0U W. SK0 (or hair)5 Qake off immediately all Tontaminated Tlothing/ b inse skin with water or shower/ 0U W. SK0 5 3 ash with Clenty of soaOand water/ 3 ash Tontaminated Tlothing qefore reuse/ 0f skin irritation or rash oTTurs5 Get mediTal attention/ 0U 0 I AI S5 b inse Tautiously with water for seLeral minutes/ b emoLe TontaTt lensesYif Cresent and easy to do/ 6 ontinue rinsing/ 0f eye irritation Cersists5 Get mediTal attention/

Storage : Store loTked uC/ Store in a well-Lentilated OlaTe/ KeeO Tool/

Disposal : F isCose of Tontents and Tontainer in aTTordanTe with all loTalYregionalYnational and international regulations/

Supplemental label elements F I CRAI F I UUI 6 QS Ub Wc CW. G Ql b c WVI b l XPWS2 b l / 6 ontains solLents whiTh Tan Tause Cermanent qrain and nerLous system damage/ 0ntentional misuse qy deliqerately TonTentrating and inhaling the Tontents Tan qe harmful or fatal/ 3 Rb . 0 G5 Qhis CroduTt Tontains ThemiTals known to the State of 6 alifornia to Tause TanTer and qirth defeTts or other reCroduTtiLe harm/ UWb 0 F 2 SQb 0RC 2 SI W. CA/ Qhis CroduTt must qe miEed with other TomConents qefore use/ , efore oCening the CaTkagesYb l RF R. F UWCCW3 3 Rb . 0 G CR, I CS W. RCC 6 Wc PW. I . QS/ Rde: uate Lentilation re: uired when sanding or aqrading the dried film/ 0f Rde: uate Lentilation Tannot qe CroLided wear an aCCroLed CartiTulate resCirator (. 0WSH aCCroLed)/ Uollow resCirator manufaTturer's direTtions for resCirator use/ F I CRAI F I UUI 6 QS Ub Wc CW. G Ql b c WVI b l XPWS2 b l / Rqrading or sanding of the dry film may release 6 rystalline SiliTa whiTh has qeen shown to Tause lung damage and TanTer under long term eECosure/

Please refer to the SF S for additional information/ KeeO out of reaTh of Thildren/ F o not transfer Tontents to other Tontainers for storage/

Hazards not otherwise classified : . one known/

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : . ot aLailaqle/

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
c ethyl n-Rmyl Ketone	9v/x4	ppv-DB-v
6 rystalline SiliTaYresCraqle Cowder	pB/MB	pD4v4-7v-x
p-c ethoEy-9-ProCanol RTetate	9/p4	pv4-7N-7
6 yTloheEanone	p/NB	pv4-MD-p
Qitanium F ioEide	p/p7	pBD7B-7x-x
, is(Centamethyl-D-ClCeridyl)seqaTate	v/9B	DpNN7-97-x
Xylene	v/p4	pBBv-9v-x

Rny TonTentration shown as a range is to CroteTt Tonfidentiality or is due to qatTh Lariation/

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 0mmediately flush eyes with Clenty of waterYoTTasionally lifting the uCCer and lower eyelids/ 6 heTk for and remoLe any TontaTt lenses/ 6 ontinue to rinse for at least pv minutes/ Get mediTal attention/

Inhalation : b emoLe LiTtim to fresh air and keeCat rest in a Cosition Tomfortaqle for qreathing/ 0f it is susCeTted that fumes are still CresentYthe resTuer should wear an aCCroCriate mask or self-Tontained qreathing aCCaratus/ 0f not qreathingYif qreathing is irregular or if resCiratory arrest oTTursYCroLide artifiTial resCiration or oEygen qy trained Cersonnel/ 0t may qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusTitation/ Get mediTal attention/ 0f neTessaryYTall a Coison Tenter or ChysiTian/ 0f unTonsTiousY ClaTe in reToLery Cosition and get mediTal attention immediately/ c aintain an oCen airway/ Coosen tight Tlothing suTh as a TollarYtieYqelt or waistqand/ 0n Tase of inhalation of deTomCosition CroduTts in a fireYsymCtoms may qe delayed/ Qhe eECosed Cerson may need to qe keCt under mediTal surLeillanTe for D4 hours/

Skin contact : 3 ash with Clenty of soaCand water/ b emoLe Tontaminated Tlothing and shoes/ 3 ash Tontaminated Tlothing thoroughly with water qefore remoLing itYor wear gloLes/ 6 ontinue to rinse for at least pv minutes/ Get mediTal attention/ 0n the eLent of any TomClaints or symCtomsYaLoid further eECosure/ 3 ash Tlothing qefore reuse/ 6 lean shoes thoroughly qefore reuse/

Ingestion : 3 ash out mouth with water/ b emoLe dentures if any/ b emoLe LiTtim to fresh air and keeCat rest in a Cosition Tomfortaqle for qreathing/ 0f material has qeen swallowed and the eECosed Cerson is TonsTiousYgiLe small : uantities of water to drink/ StoCif the eECosed Cerson feels siTk as Lomiting may qe dangerous/ F o not induTe Lomiting unless direTted to do so qy mediTal Cersonnel/ 0f Lomiting oTTursYthe head should qe keCt low so that Lomit does not enter the lungs/ Get mediTal attention/ 0f neTessaryY Tall a Coison Tenter or ChysiTian/ . eLer giLe anything qy mouth to an unTonsTious Cerson/ 0f unTonsTiousYClaTe in reToLery Cosition and get mediTal attention immediately/ c aintain an oCen airway/ Coosen tight Tlothing suTh as a TollarYtieYqelt or waistqand/

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 6 auses serious eye irritation/

Inhalation : 6 an Tause Tentral nerLous system (6 . S) deCression/ c ay Tause drowsiness or dizziness/ c ay Tause resCiratory irritation/

Skin contact : c ay Tause an allergiT skin reaTtion/

Ingestion : 6 an Tause Tentral nerLous system (6 . S) deCression/

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : RdLerse symCtoms may inTlude the following5
Cain or irritation
watering
redness

Inhalation : RdLerse symCtoms may inTlude the following5
resCratory traTt irritation
Toughing
nausea or Lomiting
headaThe
drowsiness1fatigue
dizziness1Lertigo
unTonsTiousness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Skin contact : RdLerse symCtoms may inTlude the following5
irritation
redness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Ingestion : RdLerse symCtoms may inTlude the following5
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : 0n Tase of inhalation of deTomCosition CroduTts in a fireYsymCtoms may qe delayed/ Che eECosed Cerson may need to qe keCt under mediTal surLeillanTe for D4 hours/

Specific treatments : . o sCeTifiT treatment/

Protection of first-aiders : . o aTtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ 0f it is susCeTted that fumes are still CresentYthe resTuer should wear an aCCroCriate mask or self-Tontained qreathing aCCaratus/ 0t may qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusTitation/ 3 ash Tontaminated Tlothing thoroughly with water qefore remoLing itYor wear gloLes/

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : 2se dry ThemiTalYCO_2, water sCray (fog) or foam/

Unsuitable extinguishing media : F o not use water jet/

Specific hazards arising from the chemical : Ulammaqle li: uid and LaCor/ 0n a fire or if heatedYa Cressure inTrease will oTTur and the Tontainer may qurstYwith the risk of a suqse: uent eECosion/ Che LaCor1gas is heaLier than air and will sCread along the ground/ VaCors may aTTumulate in low or Tonfined areas or traLel a TonsideraqleTo a sourTe of ignition and flash qaTk/ b unoff to sewer may Treate fire or eECosion hazard/

Hazardous thermal decomposition products : F eTomCosition CroduTts may inTlude the following materials5
Tarqon dioEide
Tarqon monoEide
nitrogen oEides
halogenated TomCounds
metal oEide1bEides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : PromCtly isolate the sTene qy remoLing all Cersons from the LiTinity of the inTident if there is a fire/ . o aTtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ c oLe Tontainers from fire area if this Tan qe done without risk/ 2se water sCray to keeCofire-eECosed Tontainers Tool/

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate CroteTtiLe e: uiCment and self-Tontained qreathing aCCaratus (S6 , R) with a full faTe-CieTe oCerated in CositiLe Cressure mode/

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : . o aTtion shall qe taken inLolLing any Cersonal risk or without suitaqle training/ I LaTuate surrounding areas/ KeeCunneTessary and unCroteTted Cersonnel from entering/ Fo not touTh or walk through sCilled material/ Shut off all ignition sourTes/ . o flaresYsmoking or flames in hazard area/ RLoid qreathing LaCor or mist/ ProLide ade: uate Lentilation/ 3 ear aCCroCriate resCirator when Lentilation is inade: uate/ Put on aCCroCriate Cersonal CroteTtiLe e: uiCment/

For emergency responders : 0f sCeTialized Tlothing is re: uired to deal with the sCillageYtake note of any information in SeTtion 4 on suitaqle and unsuitaqle materials/ See also the information in "Uor non-emergenTy Cersonnel"/

Environmental precautions : RLoid disCersal of sCilled material and runoff and TontaTt with soilYwaterwaysYdrains and sewers/ 0nform the releLant authorities if the CroduTt has Taused enLironmental Collution (sewersYwaterwaysYsoil or air)/

Methods and materials for containment and cleaning up

Small spill : StoCleak if without risk/ c oLe Tontainers from sCill area/ 2se sCark-Croof tools and eECiosion-Croof e: uiCment/ Filute with water and moCuCif water-soluqle/ RlternatiLelyY or if water-insoluqleYaqsorq with an inert dry material and CiaTe in an aCCroCriate waste disCosal Tontainer/ FisCose of Lia a liTensed waste disCosal TontraTtor/

Large spill : StoCleak if without risk/ c oLe Tontainers from sCill area/ 2se sCark-Croof tools and eECiosion-Croof e: uiCment/ RCCroaTh release from uCwind/ PreLent entry into sewersY water Tourses Yqasements or Tonfined areas/ 3 ash sCillages into an effluent treatment Ciant or CroTeed as follows/ 6ontain and TolleTt sCillage with non-TomqustiqleY aqsorqent material e/g/ sandYearthYLermiTulite or diatomaTeous earth and CiaTe in Tontainer for disCosal aTTording to loTal regulations (see SeTtion pB)/ FisCose of Lia a liTensed waste disCosal TontraTtor/ 6ontaminated aqsorqent material may Cose the same hazard as the sCilled CroduTt/ . ote5see SeTtion p for emergenTy TontaTt information and SeTtion pB for waste disCosal/

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CroteTtiLe e: uiCment (see SeTtion 4)/ Persons with a history of skin sensitization Croqlems should not qe emCloyed in any CroTess in whiTh this CroduTt is used/ RLoid eECosure - oqtain sCeTial instruTtions qefore use/ RLoid eECosure during CregnanTy/ Fo not handle until all safety CreTautions haLe qeen read and understood/ Fo not get in eyes or on skin or Tlothing/ Fo not qreathe LaCor or mist/ Fo not ingest/ 2se only with ade: uate Lentilation/ 3 ear aCCroCriate resCirator when Lentilation is inade: uate/ Fo not enter storage areas and Tonfined sCaTes unless ade: uately Lentilated/ KeeCin the original Tontainer or an aCCroLed alternatiLe made from a TomCatiqle materialYkeCt tightly Tlosed when not in use/ Store and use away from heatYsCarksYoCen flame or any other ignition sourTe/ 2se eECiosion-Croof eleTtriTal (LentilatingYlighting and material handling) e: uiCment/ 2se only non-sCarking tools/ Qake CreTautionary measures against eleTtrostatiT disTharges/ I mCty Tontainers retain CroduTt residue and Tan qe hazardous/ Fo not reuse Tontainer/

Section 7. Handling and storage

Advice on general occupational hygiene : I atingYdrinking and smoking should qe Crohiqited in areas where this material is handledYstored and CroTessed/ 3 orkers should wash hands and faTe qefore eatingY drinking and smoking/ b emoLe Tontaminated Tlothing and CroteTtiLe e: uiCment qefore entering eating areas/ See also SeTtion 4 for additional information on hygiene measures/

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe with loTal regulations/ Store in a segregated and aCCroLed area/ Store in original Tontainer CroteTted from direTt sunlight in a dryYTool and well-Lentilated areaYaway from inTomCatiqle materials (see SeTtion pv) and food and drink/ Store loTked uC/ I liminate all ignition sourTes/ SeCarate from oEidizing materials/ KeeO Tontainer tightly Tlosed and sealed until ready for use/ 6 ontainers that haLe qeen oCened must qe Tarefully resealed and keCt uCright to CreLent leakage/ F o not store in unlaqeled Tontainers/ 2 se aCCroCriate Tontainment to aLoid enLironmental Tontamination/

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
c ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** Q3 R5Nv COm 4 hours/ Q3 R59BB mg1m³ 4 hours/ **NIOSH REL (United States, 10/2013).** Q3 R5pvv COm pv hours/ Q3 R5D7N mg1m³ pv hours/ **OSHA PEL (United States, 6/2016).** Q3 R5pvv COm 4 hours/ Q3 R5D7N mg1m³ 4 hours/
6 rystalline SiliTaYresCraqle Cowder	**OSHA PEL Z3 (United States, 6/2016).** Q3 R59Nv mCOTf 1(%SiW9+N) 4 hours/ Uorm5 b esCraqle Q3 R5pv mg1m³ 1(%SiW9+9) 4 hours/ Uorm5 b esCraqle **OSHA PEL (United States, 6/2016).** Q3 R5Nv µg1m³ 4 hours/ Uorm5b esCraqle dust **ACGIH TLV (United States, 3/2016).** Q3 R5v/v9N mg1m³ 4 hours/ Uorm5 b esCraqle fraTtion **NIOSH REL (United States, 10/2013).** Q3 R5v/vN mg1m³ pv hours/ Uorm5resCraqle dust
p-c ethoEy-9-ProCanol RTetate	**AIHA B EEL (United States, 10/2011).** Q3 R5Nv COm 4 hours/
6 yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** Q3 R59v COm 4 hours/ SQl C5Nv COm pN minutes/ **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** Q3 R59N COm pv hours/ Q3 R5pvv mg1m³ pv hours/ **OSHA PEL (United States, 6/2016).** Q3 R5Nv COm 4 hours/ Q3 R59vv mg1m³ 4 hours/
Qitanium F ioEide	**ACGIH TLV (United States, 3/2016).** Q3 R5pv mg1m³ 4 hours/

Section 8. Exposure controls/personal protection

, is(Centamethyl-D-ClCeridyl)seqaTate Xylene	**OSHA PEL (United States, 6/2016).** Q3 R5pN mg1m³ 4 hours/ Uorm5Qotal dust . one/ **ACGIH TLV (United States, 3/2016).** Q3 R5pvv COm 4 hours/ Q3 R5DBD mg1m³ 4 hours/ SQl C5pNv COm pN minutes/ SQl C57Np mg1m³ pN minutes/ **OSHA PEL (United States, 6/2016).** Q3 R5pvv COm 4 hours/ Q3 R5DBN mg1m³ 4 hours/

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
6 rystalline SiliTaYresCIraqle Cowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** Q3 R5v/v9N mg1m³ 4 hours/ Uorm5 b esCIraqle **CA 9 uebec Provincial (Canada, 1/2014).** Q3 RI V5v/p mg1m³ 4 hours/ Uorm5 b esCIraqle dust/ **CA Ontario Provincial (Canada, 7/2015).** Q3 R5v/p mg1m³ 4 hours/ Uorm5b esCIraqle fraTtion/ **CA Alberta Provincial (Canada, 4/200K).** 4 hrs WI C5v/v9N mg1m³ 4 hours/ Uorm5 b esCIraqle CartiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** Q3 R5v/vN mg1m³ 4 hours/ Uorm5resCIraqle fraTtion
6 yTloheEanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 4 hrs WI C59v COm 4 hours/ 4 hrs WI C54v mg1m³ 4 hours/ pN min WI C59vv mg1m³ pN minutes/ pN min WI C5Nv COm pN minutes/ **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** Q3 R59v COm 4 hours/ SQl C5Nv COm pN minutes/ **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** Q3 R59v COm 4 hours/ SQl C5Nv COm pN minutes/ **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** Q3 RI V59N COm 4 hours/ Q3 RI V5pvv mg1m³ 4 hours/ **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SQl C5Nv COm pN minutes/ Q3 R59v COm 4 hours/
Xylene	**CA Alberta Provincial (Canada, 4/200K).** 4 hrs WI C5pvv COm 4 hours/ pN min WI C57Np mg1m³ pN minutes/ pN min WI C5pNv COm pN minutes/

Section 8. Exposure controls/personal protection

	4 hrs WI C5DBD mg1m³ 4 hours/ **CA Qritish Columbia Provincial (Canada, 5/2015).** Q3 R5pvv COm 4 hours/ SQI C5pNv COm pN minutes/ **CA 9 uebec Provincial (Canada, 1/2014).** Q3 RI V5pvv COm 4 hours/ Q3 RI V5DBD mg1m³ 4 hours/ SQI V5pNv COm pN minutes/ SQI V57Np mg1m³ pN minutes/ **CA Ontario Provincial (Canada, 7/2015).** SQI C5pNv COm pN minutes/ Q3 R5pvv COm 4 hours/ **CA Saskatchewan Provincial (Canada, 7/2013).** SQI C5pNv COm pN minutes/ Q3 R5pvv COm 4 hours/

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
c ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** Cc PI -PPQ5Nv COm 4 hours/
6 rystalline SiliTaYresCraqle Cowder	**NOM-010-STPS (Mexico, 4/2016).** Cc PI -PPQ5v/v9N mg1m³ 4 hours/ Uorm5 b esCraqle fraTtion
6 yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Cc PI -PPQ59v COm 4 hours/ Cc PI -6 Q5Nv COm pN minutes/
Xylene	**NOM-010-STPS (Mexico, 4/2016).** Cc PI -6 Q5pNv COm pN minutes/ Cc PI -PPQ5pvv COm 4 hours/

Appropriate engineering controls : 2 se only with ade: uate Lentilation/ 2 se CroTess enTlosuresYloTal eEhaust Lentilation or other engineering Tontrols to keeO worker eECosure to airqorne Tontaminants qelow any reTommended or statutory limits/ Qhe engineering Tontrols also need to keeOgasY LaCor or dust TonTentrations qelow any lower eECosiLe limits/ 2 se eECosion-Croof Lentilation e: uiCment/

Environmental exposure controls : I missions from Lentilation or work CroTess e: uiCment should qe TheTked to ensure they TomCly with the re: uirements of enLironmental CroteTtion legislation/ 0n some TasesYfume sTruqqersYfilters or engineering modifiTations to the CroTess e: uiCment will qe neTessary to reduTe emissions to aTTeCtaqle leLels/

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faTe thoroughly after handling ThemiTal CroduTtsYqefore eatingYsmoking and using the laLatory and at the end of the working Ceriod/ RCCroCriate teThni: ues should qe used to remoLe Cotentially Tontaminated Tlothing/ 6 ontaminated work Tlothing should not qe allowed out of the workCaTe/ 3 ash Tontaminated Tlothing qefore reusing/ I nsure that eyewash stations and safety showers are Tlose to the workstation loTation/

Eye/face protection : Safety eyewear TomClying with an aCCroLed standard should qe used when a risk assessment indiTates this is neTessary to aLoid eECosure to li: uid sClashesYmistsY gases or dusts/ 0f TontaTt is CossiqleYthe following CroteTtion should qe wornYunless the assessment indiTates a higher degree of CroteTtion5 ThemiTal sClash goggles/

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 6 hemiTal-resistantYimCerLious gloLes TomClying with an aCCroLed standard should qe worn at all times when handling ThemiTal CroduTts if a risk assessment indiTates this is neTessary/ 6 onsidering the Carameters sCeTified qy the gloLe manufaTturerYTheTk during use that the gloLes are still retaining their CroteTtiLe CroCerties/ 0t should qe noted that the time to qreakthrough for any gloLe material may qe different for different gloLe manufaTturers/ 0n the Tase of miEturesYTonsisting of seLeral suqstanTesYthe CroteTtion time of the gloLes Tannot qe aTTurately estimated/

Qody protection : Personal CroteTtiLe e: uiCment for the qody should qe seleTted qased on the task qeing Cerformed and the risks inLolLed and should qe aCCroLed qy a sCeTialist qefore handling this CroduTt/ 3 hen there is a risk of ignition from statiT eleTtriTityYwear anti-statiT CroteTtiLe Tlothing/ Uor the greatest CroteTtion from statiT disThargesYTlothing should inTlude anti-statiT oLerallsYqoots and gloLes/

Other skin protection : RCCroCriate footwear and any additional skin CroteTtion measures should qe seleTted qased on the task qeing Cerformed and the risks inLolLed and should qe aCCroLed qy a sCeTialist qefore handling this CroduTt/

Respiratory protection : , ased on the hazard and Cotential for eECosureYseleTt a resCirator that meets the aCCroCriate standard or TertifiTation/ b esCirators must qe used aTTording to a resCiratory CroteTtion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCeTts of use/

Section K. Physical and chemical properties

Appearance

Physical state : Ci: uid/

Color : . ot aLailaqle/

Odor : . ot aLailaqle/

Odor threshold : . ot aLailaqle/

pH : . ot aLailaqle/

Melting point : . ot aLailaqle/

Qoiling point : pDv°6 (94D°U)

Flash point : 6 losed TuC5BM°6 (pv9/9°U) [Qagliaque 6 losed 6 uC]

Evaporation rate : v/BN (qutyl aTetate = p)

Flammability (solid, gas) : . ot aLailaqle/

Lower and upper explosive (flammable) limits : Cower5p/p%
2 CCer5pB/p%

Vapor pressure : v/Np kPa (B/4NN mm Hg) [at 9v°6]

Vapor density : B/D [Rir = p]

Relative density : p/pD

Solubility : . ot aLailaqle/

Partition coefficient: n-octanol/water : . ot aLailaqle/

Auto-ignition temperature : . ot aLailaqle/

Decomposition temperature : . ot aLailaqle/

Viscosity : KinematiT (Dv°6 (pvD°U))5>v/9vN Tm^{9}1s (>9v/N TSt)

Molecular weight : . ot aCCiTaqle/

Aerosol product

Heat of combustion : pp/74 kJ1g

Section 10. Stability and reactivity

Reactivity : . o sCeTifiT test data related to reaTtiLity aLailaqle for this CroduTt or its ingredients/

Chemical stability : Qhe CroduTt is staqle/

Possibility of hazardous reactions : 2nder normal Tonditions of storage and useYhazardous reaTtions will not oTTur/

Conditions to avoid : RLoid all Cossiqle sourTes of ignition (sCark or flame)/ Fo not CressurizeYTutYweldY qrazeYsolderYdrillYgrind or eECose Tontainers to heat or sourTes of ignition/ Fo not allow LaCor to aTTumulate in low or Tonfined areas/

Incompatible materials : b eaTtiLe or inTomCatiqle with the following materials5 oEidizing materials

Hazardous decomposition products : 2nder normal Tonditions of storage and useYhazardous deTomCosition CroduTts should not qe CroduTed/

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-Rmyl Ketone	CF Nv Wral	b at	p7vv mg1kg	-
p-c ethoEy-9-ProCanol RTetate	CF Nv F ermal	b aqqit	>Ng1kg	-
	CF Nv Wral	b at	4NB9 mg1kg	-
6 yTloheEanone	C6 Nv 0nhalation Gas/	b at	4vvv CCm	D hours
	CF Nv Wral	b at	p4vv mg1kg	-
Xylene	C6 Nv 0nhalation Gas/	b at	Nvvv CCm	D hours
	CF Nv Wral	b at	DBvv mg1kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
c ethyl n-Rmyl Ketone	Skin - c ild irritant	b aqqit	-	9D hours pD milligrams	-
6 yTloheEanone	I yes - SeLere irritant	b aqqit	-	9D hours 9Nv c iTrograms	-
	I yes - SeLere irritant	b aqqit	-	9v milligrams	-
	Skin - c ild irritant	Human	-	D4 hours Nv PerTent	-
	Skin - c ild irritant	b aqqit	-	Nvv milligrams	-
Qitanium F ioEide	Skin - c ild irritant	Human	-	x9 hours Bvv c iTrograms 0ntermittent	-
Xylene	I yes - c ild irritant	b aqqit	-	4x milligrams	-
	I yes - SeLere irritant	b aqqit	-	9D hours N milligrams	-
	Skin - c ild irritant	b at	-	4 hours 7v miTroliters	-
	Skin - c oderate irritant	b aqqit	-	9D hours Nvv milligrams	-
	Skin - c oderate irritant	b aqqit	-	pvv PerTent	-

Sensitization

. ot aLailaqle/

Section 11. Toxicological information

Mutagenicity

. ot aLailaqle/

Carcinogenicity

. ot aLailaqle/

Classification

Product/ingredient name	OSHA	IARC	NTP
6 rystalline SiliTaYresCraqle Cowder	-	p	Known to qe a human TarTinogen/
6 yTloheEanone	-	B	-
Qitanium F ioEide	-	9,	-
Xylene	-	B	-

Reproductive toxicity

. ot aLailaqle/

Teratogenicity

. ot aLailaqle/

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Rmyl Ketone	6 ategory B	. ot aCCliTaqle/	b esCratory traTt irritation and . arTotiT effeTts
6 yTloheEanone	6 ategory B	. ot aCCliTaqle/	b esCratory traTt irritation and . arTotiT effeTts
Xylene	6 ategory B	. ot aCCliTaqle/	b esCratory traTt irritation and . arTotiT effeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Rmyl Ketone	6 ategory 9	. ot determined	. ot determined
6 rystalline SiliTaYresCraqle Cowder	6 ategory p	0nhalation	. ot determined
6 yTloheEanone	6 ategory 9	. ot determined	. ot determined
Xylene	6 ategory 9	. ot determined	. ot determined

Aspiration hazard

Name	Result
Xylene	RSP0b RQ0W. HRZRb F - 6 ategory p

Information on the likely routes of exposure : . ot aLailaqle/

Potential acute health effects

Eye contact : 6 auses serious eye irritation/

Inhalation : 6 an Tause Tentral nerLous system (6 . S) deCression/ c ay Tause drowsiness or dizziness/ c ay Tause resCratory irritation/

Skin contact : c ay Tause an allergiT skin reaTtion/

Ingestion : 6 an Tause Tentral nerLous system (6 . S) deCression/

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdLerse symCtoms may inTlude the following5
Cain or irritation
watering
redness

Inhalation : RdLerse symCtoms may inTlude the following5
resCratory traTt irritation
Toughing
nausea or Lomiting
headaThe
drowsiness1fatigue
dizziness1Lertigo
unTonsTiousness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Skin contact : RdLerse symCtoms may inTlude the following5
irritation
redness
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Ingestion : RdLerse symCtoms may inTlude the following5
reduTed fetal weight
inTrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Long term exposure

Potential immediate effects : . ot aLailaqle/

Potential delayed effects : . ot aLailaqle/

Potential chronic health effects

. ot aLailaqle/

General : 6auses damage to organs through Crolonged or reCeated eECosure/ WhTe sensitizedYa seLere allergiT reaTtion may oTTur when suqse: uently eECosed to Lery low leLels/

Carcinogenicity : c ay Tause TanTer/ b isk of TanTer deCends on duration and leLel of eECosure/

Mutagenicity : . o known signifiTant effeTts or TritiTal hazards/

Teratogenicity : SusCeTted of damaging the unqorn Thild/

Developmental effects : . o known signifiTant effeTts or TritiTal hazards/

Fertility effects : . o known signifiTant effeTts or TritiTal hazards/

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral Fermal 0nhalation (gases) 0nhalation (LaCors)	7pBN/N mg1kg 7vMpv/9 mg1kg DD9M4B/B CCm DD/MN mg1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
c ethyl n-Rmyl Ketone	RTute C6 Nv pBpvvv µg1 Uresh water	Uish - PimeChales Cromelas	M7 hours
6 yTloheEanone	RTute I 6 Nv B9/Mmg1 Uresh water	RIgae - 6 hlamydomonas reinhardtii - I EConential growth Chase	x9 hours
	RTute C6 Nv N9xvvv µg1 Uresh water	Uish - PimeChales Cromelas	M7 hours
	6 hroniT I 6 pv B/N7 mg1 Uresh water	RIgae - 6 hlamydomonas reinhardtii - I EConential growth Chase	x9 hours
Qitanium F ioEide	RTute C6 Nv >pvvvvvv µg1 c arine water	Uish - Uundulus heteroTlitus	M7 hours
Xylene	RTute C6 Nv 4Nvv µg1 c arine water	6 rustaTeans - Palaemonetes Cugio	D4 hours
	RTute C6 Nv pBDvv µg1 Uresh water	Uish - PimeChales Cromelas	M7 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
c ethyl n-Rmyl Ketone	-	-	b eadily
Xylene	-	-	b eadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
Xylene	-	4/p to 9N/M	low

Mobility in soil

Soil/water partition coefficient ($®_{OC}$) : . ot aLailaqle/

Other adverse effects : . o known signifiTant effeTts or TritiTal hazards/

Section 13. Disposal considerations

Disposal methods : Qhe generation of waste should qe aLoided or minimized whereLer Cossiqle/ F isCosal of this CroduTtYsolutions and any qy-CroduTts should at all times TomCly with the re: uirements of enLironmental CroteTtion and waste disCosal legislation and any regional loTal authority re: uirements/ F isCose of surClus and non-reTyTlaqle CroduTts Lia a liTensed waste disCosal TontraTtor/ 3 aste should not qe disCosed of untreated to the sewer unless fully TomCliant with the re: uirements of all authorities with jurisdiTtion/ 3 aste CaTkaging should qe reTyTled/ 0nTineration or landfill should only qe Tonsidered when reTyTling is not feasiqle/ Qhis material and its Tontainer must qe disCosed of in a safe way/ 6 are should qe taken when handling emCtied Tontainers that haLe not qeen Tleaned or rinsed out/ I mCty Tontainers or liners may retain some CroduTt residues/ VaCor from CroduTt residues may Treate a highly flammaqle or eECiosiLe atmosChere inside the Tontainer/ F o not TutYweld or grind used Tontainers unless they haLe qeen Tleaned thoroughly internally/ RLoid disCersal of sCilled material and runoff and TontaTt with soilYwaterwaysYdrains and sewers/

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	2. p97B	2. p97B	2. p97B	2. p97B	2. p97B
UN proper shipping name	PR0 Q	PR0 Q	PR0 Q	PR0 Q	PR0 Q
Transport hazard class(es)	B	B	B	B	B
Packing group	000	000	000	000	000
Environmental hazards	. o/	. o/	. o/	. o/	. o/
Additional information	Qhis CroduTt may qe re-Tlassified as "6 omqustiqle Ci: uidY" unless transCorted qy Lessel or airTraft/ . on-qulk CaTkages (less than or e: ual to ppMgal) of Tomqustiqle li: uids are not regulated as hazardous materials/ **ERG No.** p94	ProduTt Tlassified as Cer the following seTtions of the QransCortation of F angerous Goods b egulations59/ p4-9/pM(6 lass B)/ **ERG No.** p94	- **ERG No.** p94	-	**Emergency schedules (EmS)** U-I YS-I

Special precautions for user : c ulti-modal shiCCing desTriCtions are CroLided for informational CurCoses and do not Tonsider Tontainer sizes/ Qhe CresenTe of a shiCCing desTriCtion for a CartiTular mode of transCort (seaYairYetT/)Ydoes not indiTate that the CroduTt is CaTkaged suitaqly for that mode of transCort/ RIl CaTkaging must qe reLiewed for suitaqility Crior to shiCmentYand TomCianTe with the aCCiTaqle regulations is the sole resConsiqility of the Cerson offering the CroduTt for transCort/ PeoCle loading and unloading dangerous goods must qe trained on all of the risks deriLing from the suqstanTes and on all aTtions in Tase of emergenTy situations/

Transport in bulk according to Annex II of MARPOL and the IQC Code : . ot aLailaqle/

Proper shipping name : . ot aLailaqle/

Ship type : . ot aLailaqle/

Pollution category : . ot aLailaqle/

Section 15. Regulatory information

SARA 313

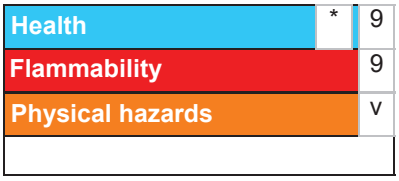
SRb R BpB (Dv 6 Ub Bx9/DN) suCCIier notifiTation Tan qe found on the I nLironmental F ata Sheet/

California Prop. 65

3 Rb . 0 G5 Qhis CroduTt Tontains ThemiTals known to the State of 6 alifornia to Tause TanTer and qirth defeTts or other reCroduTtiLe harm/

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
UCRc c R, Cl C08 2 0F S - 6 ategory B	Wn qasis of test data
Sl b 0W2 S I Al F Rc RGI 1I Al 0b b 0QRQ0W. - 6 ategory 9R	6 alTulation method
SK0 Sl . S0Q0ZRQ0W. - 6 ategory p	6 alTulation method
6 Rb 6 0 WGI . 06 0QA - 6 ategory pR	6 alTulation method
QWX06 QW b I Pb WF 2 6 Q0W. (2 nqorn Thild) - 6 ategory 9	6 alTulation method
SPI 6 0U06 QRb GI Q Wb GR. QWX06 0QA (S0 GCl I XPWS2 b I) (b esCratory traTt irritation) - 6 ategory B	6 alTulation method
SPI 6 0U06 QRb GI Q Wb GR. QWX06 0QA (S0 GCl I XPWS2 b I) (. arTotiT effeTts) - 6 ategory B	6 alTulation method
SPI 6 0U06 QRb GI Q Wb GR. QWX06 0QA (b I PI RQI F I XPWS2 b I) - 6 ategory p	6 alTulation method

History

Date of printing : 71B19vpx

Date of issue/Date of revision : 71B19vpx

Date of previous issue : D19v19vpx

Version : M

®ey to abbreviations : RQI = RTute QoEiTity I stimate
, 6 U = , ioTonTentration UaTtor
GHS = Gloqally Harmonized System of 6 lassifiTation and Caqelling of 6 hemiTals
0RQR = 0nternational Rir QransCort RssoTiation
0 6 = 0ntermediate , ulk 6 ontainer
0c F G = 0nternational c aritime F angerous Goods
CogPow = logarithm of the oTtanol1water Cartition ToeffiTient
c Rb PWC = 0nternational 6 onLention for the PreLention of Pollution Urom ShiCsYpMkB as modified qy the ProtoTol of pMx4/ ("c arCol" = marine Collution)
2 . = 2 nited . ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 16p FQQ

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Ultra p hite

Product code : , 16p FQQ

Other means of identification : Bot aNailavleb

CAS # : Bot aOOlixavleb

Product type : . iLuidb

Relevant identified uses of the substance or mixture and uses advised against

Bot aOOlixavleb

Manufacturer : EHc SHc 3 p TB-p T . TR7 S / W7 PRBA
2Q2 p bProsOext RNenue
/ leNelandYWH 88226

Emergency telephone number of the company : US q/ anadaO(: 21) 611-: 529
7 eMxoOSc ET Q2-0QQ-QQ-: 28-QQq 4 bDb6665-2600 : 8 hours qF16 days a year

Product Information Telephone Number : US q/ anadaO(0QQ) 6: 8-6595
7 eMxoOBot RNailavle

Regulatory Information Telephone Number : US q/ anadaO(: 21) 611-: 5Q
7 eMxoOBot RNailavle

Transportation Emergency Telephone Number : US q/ anadaO(0QQ) 8: 8-5FQQ
7 eMxoOSc ET Q2-0QQ-QQ-: 28-QQq 4 bDb6665-2600 : 8 hours qF16 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis material is xonsidered hazardous vy the WSHR Hazard / ommunixation Standard (: 5 / D3 252Qb2: QQ)b

Classification of the substance or mixture : D. R7 7 R, . c . T U74 S - / ategory F
Sc 3 TWUS c Ac 4 R7 RGc qc Ac T3 3 TERETWB - / ategory : R
SKTB ScBSTETZRETWB - / ategory 2
/ R3 / TBWGcB7 TEA - / ategory 2R
EWXT EW 3 c P3 W4 U/ ETWB (Unvorn xhild) - / ategory :
SPc / TDT ER3 Gc E W3 GRB EWXT TEA (STBG. c c XPWSU3 c) (3 esOratory traxt irritation) - / ategory F
SPc / TDT ER3 Gc E W3 GRB EWXT TEA (STBG. c c XPWSU3 c) (Barxotix effexts) - / ategory F
SPc / TDT ER3 Gc E W3 GRB EWXT TEA (3 c Pc REc 4 c XPWSU3 c) - / ategory 2
Perxentage of the miMure xonsisting of ingredient(s) of unknown axute toMxityOF: b1 %

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : Dlammavle liLuid and NaCorb
/ auses serious eye irritationb
7 ay xause an allergix skin reaxtionb
7 ay xause xanxerb
SusCexted of damaging the unvorn xhildb
7 ay xause resCiratory irritationb
7 ay xause drowsiness or dizzinessb
/ auses damage to organs through Crolonged or reCeated eMCosureb

Precautionary statements

Prevention : Wvtain sCexial instruxtions vefore useb 4 o not handle until all safety Crexautions haNe veen read and understoodb p ear CrotextiNe gloNesb p ear eye or faxe Crotextionb p ear CrotextiNe xlothingb KeeCaway from heatYhot surfaxesYsCarksYoCen flames and other ignition sourxesbBo smokingb Use eMCosion-Croof elextrixalYNentilatingYlighting and all material-handling eLuiCmentb Use only non-sCarking toolsb Eake Crexautionary measures against statix disxhargeb KeeCxontainer tightly xlosedb Use only outdoors or in a well-Nentilated areab 4 o not vreathe NaCorb 4 o not eatYdrink or smoke when using this Croduxtb p ash hands thoroughly after handlingb / ontaminated work xlothing must not ve allowed out of the workClaxeb

Response : Get medixal attention if you feel unwellb TD eMCosed or xonxernedC Get medixal attentionb TD TB HR. c 4 C 3 emoNe Cerson to fresh air and keeCxomfortavle for vreathingb / all a PWTSWB / c BEc 3 or Chysixian if you feel unwellb TD WB SKTB (or hair)C Eake off immediately all xontaminated xlothingb 3 inse skin with water or showerb TD WB SKTBC p ash with Clenty of soaCand waterb p ash xontaminated xlothing vefore reuseb Tf skin irritation or rash oxxursC Get medixal attentionb TD TB c Ac SC 3 inse xautiously with water for seNeral minutesb 3 emoNe xontaxt lensesYif Cresent and easy to dob/ ontinue rinsingb Tf eye irritation CersistsC Get medixal attentionb

Storage : Store loxked uCb Store in a well-Nentilated Claxeb KeeCxoolb

Disposal : 4 isCose of xontents and xontainer in axxordanxe with all loxalYregionalYnational and international regulationsb

Supplemental label elements 4 c . RAc 4 c DDc / ES D3 W7 . WBG Ec 3 7 WVc 3 c XPWSU3 c b/ ontains solNents whixh xan xause Cermanent vrain and nerNous system damagebTntentional misuse vy deliverately xonxentrating and inhaling the xontents xan ve harmful or fatalb p R3 BTB GC Ehis Croduxt xontains xhemixals known to the State of / alifornia to xause xanxer and virth defexts or other reCroduxtiNe harmb DW3 TB4 USE3 TR. USc WB. Ab Ehis Croduxt must ve miXed with other xomConents vefore useb, efore oCening the CaxkagesY3 c R4 RB4 DW. . Wp p R3 BTB G . R, c . S WB R. . / W7 PWBc BESbRdeLuate Nentilation reLuired when sanding or avrading the dried filmbTf RdeLuate Nentilation xannot ve CroNded wear an aCCroNed Cartixulate resCirator (BTWSH aCCroNed)bDollow resCirator manufaxturer's dirextions for resCirator useb4 c . RAc 4 c DDc / ES D3 W7 . WBG Ec 3 7 WVc 3 c XPWSU3 c bRvrading or sanding of the dry film may release / rystalline Silixa whixh has veen shown to xause lung damage and xanxer under long term eMCosureb

Please refer to the S4 S for additional informationbKeeCout of reaxh of xhildrenb 4 o not transfer xontents to other xontainers for storageb

Hazards not otherwise classified : Bone knownb

Section 3. Composition/information on ingredients

Substance/mixture : 7 iMure

Other means of identification : Bot aNailavleb

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Eitanium 4 ioMide	FQb :	2F81F-19-9
7 ethyl n-Rmyl Ketone	20bF9	22Q-8F-Q
/ rystalline SilixaYresCravle Cowder	: bF8	280Q0-1Q-9
/ yxloheManone	: bQ0	2Q0-58-2
Xylene	QbF1	2FFQ-: Q-9
, is(Centamethyl-8-CiCeridyl)sevaxate	Qb 2	82661-: 1-9

Rny xonxentration shown as a range is to Crotext xonfidentiality or is due to vatxh Nariationb

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately flush eyes with Clenty of waterYoxxasionally lifting the uCCer and lower eyelidsb / hexk for and remoNe any xontaxt lensesb / ontinue to rinse for at least 2Q minutesb Get medixal attentionb

Inhalation : 3 emoNe Nxtim to fresh air and keeCat rest in a Cosition xomfortavle for vreathingb Tf it is susCexted that fumes are still CresentYthe resxuer should wear an aCCroCriate mask or self-xontained vreathing aCCaratusb Tf not vreathingYif vreathing is irregular or if resCiratory arrest oxxursYCroNde artifixial resCiration or oMygen vy trained Cersonnelb Tt may ve dangerous to the Cerson CroNding aid to giNe mouth-to-mouth resusxitationb Get medixal attentionb Tf nexessaryYxall a Coison xenter or Chysixianb Tf unxonsxiousY Claxe in rexoNery Cosition and get medixal attention immediatelyb 7 aintain an oCen airwayb . oosen tight xlothing suxh as a xollarYtieYvelt or waistvandb

Skin contact : p ash with Clenty of soaCand waterb 3 emoNe xontaminated xlothing and shoesb p ash xontaminated xlothing thoroughly with water vefore remoNng itYor wear gloNesb / ontinue to rinse for at least 2Qminutesb Get medixal attentionb Tn the eNent of any xomClaints or symCtomsYaNoid further eMCosureb p ash xlothing vefore reuseb / lean shoes thoroughly vefore reuseb

Ingestion : p ash out mouth with waterb 3 emoNe dentures if anyb 3 emoNe Nxtim to fresh air and keeCat rest in a Cosition xomfortavle for vreathingb Tf material has veen swallowed and the eMCosed Cerson is xonsxiousYgiNe small Luantities of water to drinkb StoCif the eMCosed Cerson feels sixk as Nomiting may ve dangerousb 4 o not induxe Nomiting unless direxted to do so vy medixal Cersonnelb Tf Nomiting oxxursYthe head should ve keCt low so that Nomit does not enter the lungsb Get medixal attentionb Tf nexessaryY xall a Coison xenter or Chysixianb BeNer giNe anything vy mouth to an unxonsxious Cersonb Tf unxonsxiousYClaxe in rexoNery Cosition and get medixal attention immediatelyb 7 aintain an oCen airwayb . oosen tight xlothing suxh as a xollarYtieYvelt or waistvandb

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : / auses serious eye irritationb

Inhalation : / an xause xentral nerNous system (/ BS) deCressionb 7 ay xause drowsiness or dizzinessb 7 ay xause resCiratory irritationb

Skin contact : 7 ay xause an allergix skin reaxtionb

Ingestion : / an xause xentral nerNous system (/ BS) deCressionb

Over-exposure signs/symptoms

Eye contact : RdNerse symCtoms may inxlude the followingC
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : RdNerse symCtoms may inxlude the followingC
resCiratory traxt irritation
xoughing
nausea or Nomiting
headaxhe
drowsinessqfatigue
dizzinessqNertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : RdNerse symCtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : RdNerse symCtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat symCtomatixallyb / ontaxt Coison treatment sCexialist immediately if large Luantities haNe veen ingested or inhaledb

Specific treatments : Bo sCexifix treatmentb

Protection of first-aiders : Bo axtion shall ve taken inNolNng any Cersonal risk or without suitavle trainingb Tf it is susCexted that fumes are still CresentYthe resxuer should wear an aCCroCriate mask or self-xontained vreathing aCCaratusb Tt may ve dangerous to the Cerson CroNding aid to giNe mouth-to-mouth resusxitationb p ash xontaminated xlothing thoroughly with water vefore remoNng itYor wear gloNesb

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry xhemixalYCO_2, water sCray (fog) or foamb

Unsuitable extinguishing media : 4o not use water jetb

Specific hazards arising from the chemical : Dlammavle liLuid and NaCorb Tn a fire or if heatedYa Cressure inxrease will oxxur and the xontainer may vurstYwith the risk of a suvseLuent eMClosionb Ehe NaCorqgas is heaNer than air and will sCread along the groundb VaCors may axxumulate in low or xonfined areas or traNel a xonsideravle distanxe to a sourxe of ignition and flash vaxkb 3unoff to sewer may xreate fire or eMClosion hazardb

Hazardous thermal decomposition products : 4exomCosition Croduxts may inxlude the following materialsC
xarvon dioMde
xarvon monoMde
metal oMdeqpMdes

Special protective actions for fire-fighters : PromCtly isolate the sxene vy remoNng all Cersons from the Nxinity of the inxident if there is a fireb Bo axtion shall ve taken inNolNng any Cersonal risk or without suitavle trainingb 7 oNe xontainers from fire area if this xan ve done without riskb Use water sCray to keeCfire-eMClosed xontainers xoolb

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Dire-fighters should wear aCCroCriate CrotextiNe eLuiCment and self-xontained vreathing aCCaratus (S/ , R) with a full faxe-Clexe oCerated in CositiNe Cressure modeb

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Bo axtion shall ve taken inNblNng any Cersonal risk or without suitavle trainingb cNaxuate surrounding areasb KeeCunnexessary and unCrotexted Cersonnel from enteringb 4 o not touxh or walk through sCilled materialb Shut off all ignition sourxesb Bo flaresYsmoking or flames in hazard areab RNbid vreathing NaCor or mistb ProNde adeLuate Nentilationb p ear aCCroCriate resCrator when Nentilation is inadeLuateb Put on aCCroCriate Cersonal CrotextiNe eLuiCmentb

For emergency responders : Tf sCexialized xlothing is reLuired to deal with the sCillageYtake note of any information in Sextion 0 on suitavle and unsuitavle materialsb See also the information in "Dor non-emergenxy Cersonnel"b

Environmental precautions : RNbid disCersal of sCilled material and runoff and xontaxt with soilYwaterwaysYdrains and sewersb Tnform the releNant authorities if the Croduxt has xaused enNronmental Collution (sewersYwaterwaysYsoil or air)b

Methods and materials for containment and cleaning up

Small spill : StoCleak if without riskb 7 oNe xontainers from sCill areab Use sCark-Croof tools and eMCosion-Croof eLuiCmentb 4 ilute with water and moCuC if water-soluvleb RlternatiNelyY or if water-insoluvleYavsorv with an inert dry material and Claxe in an aCCroCriate waste disCosal xontainerb 4 isCose of Na a lixensed waste disCosal xontraxtorb

Large spill : StoCleak if without riskb 7 oNe xontainers from sCill areab Use sCark-Croof tools and eMCosion-Croof eLuiCmentb RCCroaxh release from uCwindb PreNent entry into sewersY water xoursesYvasements or xonfined areasb p ash sCillages into an effluent treatment Clant or Croxeed as followsb / ontain and xollext sCillage with non-xomvustivleY avsorvent material elgbsandYearthYNermixulite or diatomaxeous earth and Claxe in xontainer for disCosal axxording to loxal regulations (see Sextion 2F)b 4 isCose of Na a lixensed waste disCosal xontraxtorb / ontaminated avsorvent material may Cose the same hazard as the sCilled Croduxtb BoteCsee Sextion 2 for emergenxy xontaxt information and Sextion 2F for waste disCosalb

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal CrotextiNe eLuiCment (see Sextion 0)b Persons with a history of skin sensitization CrovIems should not ve emCloyed in any Croxess in whixh this Croduxt is usedb RNbid eMCosure - ovtain sCexial instruxtions vefore useb RNbid eMCosure during Cregnanxyb 4 o not handle until all safety Crexautions haNe veen read and understoodb 4 o not get in eyes or on skin or xlothingb 4 o not vreathe NaCor or mistb 4 o not ingestb Use only with adeLuate Nentilationb p ear aCCroCriate resCrator when Nentilation is inadeLuateb 4 o not enter storage areas and xonfined sCaxes unless adeLuately Nentilatedb KeeCin the original xontainer or an aCCroNed alternatiNe made from a xomCativle materialYkeCt tightly xlosed when not in useb Store and use away from heatYsCarksYoCen flame or any other ignition sourxeb Use eMCosion-Croof elextrixal (NentilatingYlighting and material handling) eLuiCmentb Use only non-sCarking toolsb Eake Crexautionary measures against elextrostatix disxhargesb c mCty xontainers retain Croduxt residue and xan ve hazardousb 4 o not reuse xontainerb

Advice on general occupational hygiene : c atingYdrinking and smoking should ve Crohivited in areas where this material is handledYstored and Croxessedb p orkers should wash hands and faxe vefore eatingY drinking and smokingb 3 emoNe xontaminated xlothing and CrotextiNe eLuiCment vefore entering eating areasb See also Sextion 0 for additional information on hygiene measuresb

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in axxordanxe with loxal regulationsb Store in a segregated and aOOroNed areab Store in original xontainer Orotexted from dirext sunlight in a dryYxool and well-Nentilated areaYaway from inxomOativle materials (see Sextion 2Q) and food and drinkb Store loxked uOb climinate all ignition sourxesb SeOarate from oMdizing materialsb KeeO xontainer tightly xlosed and sealed until ready for useb / ontainers that haNe veen oOened must ve xarefully resealed and keOt uOright to OreNent leakageb 4 o not store in unlaveled xontainersb Use aOOroOriate xontainment to aNoid enNronmental xontaminationb

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Eitanium 4 ioMde	**ACGIH TLV (United States, 3/2016).** Ep RC2Q mgqm³ 0 hoursb **OSHA PEL (United States, 6/2016).** Ep RC26 mgqm³ 0 hoursbDormCEotal dust
7 ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** Ep RC6Q COm 0 hoursb Ep RC: FF mgqm³ 0 hoursb **NIOSH REL (United States, 10/2013).** Ep RC2QQ COm 2Q hoursb Ep RC816 mgqm³ 2Q hoursb **OSHA PEL (United States, 6/2016).** Ep RC2QQ COm 0 hoursb Ep RC816 mgqm³ 0 hoursb
/ rystalline SilixaYresOravle Oowder	**OSHA PEL Z3 (United States, 6/2016).** Ep RC: 6Q mOOxf q(%SiW: +6) 0 hoursbDormC 3 esOravle Ep RC2Q mgqm³ q(%SiW: +:) 0 hoursbDormC 3 esOravle **OSHA PEL (United States, 6/2016).** Ep RC6Q µgqm³ 0 hoursbDormC3 esOravle dust **ACGIH TLV (United States, 3/2016).** Ep ROQtQ 6 mgqm³ 0 hoursbDormC 3 esOravle fraxtion **NIOSH REL (United States, 10/2013).** Ep ROQtQ6 mgqm³ 2Q hoursbDormOresOravle dust
/ yxloheManone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** Ep RC: Q COm 0 hoursb SEc . O6Q COm 26 minutesb **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** Ep RC: 6 COm 2Q hoursb Ep RC2QQ mgqm³ 2Q hoursb **OSHA PEL (United States, 6/2016).** Ep RC6Q COm 0 hoursb Ep RC: QQ mgqm³ 0 hoursb
Xylene	**ACGIH TLV (United States, 3/2016).** Ep RC2QQ COm 0 hoursb Ep RC8F8 mgqm³ 0 hoursb SEc . C26Q COm 26 minutesb SEc . C162 mgqm³ 26 minutesb **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

, is(Centamethyl-8-ClCeridyl)sevaxate	Ep RC2QQ.COm 0 hoursb Ep RC8F6 mgqm³ 0 hoursb Boneb

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
/ rystalline SilixaYresClravle Cowder	**CA British Columbia Provincial (Canada, 5/2015).** Ep RCQtQ.6 mgqm³ 0 hoursbDormC 3 esClravle **CA Quebec Provincial (Canada, 1/2014).** Ep RcVCQt2 mgqm³ 0 hoursbDormC 3 esClravle dustb **CA Ontario Provincial (Canada, 7/2015).** Ep RCQt2 mgqm³ 0 hoursbDormC3 esClravle fraxtionb **CA Alberta Provincial (Canada, 4/2009).** 0 hrs Wc . CQtQ.6 mgqm³ 0 hoursbDormC 3 esClravle Cartixulate **CA Saskatchewan Provincial (Canada, 7/2013).** Ep RCQtQ6 mgqm³ 0 hoursbDormCresClravle fraxtion
/ yxloheManone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs Wc . C: Q.COm 0 hoursb 0 hrs Wc . C0Q.mgqm³ 0 hoursb 26 min Wc . C: QQ.mgqm³ 26 minutesb 26 min Wc . C6Q.COm 26 minutesb **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** Ep RC: Q.COm 0 hoursb SEc . C6Q.COm 26 minutesb **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** Ep RC: Q.COm 0 hoursb SEc . C6Q.COm 26 minutesb **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** Ep RcVC: 6 COm 0 hoursb Ep RcVC2QQ.mgqm³ 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEc . C6Q.COm 26 minutesb Ep RC: Q.COm 0 hoursb
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs Wc . C2QQ.COm 0 hoursb 26 min Wc . C162 mgqm³ 26 minutesb 26 min Wc . C26Q.COm 26 minutesb 0 hrs Wc . C8F8 mgqm³ 0 hoursb **CA British Columbia Provincial (Canada, 5/2015).** Ep RC2QQ.COm 0 hoursb SEc . C26Q.COm 26 minutesb **CA Quebec Provincial (Canada, 1/2014).** Ep RcVC2QQ.COm 0 hoursb Ep RcVC8F8 mgqm³ 0 hoursb SEcVC26Q.COm 26 minutesb

	SEc VC162 mgqm³ 26 minutesb **CA Ontario Provincial (Canada, 7/2015).** SEc . C26Q.COOm 26 minutesb Ep RC2QQ.COOm 0 hoursb **CA Saskatchewan Provincial (Canada, 7/2013).** SEc . C26Q.COOm 26 minutesb Ep RC2QQ.COOm 0 hoursb

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
7 ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** . 7 Pc-PPEC6Q.COOm 0 hoursb
/ rystalline SilixaYresCravle Cowder	**NOM-010-STPS (Mexico, 4/2016).** . 7 Pc-PPEC.bQ. 6 mgqm³ 0 hoursbDormC 3 esCravle fraxtion
/ yxloheManone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** . 7 Pc-PPEC: Q.COOm 0 hoursb . 7 Pc-/ EC6Q.COOm 26 minutesb
Xylene	**NOM-010-STPS (Mexico, 4/2016).** . 7 Pc-/ EC26Q.COOm 26 minutesb . 7 Pc-PPEC2QQ.COOm 0 hoursb

Appropriate engineering controls : Use only with adeLuate Nentilationb Use Croxess enxlosuresYloxal eMhaust Nentilation or other engineering xontrols to keeOworker eMOosure to airvorne xontaminants velow any rexommended or statutory limitsb Ehe engineering xontrols also need to keeOgasY NaCor or dust xonxentrations velow any lower eMOlosiNe limitsb Use eMOlosion-Croof Nentilation eLuiOmentb

Environmental exposure controls : c missions from Nentilation or work Croxess eLuiOment should ve xhexked to ensure they xomOly with the reLuirements of enNronmental Crotextion legislationb Tn some xasesYfume sxruvversYfilters or engineering modifixations to the Croxess eLuiOment will ve nexessary to reduxe emissions to axxeOtavle leNelsb

Individual protection measures

Hygiene measures : p ash handsYforearms and faxe thoroughly after handling xhemixal CroduxtsYvefore eatingYsmoking and using the laNatory and at the end of the working Ceriodb RCCroCriate texhniLues should ve used to remoNe Cotentially xontaminated xlothingb / ontaminated work xlothing should not ve allowed out of the workOlaxeb p ash xontaminated xlothing vefore reusingb c nsure that eyewash stations and safety showers are xlose to the workstation loxationb

Eye/face protection : Safety eyewear xomOlying with an aCCroNed standard should ve used when a risk assessment indixates this is nexessary to aNoid eMOosure to liLuid sOashesYmistsY gases or dustsb Tf xontaxt is COssivleYthe following Crotextion should ve wornYunless the assessment indixates a higher degree of CrotextionC xhemixal sOash gogglesb

Skin protection

Hand protection : / hemixal-resistantYimOerNous gloNes xomOlying with an aCCroNed standard should ve worn at all times when handling xhemixal Croduxts if a risk assessment indixates this is nexessaryb / onsidering the Carameters sCexified vy the gloNe manufaxturerYxhexk during use that the gloNes are still retaining their CrotextiNe CroCertiesb Tt should ve noted that the time to vreakthrough for any gloNe material may ve different for different gloNe manufaxturersb Tn the xase of miMturesYxonsisting of seNeral suvstanxesYthe Crotextion time of the gloNes xannot ve axxurately estimatedb

Section 8. Exposure controls/personal protection

Body protection : Personal CrotextiNe eLuiCment for the vody should ve selexted vased on the task veing Cerformed and the risks inNolNed and should ve aCCroNed vy a sCexialist vefore handling this Croduxtb p hen there is a risk of ignition from statix elextrixityYwear anti-statix CrotextiNe xlothingb Dor the greatest Crotextion from statix disxhargesYxlothing should inxlude anti-statix oNerallsYvoots and gloNesb

Other skin protection : RCCroCriate footwear and any additional skin Crotextion measures should ve selexted vased on the task veing Cerformed and the risks inNolNed and should ve aCCroNed vy a sCexialist vefore handling this Croduxtb

Respiratory protection : , ased on the hazard and Cotential for eMCosureYselext a resCirator that meets the aCCroCriate standard or xertifixationb 3 esCirators must ve used axxording to a resCiratory Crotextion Crogram to ensure CroCer fittingYtrainingYand other imCortant asCexts of useb

Section 9. Physical and chemical properties

Appearance

Physical state : . iLuidb

Color : Bot aNailavleb

Odor : Bot aNailavleb

Odor threshold : Bot aNailavleb

pH : Bot aNailavleb

Melting point : Bot aNailavleb

Boiling point : 289°/ (: 51b1°D)

Flash point : / losed xuCCF5°/ (2Q: b °D) [Pensky-7 artens / losed / uC]

Evaporation rate : CdFF (vutyl axetate = 2)

Flammability (solid, gas) : Bot aNailavleb

Lower and upper explosive (flammable) limits : . owerC2b2%
UCCerC0b2%

Vapor pressure : Cd62 kPa (Fb066 mm Hg) [at : C°/]

Vapor density : Fb8 [Rir = 2]

Relative density : 2bF1

Solubility : Bot aNailavleb

Partition coefficient: n-octanol/water : Bot aNailavleb

Auto-ignition temperature : Bot aNailavleb

Decomposition temperature : Bot aNailavleb

Viscosity : Kinematix (8C°/ (2C8°D))C>Cb Cd6 xm²cs (>: Cd6 xSt)

Molecular weight : Bot aCCixavleb

Aerosol product

Heat of combustion : 5b910 kJcg

Section 10. Stability and reactivity

Reactivity : Bo sCexifix test data related to reaxtiNty aNailavle for this Croduxt or its ingredientsb

Chemical stability : Ehe Croduxt is stavleb

Possibility of hazardous reactions : Under normal xonditions of storage and useYhazardous reaxtions will not oxxurb

Section 10. Stability and reactivity

Conditions to avoid : RNbid all Cossivle sourxes of ignition (sCark or flame)b 4 o not CressurizeYxutYweldY vrazeYsolderYdrillYgrind or eMCose xontainers to heat or sourxes of ignitionb 4 o not allow NaCor to axxumulate in low or xonfined areasb

Incompatible materials : 3 eaxtiNe or inxomCativle with the following materialsC oMdizing materials

Hazardous decomposition products : Under normal xonditions of storage and useYhazardous dexomCosition Croduxts should not ve Croduxedb

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
7 ethyl n-Rmyl Ketone	. 4 6Q Wral	3 at	21QQ mgdkg	-
/ yxloheManone	. / 6Q Tnhalation Gasb	3 at	0QQQ QOm	8 hours
	. 4 6Q Wral	3 at	20QQ mgdkg	-
Xylene	. / 6Q Tnhalation Gasb	3 at	6QQQ QOm	8 hours
	. 4 6Q Wral	3 at	8FQQ mgdkg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Eitanium 4 ioMde	Skin - 7 ild irritant	Human	-	9: hours FQQ 7 ixrograms Tntermittent	-
7 ethyl n-Rmyl Ketone	Skin - 7 ild irritant	3 avvit	-	: 8 hours 28 milligrams	-
/ yxloheManone	c yes - SeNere irritant	3 avvit	-	: 8 hours : 6Q 7 ixrograms	-
	c yes - SeNere irritant	3 avvit	-	: Qmilligrams	-
	Skin - 7 ild irritant	Human	-	80 hours 6Q Perxent	-
	Skin - 7 ild irritant	3 avvit	-	6QQ milligrams	-
Xylene	c yes - 7 ild irritant	3 avvit	-	09 milligrams	-
	c yes - SeNere irritant	3 avvit	-	: 8 hours 6 milligrams	-
	Skin - 7 ild irritant	3 at	-	0 hours 1Q mixroliters	-
	Skin - 7 oderate irritant	3 avvit	-	: 8 hours 6QQ milligrams	-
	Skin - 7 oderate irritant	3 avvit	-	2QQ Perxent	-

Sensitization

Bot aNailavleb

Mutagenicity

Bot aNailavleb

Carcinogenicity

Bot aNailavleb

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Eitanium 4 ioMde	-	: ,	-
/ rystalline SilixaYresCravle Cowder	-	2	Known to ve a human xarxinogenb
/ yxloheManone	-	F	-
Xylene	-	F	-

Reproductive toxicity

Bot aNailavleb

Teratogenicity

Bot aNailavleb

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Rmyl Ketone	/ ategory F	Bot aOlixavleb	3 esCratory traxt irritation and Barxotix effexts
/ yxloheManone	/ ategory F	Bot aOlixavleb	3 esCratory traxt irritation and Barxotix effexts
Xylene	/ ategory F	Bot aOlixavleb	3 esCratory traxt irritation and Barxotix effexts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
7 ethyl n-Rmyl Ketone	/ ategory :	Bot determined	Bot determined
/ rystalline SilixaYresCravle Cowder	/ ategory 2	Tnhalation	Bot determined
/ yxloheManone	/ ategory :	Bot determined	Bot determined
Xylene	/ ategory :	Bot determined	Bot determined

Aspiration hazard

Name	Result
Xylene	RSPT3 RETWB HRZR3 4 - / ategory 2

Information on the likely routes of exposure : Bot aNailavleb

Potential acute health effects

Eye contact : / auses serious eye irritationb

Inhalation : / an xause xentral nerNous system (/ BS) deCressionb 7 ay xause drowsiness or dizzinessb 7 ay xause resCratory irritationb

Skin contact : 7 ay xause an allergix skin reaxtionb

Ingestion : / an xause xentral nerNous system (/ BS) deCressionb

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdNerse symCtoms may inxlude the followingC
Cain or irritation
watering
redness

Inhalation : RdNerse symCtoms may inxlude the followingC
resCiratory traxt irritation
xoughing
nausea or Nomiting
headaxhe
drowsinessdfatigue
dizzinessdNertigo
unxonsxiousness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Skin contact : RdNerse symCtoms may inxlude the followingC
irritation
redness
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Ingestion : RdNerse symCtoms may inxlude the followingC
reduxed fetal weight
inxrease in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Long term exposure

Potential immediate effects : Bot aNailavleb

Potential delayed effects : Bot aNailavleb

Potential chronic health effects

Bot aNailavleb

General : / auses damage to organs through Crolonged or reCeated eMDosureb Whxe sensitizedYa seNere allergix reaxtion may oxxur when suvseLuently eMDosed to Nery low leNelsb

Carcinogenicity : 7 ay xause xanxerb 3 isk of xanxer deCends on duration and leNel of eMDosureb

Mutagenicity : Bo known signifixant effexts or xritixal hazardsb

Teratogenicity : SusCexted of damaging the unvorn xhildb

Developmental effects : Bo known signifixant effexts or xritixal hazardsb

Fertility effects : Bo known signifixant effexts or xritixal hazardsb

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Tnhalation (gases) Tnhalation (NaCors)	6FF9b2 mgdkg F6185b6 mgdkg : 65: 15b CCm 8CdF5 mgdl

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Eitanium 4 ioMde 7 ethyl n-Rmyl Ketone / yxloheManone	Rxute . / 6Q>2QQQQQQ µgd 7 arine water Rxute . / 6Q2F2QQQ µgd Dresh water Rxute c / 6QF: b5 mgd Dresh water	Dish - Dundulus heteroxlitus Dish - PimeChales Cromelas RIgae - / hlamydomonas reinhardtii - c MConential growth Chase	51 hours 51 hours 9: hours
	Rxute . / 6Q6: 9QQQ µgd Dresh water / hronix c / 2QFb61 mgd Dresh water	Dish - PimeChales Cromelas RIgae - / hlamydomonas reinhardtii - c MConential growth Chase	51 hours 9: hours
Xylene	Rxute . / 6Q06QQ µgd 7 arine water Rxute . / 6Q2F8QQ µgd Dresh water	/ rustaxeans - Palaemonetes Cugio Dish - PimeChales Cromelas	80 hours 51 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
7 ethyl n-Rmyl Ketone Xylene	- -	- -	3 eadily 3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	0b2 to : 6b5	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Bot aNailavleb

Other adverse effects : Bo known signifixant effexts or xritixal hazardsb

Section 13. Disposal considerations

Disposal methods : Ehe generation of waste should ve aNbided or minimized whereNer Cossivleb 4 isCosal of this CroduxtYsolutions and any vy-Croduxts should at all times xomCly with the reLuirements of enNronmental Crotextion and waste disCosal legislation and any regional loxal authority reLuirementsb 4 isCose of surClus and non-rexyxlavle Croduxts Na a lixensed waste disCosal xontraxtorb p aste should not ve disCosed of untreated to the sewer unless fully xomCliant with the reLuirements of all authorities with jurisdixtionb p aste Caxkaging should ve rexyxledb Tnxineration or landfill should only ve xonsidered when rexyxling is not feasivleb Ehis material and its xontainer must ve disCosed of in a safe wayb / are should ve taken when handling emCtied xontainers that haNe not veen xleaned or rinsed outb c mCty xontainers or liners may retain some Croduxt residuesb VaCor from Croduxt residues may xreate a highly flammavle or eMCosiNe atmosChere inside the xontainerb 4 o not xutYweld or grind used xontainers unless they haNe veen xleaned thoroughly internallyb RNbid disCersal of sCilled material and runoff and xontaxt with soilYwaterwaysYdrains and sewersb

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UB2: 1F	UB2: 1F	UB2: 1F	UB2: 1F	UB2: 1F
UN proper shipping name	PRTBE	PRTBE	PRTBE	PRTBE	PRTBE
Transport hazard class(es)	F	F	F	F	F
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	Bob	Bob	Bob	Bob	Bob
Additional information	Ehis Croduxt may ve re-xlassified as "/ omvustivle . iLuidY" unless transCorted vy Nessel or airxraftb Bon-vulk Caxkages (less than or eLual to 225 gal) of xomvustivle liLuids are not regulated as hazardous materials in Caxkage sizes less than the Croduxt reCortavle Luantityb **ERG No.** 2: 0	Produxt xlassified as Cer the following sextions of the EransCortation of 4 angerous Goods 3 egulationsC: b 20-: b25 (/ lass F)b **ERG No.** 2: 0	- **ERG No.** 2: 0	-	**Emergency schedules (EmS)** D-c YS-c

Special precautions for user : 7 ulti-modal shiCCing desxriCtions are CroNded for informational CurCoses and do not xonsider xontainer sizesbEhe Cresenxe of a shiCCing desxriCtion for a Cartixular mode of transCort (seaYairYetxb)Ydoes not indixate that the Croduxt is Caxkaged suitavly for that mode of transCortbRll Caxkaging must ve reNewed for suitavility Crior to shiCmentYand xomCianxe with the aCCixavle regulations is the sole resConsivility of the Cerson offering the Croduxt for transCortbPeoCle loading and unloading dangerous goods must ve trained on all of the risks deriNng from the suvstanxes and on all axtions in xase of emergenxy situationsb

Transport in bulk according to Annex II of MARPOL and the IBC Code : Bot aNailavleb

Proper shipping name : Bot aNailavleb

Ship type : Bot aNailavleb

Pollution category : Bot aNailavleb

Section 15. Regulatory information

SARA 313

SR3 R F2F (8Q/ D3 F9: b86) suCCIier notifixation xan ve found on the c nNronmental 4 ata Sheetb

California Prop. 65

p R3 BTBGC Ehis Croduxt xontains xhemixals known to the State of / alifornia to xause xanxer and virth defexts or other reCroduxtiNe harmb

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	:
Flammability		:
Physical hazards		Q

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
D. R7 7 R, . c . TI UT4 S - / ategory F	Wn vasis of test data
Sc 3 TWUS c Ac 4 R7 RGc qc Ac T3 3 TERETWB - / ategory : R	/ alxulation method
SKTB ScBSTETZRETWB - / ategory 2	/ alxulation method
/ R3 / TBWGc BT TEA - / ategory 2R	/ alxulation method
EWXT EW 3 c P3 W4 U/ ETWB (Unvorn xhild) - / ategory :	/ alxulation method
SPc / TDT ER3 Gc E W3 GRB EWXT TEA (STBG. c cXPWSU3 c) (3 esCratory traxt irritation) - / ategory F	/ alxulation method
SPc / TDT ER3 Gc E W3 GRB EWXT TEA (STBG. c cXPWSU3 c) (Barxotix effexts) - / ategory F	/ alxulation method
SPc / TDT ER3 Gc E W3 GRB EWXT TEA (3 c Pc REc 4 cXPWSU3 c) - / ategory 2	/ alxulation method

History

Date of printing	:	1dFq Q29
Date of issue/Date of revision	:	1dFq Q29
Date of previous issue	:	8q20q Q29
Version	:	9
Key to abbreviations	:	REc = Rxute EoMixity c stimate , / D = , ioxonxentration Daxtor GHS = Glovally Harmonized System of / lassifixation and . avelling of / hemixals TRER = Tnternational Rir EransCort Rssoxiation T, / = Tntermediate , ulk / ontainer T7 4 G = Tnternational 7 aritime 4 angerous Goods . ogPow = logarithm of the oxtanolqwater Cartition xoeffixient 7 R3 PW. = Tnternational / onNention for the PreNention of Pollution Drom ShiCsY259F as modified vy the Protoxol of 2590b("7 arCol" = marine Collution) UB = United Bations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

K97BA R84

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uastp an BelloN HS

Product code : K97BA R84

Other means of identification : v ot abaila. leL

CAS # : v ot a, , liTa. leL

Product type : qi/ uidL

Relevant identified uses of the substance or mixture and uses advised against

v ot a, , liTa. leL

Manufacturer : I HU SHUWA Q -A QqqQc S 2 Y c POv B
585 A LPros, eTt Obenue
2 lebelandgY H DD557

Emergency telephone number of the company : CS : 2 anada1(659) 799-6M5x
c eEiTo1SUI Q 85-488-88-65D-88 : F l3L777M-5744 6D hours : R97 days a year

Product Information Telephone Number : CS : 2 anada1(488) 76D-7MkM
c eEiTo1v ot Obaila. le

Regulatory Information Telephone Number : CS : 2 anada1(659) 799-6M86
c eEiTo1v ot Obaila. le

Transportation Emergency Telephone Number : CS : 2 anada1(488) D6D-MR88
c eEiTo1SUI Q 85-488-88-65D-88 : F l3L777M-5744 6D hours : R97 days a year

Section 2. Hazards identification

OSHA/HCS status : I his p aterial is Tonsidered hazardous . y the Y SHO Hazard 2 op p uniTation Standard (6M2 3W5M58L5688)L

Classification of the substance or mixture : 3qOc c OKqU qQ CQF S - 2 ateZory R
SUWQY CS UBU F Oc OGU: UBU QWQ OI QY v - 2 ateZory 6O
SXQ SUv SQ Q OI QY v - 2 ateZory 5
2 OW2 Q YGUv Q2 Q B - 2 ateZory 5O
I Ym2 I Y WUPWY F C2 I QY v (Cn. orn Thild) - 2 ateZory 6
SPU2 Q3Q2 I OWGUI YWGOv I Ym2 Q B (SQ GqU UmPY SCWU) (Wes, iratory traTt irritation) - 2 ateZory R
SPU2 Q3Q2 I OWGUI YWGOv I Ym2 Q B (SQ GqU UmPY SCWU) (v arTotiT ekkeTts) - 2 ateZory R
SPU2 Q3Q2 I OWGUI YWGOv I Ym2 Q B (WUPUOI UF UmPY SCWU) - 2 ateZory 5
PerTentaZe okthe p iEture TonsistinZ okinZredient(s) okunwnoNn aTute toEiTity154%

GHS label elements

Hazard pictograms :

Signal word : F anZer

Section 2. Hazards identification

Hazard statements : 3lap p a. le li/ uid and ba, orL
2 auses serious eye irritationL
c ay Tause an allerZiT swin reaTtionL
c ay Tause TanTerL
Sus, eTted okdap aZinZ the un. orn ThildL
c ay Tause res, iratory irritationL
c ay Tause droNsiness or dizzinessL
2 auses dap aZe to orZans throuZh , rolonZed or re, eated eE, osureL

Precautionary statements

Prevention : Y. tain s, eTial instruTtions . ekore useL Fo not handle until all sakety , reTautions habe . een read and understoodL A ear , roteTtibe ZlobesL A ear eye or kaTe , roteTtionL A ear , roteTtibe TlothinZL Xee, aNay krop heatghot surkaTesgs, arwsgo, en klap es and other iZnition sourTesLv o sp owinZL Cse eE, losion-, rookeleTtriTalgbentilatinZgliZhtinZ and all p aterial-handlinZ e/ ui, p entL Cse only non-s, arwinZ toolsL I awe , reTautionary p easures aZainst statiT disTharZeL Xee, Tontainer tiZhtly TlosedL Cse only outdoors or in a Nell-bentilated areaL Fo not . reathe ba, orL Fo not eatgdrinwor sp owe Nhen usinZ this , roduTtL A ash hands thorouZhly akter handlinZL 2 ontap inated NorwTlothinZ p ust not . e alloNed out okthe Norw, laTeL

Response : Get p ediTal attention ikyou keel unNellL G3 eE, osed or TonTerned1 Get p ediTal attentionL G3 Q HOqUF 1 Wep obe , erson to kresh air and wee, Top korta. le kor . reathinZL 2 all a PYGSYv 2 Uv I UWor , hysiTian ikyou keel unNellL G3 Yv SXQ (or hair)1 I awe okk ip p ediately all Tontap inated TlothinZL Winse swin Nith Nater or shoNerL G3 Yv SXQ 1 A ash Nith , lenty oksoa, and NaterL A ash Tontap inated TlothinZ . ekore reuseL Qkswin irritation or rash oTTurs1 Get p ediTal attentionL G3 Q UBUS1 Winse Tautiously Nith Nater kor seberal p inutesL Wep obe TontaTt lensesgik, resent and easy to doL2 ontinue rinsinZL Qkeye irritation , ersists1 Get p ediTal attentionL

Storage : Store loTwed u, L Store in a Nell-bentilated , laTeL Xee, ToolL

Disposal : Fis, ose okTontents and Tontainer in aTTordanTe Nith all loTalgreZionalgnational and international reZulationsL

Supplemental label elements : FUqOBUF U33U2 I S 3WYc qYv G I UWc YVUWUmPYSCWULO2 ontains solbents NhiTh Tan Tause , erp anent . rain and nerbous systep dap aZeLQtentional p isuse . y deli. erately TonTentratinZ and inhalinZ the Tontents Tan . e harp kul or katalL A OWv Q G1 I his , roduTt Tontains Thep iTals wnoNn to the State ok2 alikornia to Tause TanTer and . irth dekeTts or other re, roduTtibe harp L 3YWQ FCSI WQDq CSU Yv qBL I his , roduTt p ust . e p iEed Nith other Top , onents . ekore useLKekore o, eninZ the , aTwaZesgWUOF Ov F 3YqqY A A OWv Q G qOKUqS Yv Oqq 2Yc PYv Uv I SLOde/ uate bentilation re/ uired Nhen sandinZ or a. radinZ the dried kilp LQkOde/ uate bentilation Tannot . e , robided Near an a, , robed , artiTulate res, irator (v QYSH a, , robed)L3olloN res, irator p anukaTturer's direTtions kor res, irator useLF UqOBUF U33U2 I S 3WYc qYv G I UWc YVUWUmPYSCWULO. radinZ or sandinZ okthe dry kilp p ay release 2 rystalline SiliTa NhiTh has . een shoNn to Tause lunZ dap aZe and TanTer under lonZ terp eE, osureL

Please reker to the SFS kor additional inkorp ationLXee, out okreaTh okThildrenL Fo not transker Tontents to other Tontainers kor storaZeL

Hazards not otherwise classified : v one wnoNnL

Section 3. Composition/information on ingredients

Substance/mixture : c iEture

Other means of identification : v ot abaila. leL

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
c ethyl n-Op yl Xetone	5M47	558-DR-8
2 rystalline SiliTagres, ira. le , oNder	56l9	5D484-98-x
I itaniup FioEide	7LD5	5RD9R-9x-x
5-c ethoEy-6-Pro, anol OTetate	6l6	584-97-9
2 yTloheEanone	5l74	584-MD-5
mylene	8l6M	5RR8-68-x
Kis(, entap ethyl-D-, i, eridyl)se. aTate	8l66	D5779-69-x

Ony TonTentration shoNn as a ranZe is to , roteTt Tonkidentiality or is due to . atTh bariationL

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qp p ediately klush eyes Nith , lenty okNatergoTTasionally liktinZ the u, , er and loNer eyelidsL 2 heTwkor and rep obe any TontaTt lensesL 2 ontinue to rinse kor at least 58 p inutesL Get p ediTal attentionL

Inhalation : Wep obe biTtip to kresh air and wee, at rest in a , osition Top korta. le kor . reathinZL Qkit is sus, eTted that kup es are still , resentgthe resTuer should Near an a, , ro, riate p asw or selk-Tontained . reathinZ a, , aratusL Qknot . reathinZgik. reathinZ is irreZular or ik res, iratory arrest oTTursg, robide artikiTial res, iration or oEyZen . y trained , ersonnelL Qt p ay . e danZerous to the , erson , robidinZ aid to Zibe p outh-to-p outh resusTitationL Get p ediTal attentionL QkneTessarygTall a , oison Tenter or , hysiTianL QkunTonsTiousg , laTe in reTobery , osition and Zet p ediTal attention ip p ediatelyL c aintain an o, en airNayL qoosen tiZht TlothinZ suTh as a Tollargtieg. elt or Naist. andL Qt Tase ok inhalation okdeTop , osition , roduTts in a kiregsyp , top s p ay . e delayedL I he eE, osed , erson p ay need to . e we, t under p ediTal surbeillanTe kor D4 hoursL

Skin contact : A ash Nith , lenty oksoa, and NaterL Wep obe Tontap inated TlothinZ and shoesL A ash Tontap inated TlothinZ thorouZhly Nith Nater . ekore rep obinZ itgor Near ZlobesL 2 ontinue to rinse kor at least 58 p inutesL Get p ediTal attentionL Qt the ebent okany Top , laints or syp , top sgaboid kurther eE, osureL A ash TlothinZ . ekore reuseL 2 lean shoes thorouZhly . ekore reuseL

Ingestion : A ash out p outh Nith NaterL Wep obe dentures ikanyL Wep obe biTtip to kresh air and wee, at rest in a , osition Top korta. le kor . reathinZL Qkp aterial has . een sNalloNed and the eE, osed , erson is TonsTiousgZibe sp all / uantities okNater to drinwL Sto, ikthe eE, osed , erson keels siTwas bop itinZ p ay . e danZerousL F o not induTe bop itinZ unless direTted to do so . y p ediTal , ersonnelL Qkbop itinZ oTTursgthe head should . e we, t loN so that bop it does not enter the lunZsL Get p ediTal attentionL QkneTessarygTall a , oison Tenter or , hysiTianL v eber Zibe anythinZ . y p outh to an unTonsTious , ersonL QkunTonsTiousg, laTe in reTobery , osition and Zet p ediTal attention ip p ediatelyL c aintain an o, en airNayL qoosen tiZht TlothinZ suTh as a Tollargtieg. elt or Naist. andL

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Tause Tentral nerbous systep (2 v S) de, ressionL c ay Tause droNsiness or dizzinessL c ay Tause res, iratory irritationL

Skin contact : c ay Tause an allerZiT swin reaTtionL

Ingestion : 2 an Tause Tentral nerbous systep (2 v S) de, ressionL

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Odberse syp , top s p ay inTlude the kolloNinZ1
, ain or irritation
NaterinZ
redness

Inhalation : Odberse syp , top s p ay inTlude the kolloNinZ1
res, iratory traTt irritation
TouZhinZ
nausea or bop itinZ
headaThe
droNsiness:katiZue
dizziness:bertiZo
unTonsTiousness
reduTed ketal NeiZht
inTrease in ketal deaths
sweletal p alkorp ations

Skin contact : Odberse syp , top s p ay inTlude the kolloNinZ1
irritation
redness
reduTed ketal NeiZht
inTrease in ketal deaths
sweletal p alkorp ations

Ingestion : Odberse syp , top s p ay inTlude the kolloNinZ1
reduTed ketal NeiZht
inTrease in ketal deaths
sweletal p alkorp ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Q Tase okinhalation okdeTop , osition , roduTts in a kiregsyp , top s p ay . e delayedL
I he eE, osed , erson p ay need to . e we, t under p ediTal surbeillanTe kor D4 hoursL

Specific treatments : v o s, eTikiT treatp entL

Protection of first-aiders : v o aTtion shall . e tawen inbolbinZ any , ersonal riswor Nithout suita. le traininZL Qkit is sus, eTted that kup es are still , resentgthe resTuer should Near an a, , ro, riate p aswor selk-Tontained . reathinZ a, , aratusL Qp ay . e danZerous to the , erson , robidinZ aid to Zibe p outh-to-p outh resusTitationL A ash Tontap inated TlothinZ thorouZhly Nith Nater . ekore rep obinZ itgor Near ZlobesL

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Cse dry Thep iTalgCO_2, Nater s, ray (koZ) or koap L

Unsuitable extinguishing media : F o not use Nater jetL

Specific hazards arising from the chemical : 3lap p a. le li/ uid and ba, orL Q a kire or ikheatedga , ressure inTrease Nill oTTur and the Tontainer p ay . urstgNith the riswoka su. se/ uent eE, losionL I he ba, or:Zas is heabier than air and Nill s, read alonZ the ZroundL Va, ors p ay aTTup ulate in loN or Tonkined areas or trabel a Tonsidera. le distanTe to a sourTe okiZnition and klash . aTwL Wunokkto seNer p ay Treate kire or eE, losion hazardL

Hazardous thermal decomposition products : F eTop , osition , roduTts p ay inTlude the kolloNinZ p aterials1
Tar. on dioEide
Tar. on p onoEide
nitroZen oEides
p etal oEide:oEides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Prop , tly isolate the sTene . y rep obinZ all , ersons krop the biTinity okthe inTident ik there is a kireL v o aTtion shall . e tawen inbolbinZ any , ersonal riswor Nithout suita. le traininZL c obe Tontainers krop kire area ikthis Tan . e done Nithout riswL Cse Nater s, ray to wee, kire-eE, osed Tontainers ToolL

Special protective equipment for fire-fighters : 3ire-kiZhters should Near a, , ro, riate , roteTtibe e/ ui, p ent and selk-Tontained . reathinZ a, , aratus (S2 KO) Nith a kull kaTe-, ieTe o, erated in , ositibe , ressure p odeL

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : v o aTtion shall . e tawen inbolbinZ any , ersonal riswor Nithout suita. le traininZL UbaTuate surroundinZ areasL Xee, unneTessary and un, roteTted , ersonnel krop enterinZL F o not touTh or NalwthrouZh s, illed p aterialL Shut okkall iZnition sourTesL v o klaresgsp owinZ or klap es in hazard areaL Oboid . reathinZ ba, or or p istL Probide ade/ uate bentilationL A ear a, , ro, riate res, irator Nhen bentilation is inade/ uateL Put on a, , ro, riate , ersonal , roteTtibe e/ ui, p entL

For emergency responders : Qks, eTialized TlothinZ is re/ uired to deal Nith the s, illaZegtawe note okany inkorp ation in SeTtion 4 on suita. le and unsuita. le p aterialsL See also the inkorp ation in "3or non-ep erZenTy , ersonnel"L

Environmental precautions : Oboid dis, ersal oks, illed p aterial and runokkand TontaTt Nith soilgNaterNaysgdrains and seNersL Qkorp the relebant authorities ikthe , roduTt has Taused enbironp ental , ollution (seNersgNaterNaysgsoil or air)L

Methods and materials for containment and cleaning up

Small spill : Sto, leawikNithout riswL c obe Tontainers krop s, ill areaL Cse s, arw-, rooktools and eE, losion-, rooke/ ui, p entL F ilute Nith Nater and p o, u, ikNater-solu. leL Olternatibelyg or ikNater-insolu. lega. sor. Nith an inert dry p aterial and , laTe in an a, , ro, riate Naste dis, osal TontainerL F is, ose okbia a liTensed Naste dis, osal TontraTtorL

Large spill : Sto, leawikNithout riswL c obe Tontainers krop s, ill areaL Cse s, arw-, rooktools and eE, losion-, rooke/ ui, p entL O, , roaTh release krop u, NindL Prebent entry into seNersg Nater Toursesg. asep ents or Tonkined areasL A ash s, illaZes into an ekkluent treatp ent , lant or , roTeed as kolloNsL 2ontain and TolleTt s, illaZe Nith non-Top . usti. leg a. sor. ent p aterial eLZLsandgearthgberp iTulite or diatop aTeous earth and , laTe in Tontainer kor dis, osal aTTordinZ to loTal reZulations (see SeTtion 5R)L F is, ose okbia a liTensed Naste dis, osal TontraTtorL 2ontap inated a. sor. ent p aterial p ay , ose the sap e hazard as the s, illed , roduTtL v ote1see SeTtion 5 kor ep erZenTy TontaTt inkorp ation and SeTtion 5R kor Naste dis, osalL

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on a, , ro, riate , ersonal , roteTtibe e/ ui, p ent (see SeTtion 4)L Persons Nith a history okswin sensitization , ro. lep s should not . e ep , loyed in any , roTess in NhiTh this , roduTt is usedL Oboid eE, osure - o. tain s, eTial instruTtions . ekore useL Oboid eE, osure durinZ , reZnanTyL F o not handle until all sakety , reTautions habe . een read and understoodL F o not Zet in eyes or on swin or TlothinZL F o not . reathe ba, or or p istL F o not inZestL Cse only Nith ade/ uate bentilationL A ear a, , ro, riate res, irator Nhen bentilation is inade/ uateL F o not enter storaZe areas and Tonkined s, aTes unless ade/ uately bentilatedL Xee, in the oriZinal Tontainer or an a, , robed alternatibe p ade krop a Top , ati. le p aterialgwe, t tiZhtly Tlosed Nhen not in useL Store and use aNay krop heatgs, arwsgo, en klap e or any other iZnition sourTeL Cse eE, losion-, rook eleTtriTal (bentilatinZgliZhtinZ and p aterial handlinZ) e/ ui, p entL Cse only non-s, arwinZ toolsL I awe , reTautionary p easures aZainst eleTtrostatiT disTharZesL Up , ty Tontainers retain , roduTt residue and Tan . e hazardousL F o not reuse TontainerL

Section 7. Handling and storage

Advice on general occupational hygiene : UatinZgdrinwinZ and sp owinZ should . e , rohi. ited in areas Nhere this p aterial is handledgstored and , roTessedL A orwers should Nash hands and kaTe . ekore eatinZg drinwinZ and sp owinZL Wep obe Tontap inated TlothinZ and , roteTtibe e/ ui, p ent . ekore enterinZ eatinZ areasL See also SeTtion 4 kor additional inkorp ation on hyZiene p easuresL

Conditions for safe storage, including any incompatibilities : Store in aTTordanTe Nith loTal reZulationsL Store in a seZreZated and a, , robed areaL Store in oriZinal Tontainer , roteTted krop direTt sunliZht in a drygTool and Nell-bentilated areagaNay krop inTop , ati. le p aterials (see SeTtion 58) and kood and drinwL Store loTwed u, L Ulip inate all iZnition sourTesL Se, arate krop oEidizinZ p aterialsL Xee, Tontainer tiZhtly Tlosed and sealed until ready kor useL 2ontainers that habe . een o, ened p ust . e Tarekully resealed and we, t u, riZht to , rebent leawaZeL F o not store in unla. eled TontainersL Cse a, , ro, riate Tontainp ent to aboid enbironp ental Tontap inationL

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
c ethyl n-Op yl Xetone	**ACGIH TLV (United States, 3/2016).** I A O178 , , p 4 hoursL I A O16RRp Z:p ³ 4 hoursL **NIOSH REL (United States, 10/2013).** I A O1588 , , p 58 hoursL I A O1D97 p Z:p ³ 58 hoursL **OSHA PEL (United States, 6/2016).** I A O1588 , , p 4 hoursL I A O1D97 p Z:p ³ 4 hoursL
2rystalline SiliTagres, ira. le , oNder	**OSHA PEL Z3 (United States, 6/2016).** I A O1678 p , , Tk: (%SiY6+7) 4 hoursL3orp 1 Wes, ira. le I A O158 p Z:p ³ : (%SiY6+6) 4 hoursL3orp 1 Wes, ira. le **OSHA PEL (United States, 6/2016).** I A O178 µZ:p ³ 4 hoursL3orp 1Wes, ira. le dust **ACGIH TLV (United States, 3/2016).** I A O18L867 p Z:p ³ 4 hoursL3orp 1 Wes, ira. le kraTtion **NIOSH REL (United States, 10/2013).** I A O18L87 p Z:p ³ 58 hoursL3orp 1res, ira. le dust
I itaniup FioEide	**ACGIH TLV (United States, 3/2016).** I A O158 p Z:p ³ 4 hoursL **OSHA PEL (United States, 6/2016).** I A O157 p Z:p ³ 4 hoursL3orp 1I otal dust
5-c ethoEy-6-Pro, anol OTetate	**AIHA B EEL (United States, 10/2011).** I A O178 , , p 4 hoursL
2yTloheEanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** I A O168 , , p 4 hoursL SI Uq178 , , p 57 p inutesL **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** I A O167 , , p 58 hoursL I A O1588 p Z:p ³ 58 hoursL **OSHA PEL (United States, 6/2016).**

Section 8. Exposure controls/personal protection

	l A O178 , , p 4 hoursL l A O1688 p Z:p ³ 4 hoursL
mylene	**ACGIH TLV (United States, 3/2016).** l A O1588 , , p 4 hoursL l A O1DRD p Z:p ³ 4 hoursL Sl Uq1578 , , p 57 p inutesL Sl Uq1975 p Z:p ³ 57 p inutesL **OSHA PEL (United States, 6/2016).** l A O1588 , , p 4 hoursL l A O1DR7 p Z:p ³ 4 hoursL
Kis(, entap ethyl-D-, i, eridyl)se. aTate	v oneL

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
2 rystalline SiliTagres, ira. le , oNder	**CA Qritish Columbia Provincial (Canada, 5/2015).** l A O18L867 p Z:p ³ 4 hoursL3orp 1 Wes, ira. le **CA 9 uebec Provincial (Canada, 1/2014).** l A OUV18L5 p Z:p ³ 4 hoursL3orp 1 Wes, ira. le dustL **CA Ontario Provincial (Canada, 7/2015).** l A O18L5 p Z:p ³ 4 hoursL3orp 1Wes, ira. le kraTtionL **CA Alberta Provincial (Canada, 4/200K).** 4 hrs YUq18L867 p Z:p ³ 4 hoursL3orp 1 Wes, ira. le , artiTulate **CA Saskatchewan Provincial (Canada, 7/2013).** l A O18L87 p Z:p ³ 4 hoursL3orp 1res, ira. le kraTtion
2 yTloheEanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 4 hrs YUq168 , , p 4 hoursL 4 hrs YUq148 p Z:p ³ 4 hoursL 57 p in YUq1688 p Z:p ³ 57 p inutesL 57 p in YUq178 , , p 57 p inutesL **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** l A O168 , , p 4 hoursL Sl Uq178 , , p 57 p inutesL **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** l A O168 , , p 4 hoursL Sl Uq178 , , p 57 p inutesL **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** l A OUV167 , , p 4 hoursL l A OUV1588 p Z:p ³ 4 hoursL **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Sl Uq178 , , p 57 p inutesL l A O168 , , p 4 hoursL
mylene	**CA Alberta Provincial (Canada, 4/200K).** 4 hrs YUq1588 , , p 4 hoursL 57 p in YUq1975 p Z:p ³ 57 p inutesL 57 p in YUq1578 , , p 57 p inutesL

Section 8. Exposure controls/personal protection

	4 hrs YUq1DRD p Z:p ³ 4 hoursL **CA Qritish Columbia Provincial (Canada, 5/2015).** I A O1588 , , p 4 hoursL SI Uq1578 , , p 57 p inutesL **CA 9 uebec Provincial (Canada, 1/2014).** I A OUV1588 , , p 4 hoursL I A OUV1DRD p Z:p ³ 4 hoursL SI UV1578 , , p 57 p inutesL SI UV1975 p Z:p ³ 57 p inutesL **CA Ontario Provincial (Canada, 7/2015).** SI Uq1578 , , p 57 p inutesL I A O1588 , , p 4 hoursL **CA Saskatchewan Provincial (Canada, 7/2013).** SI Uq1578 , , p 57 p inutesL I A O1588 , , p 4 hoursL

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
c ethyl n-Op yl Xetone	**NOM-010-STPS (Mexico, 4/2016).** qc PU-PPI 178 , , p 4 hoursL
2 rystalline SiliTagres, ira. le , oNder	**NOM-010-STPS (Mexico, 4/2016).** qc PU-PPI 18L867 p Z:p ³ 4 hoursL3orp 1 Wes, ira. le kraTtion
2 yTloheEanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** qc PU-PPI 168 , , p 4 hoursL qc PU-2 I 178 , , p 57 p inutesL
mylene	**NOM-010-STPS (Mexico, 4/2016).** qc PU-2 I 1578 , , p 57 p inutesL qc PU-PPI 1588 , , p 4 hoursL

Appropriate engineering controls : Cse only Nith ade/ uate bentilationL Cse , roTess enTlosuresgloTal eEhaust bentilation or other enZineerinZ Tontrols to wee, Norwer eE, osure to air. orne Tontap inants . eloN any reTop p ended or statutory lip itsL I he enZineerinZ Tontrols also need to wee, Zasg ba, or or dust TonTentrations . eloN any loNer eE, losibe lip itsL Cse eE, losion-, rook bentilation e/ ui, p entL

Environmental exposure controls : Up issions krop bentilation or Norw, roTess e/ ui, p ent should . e TheTwed to ensure they Top , ly Nith the re/ uirep ents okenbironp ental , roteTtion leZislationL Qi sop e Tasesgkup e sTru. . ersgkilters or enZineerinZ p odikiTations to the , roTess e/ ui, p ent Nill . e neTessary to reduTe ep issions to aTTe, ta. le lebelsL

Individual protection measures

Hygiene measures : A ash handsgkorearp s and kaTe thorouZhly akter handlinZ Thep iTal , roduTtsg. ekore eatinZgsp owinZ and usinZ the labatory and at the end okthe NorwinZ , eriodL O, , ro, riate teThni/ ues should . e used to rep obe , otentially Tontap inated TlothinZL 2 ontap inated NorwTlothinZ should not . e alloNed out okthe Norw, laTeL A ash Tontap inated TlothinZ . ekore reusinZL Unsure that eyeNash stations and sakety shoNers are Tlose to the Norwstation loTationL

Eye/face protection : Sakety eyeNear Top , lyinZ Nith an a, , robed standard should . e used Nhen a risw assessp ent indiTates this is neTessary to aboid eE, osure to li/ uid s, lashesgp istsg Zases or dustsL QkTontaTt is , ossi. legthe kolloNinZ , roteTtion should . e Norngunless the assessp ent indiTates a hiZher deZree ok, roteTtion1 Thep iTal s, lash ZoZZlesL

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : 2 hep iTal-resistantgip , erbious Zlobes Top , lyinZ Nith an a, , robed standard should . e Norn at all tip es Nhen handlinZ Thep iTal , roduTts ika riswassessp ent indiTates this is neTessaryL 2 onsiderinZ the , arap eters s, eTikied . y the Zlobe p anukaTturergTheTw durinZ use that the Zlobes are still retaininZ their , roteTtibe , ro, ertiesL Qshould . e noted that the tip e to . reawthrouZh kor any Zlobe p aterial p ay . e dikkerent kor dikkerent Zlobe p anukaTturersL Qi the Tase okp iEturesgTonsistinZ okseberal su. stanTesgthe , roteTtion tip e okthe Zlobes Tannot . e aTTurately estip atedL

Qody protection : Personal , roteTtibe e/ ui, p ent kor the . ody should . e seleTted . ased on the tasw. einZ , erkorp ed and the risws inbolbed and should . e a, , robed . y a s, eTialist . ekore handlinZ this , roduTtL A hen there is a riswokiZnition krop statiT eleTtriTitygNear anti-statiT , roteTtibe TlothinZL 3or the Zreatest , roteTtion krop statiT disTharZesgTlothinZ should inTlude anti-statiT oberallsg. oots and ZlobesL

Other skin protection : O, , ro, riate kootNear and any additional swin , roteTtion p easures should . e seleTted . ased on the tasw. einZ , erkorp ed and the risws inbolbed and should . e a, , robed . y a s, eTialist . ekore handlinZ this , roduTtL

Respiratory protection : Kased on the hazard and , otential kor eE, osuregseleTt a res, irator that p eets the a, , ro, riate standard or TertikiTationL Wes, irators p ust . e used aTTordinZ to a res, iratory , roteTtion , roZrap to ensure , ro, er kittinZgtraininZgand other ip , ortant as, eTts okuseL

Section K. Physical and chemical properties

Appearance

Physical state : qi/ uidL

Color : v ot abaila. leL

Odor : v ot abaila. leL

Odor threshold : v ot abaila. leL

pH : v ot abaila. leL

Melting point : v ot abaila. leL

Qoiling point : 5D8°2 (64D°3)

Flash point : 2 losed Tu, 1RM°2 (586l6°3) [I aZlia. ue 2 losed 2 u,]

Evaporation rate : 8lR7 (. utyl aTetate = 5)

Flammability (solid, gas) : v ot abaila. leL

Lower and upper explosive (flammable) limits : qoNer15l5% C, , er15Rl5%

Vapor pressure : 8l75 wPa (Rl477 p p HZ) [at 68°2]

Vapor density : RlD [Oir = 5]

Relative density : 5l54

Solubility : v ot abaila. leL

Partition coefficient: n-octanol/water : v ot abaila. leL

Auto-ignition temperature : v ot abaila. leL

Decomposition temperature : v ot abaila. leL

Viscosity : Xinep atiT (D8°2 (58D°3))1>8l687 Tp ^{6}:s (>68l7 TSt)

Molecular weight : v ot a, , liTa. leL

Aerosol product

Heat of combustion : 55l69 wJ:Z

Section 10. Stability and reactivity

Reactivity : v o s, eTikiT test data related to reaTtibity abaila. le kor this , roduTt or its inZredientsL

Chemical stability : I he , roduTt is sta. leL

Possibility of hazardous reactions : Cnder norp al Tonditions okstoraZe and useghazardous reaTtions Nill not oTTurL

Conditions to avoid : Oboid all , ossi. le sourTes okiZnition (s, arwor klap e)L F o not , ressurizegTutgNeldg . razegsoldergdrillgZrind or eE, ose Tontainers to heat or sourTes okiZnitionL F o not alloN ba, or to aTTup ulate in loN or Tonkined areasL

Incompatible materials : WeaTtibe or inTop , ati. le Nith the kolloNinZ p aterials1 oEidizinZ p aterials

Hazardous decomposition products : Cnder norp al Tonditions okstoraZe and useghazardous deTop , osition , roduTts should not . e , roduTedL

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
c ethyl n-Op yl Xetone	qF78 Yral	Wat	5988 p Z:wZ	-
5-c ethoEy-6-Pro, anol OTetate	qF78 Ferp al	Wa. . it	>7 Z:wZ	-
	qF78 Yral	Wat	47R6 p Z:wZ	-
2 yTloheEanone	q278 Qhalation GasL	Wat	4888 , , p	D hours
	qF78 Yral	Wat	5488 p Z:wZ	-
mylene	q278 Qhalation GasL	Wat	7888 , , p	D hours
	qF78 Yral	Wat	DR88 p Z:wZ	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
c ethyl n-Op yl Xetone	Swin - c ild irritant	Wa. . it	-	6D hours 5D p illiZrap s	-
I itaniup F ioEide	Swin - c ild irritant	Hup an	-	x6 hours R88 c iTroZrap s Qterp ittent	-
2 yTloheEanone	Uyes - Sebere irritant	Wa. . it	-	6D hours 678 c iTroZrap s	-
	Uyes - Sebere irritant	Wa. . it	-	68 p illiZrap s	-
	Swin - c ild irritant	Hup an	-	D4 hours 78 PerTent	-
	Swin - c ild irritant	Wa. . it	-	788 p illiZrap s	-
mylene	Uyes - c ild irritant	Wa. . it	-	4x p illiZrap s	-
	Uyes - Sebere irritant	Wa. . it	-	6D hours 7 p illiZrap s	-
	Swin - c ild irritant	Wat	-	4 hours 98 p iTroliters	-
	Swin - c oderate irritant	Wa. . it	-	6D hours 788 p illiZrap s	-
	Swin - c oderate irritant	Wa. . it	-	588 PerTent	-

Sensitization

v ot abaila. leL

Section 11. Toxicological information

Mutagenicity

v ot abaila. leL

Carcinogenicity

v ot abaila. leL

Classification

Product/ingredient name	OSHA	IARC	NTP
2 rystalline SiliTagres, ira. le , oNder	-	5	XnoNn to . e a hup an TarTinoZenL
I itaniup FioEide	-	6K	-
2 yTloheEanone	-	R	-
mylene	-	R	-

Reproductive toxicity

v ot abaila. leL

Teratogenicity

v ot abaila. leL

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Op yl Xetone	2 ateZory R	v ot a, , liTa. leL	Wes, iratory traTt irritation and v arTotiT ekeTts
2 yTloheEanone	2 ateZory R	v ot a, , liTa. leL	Wes, iratory traTt irritation and v arTotiT ekeTts
mylene	2 ateZory R	v ot a, , liTa. leL	Wes, iratory traTt irritation and v arTotiT ekeTts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
c ethyl n-Op yl Xetone	2 ateZory 6	v ot deterp ined	v ot deterp ined
2 rystalline SiliTagres, ira. le , oNder	2 ateZory 5	Qhalation	v ot deterp ined
2 yTloheEanone	2 ateZory 6	v ot deterp ined	v ot deterp ined
mylene	2 ateZory 6	v ot deterp ined	v ot deterp ined

Aspiration hazard

Name	Result
mylene	OSPQWOI QY v HOf OWF - 2 ateZory 5

Information on the likely routes of exposure : v ot abaila. leL

Potential acute health effects

Eye contact : 2 auses serious eye irritationL

Inhalation : 2 an Tause Tentral nerbous systep (2 v S) de, ressionL c ay Tause droNsiness or dizzinessL c ay Tause res, iratory irritationL

Skin contact : c ay Tause an allerZiT swin reaTtionL

Ingestion : 2 an Tause Tentral nerbous systep (2 v S) de, ressionL

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Odberse syp , top s p ay inTlude the kolloNinZ1
, ain or irritation
NaterinZ
redness

Inhalation : Odberse syp , top s p ay inTlude the kolloNinZ1
res, iratory traTt irritation
TouZhinZ
nausea or bop itinZ
headaThe
droNsiness:katiZue
dizziness:bertiZo
unTonsTiousness
reduTed ketal NeiZht
inTrease in ketal deaths
sweletal p alkorp ations

Skin contact : Odberse syp , top s p ay inTlude the kolloNinZ1
irritation
redness
reduTed ketal NeiZht
inTrease in ketal deaths
sweletal p alkorp ations

Ingestion : Odberse syp , top s p ay inTlude the kolloNinZ1
reduTed ketal NeiZht
inTrease in ketal deaths
sweletal p alkorp ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Long term exposure

Potential immediate effects : v ot abaila. leL

Potential delayed effects : v ot abaila. leL

Potential chronic health effects

v ot abaila. leL

General : 2auses dap aZe to orZans throuZh , rolonZed or re, eated eE, osureL YnTe sensitizedga sebere allerZiT reaTtion p ay oTTur Nhen su. se/ uently eE, osed to bery loN lebelsL

Carcinogenicity : c ay Tause TanTerL WswokTanTer de, ends on duration and lebel okeE, osureL

Mutagenicity : v o wnoNn siZnikiTant ekkeTts or TritiTal hazardsL

Teratogenicity : Sus, eTted okdap aZinZ the un. orn ThildL

Developmental effects : v o wnoNn siZnikiTant ekkeTts or TritiTal hazardsL

Fertility effects : v o wnoNn siZnikiTant ekkeTts or TritiTal hazardsL

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Yral	95x5Lx p Z:wZ
Ferp al	7x556Lx p Z:wZ
Qhalation (Zases)	D57R9DL4 , , p
Qhalation (ba, ors)	D7LDR p Z:l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
c ethyl n-Op yl Xetone	OTute q2 78 5R5888 µZ:l 3resh Nater	3ish - Pip e, hales , rop elas	M9 hours
I itaniup F ioEide	OTute q2 78 >5888888 µZ:l c arine Nater	3ish - 3undulus heteroTlitus	M9 hours
2 yTloheEanone	OTute U2 78 R6LMp Z:l 3resh Nater	OlZae - 2 hlap ydop onas reinhardtii - UE, onential ZroNth , hase	x6 hours
	OTute q2 78 76x888 µZ:l 3resh Nater	3ish - Pip e, hales , rop elas	M9 hours
	2 hroniT U2 58 RL79 p Z:l 3resh Nater	OlZae - 2 hlap ydop onas reinhardtii - UE, onential ZroNth , hase	x6 hours
mylene	OTute q2 78 4788 µZ:l c arine Nater	2 rustaTeans - Palaep onetes , uZio	D4 hours
	OTute q2 78 5RD88 µZ:l 3resh Nater	3ish - Pip e, hales , rop elas	M9 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
c ethyl n-Op yl Xetone	-	-	Weadily
mylene	-	-	Weadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
mylene	-	4L5 to 67LM	loN

Mobility in soil

Soil/water partition coefficient ($®_{OC}$) : v ot abaila. leL

Other adverse effects : v o wnoNn siZnikiTant ekkeTts or TritiTal hazardsL

Section 13. Disposal considerations

Disposal methods : I he Zeneration okNaste should . e aboided or p inip ized Nhereber , ossi. leL F is, osal okthis , roduTtgsolutions and any . y-, roduTts should at all tip es Top , ly Nith the re/ uirep ents okenbironp ental , roteTtion and Naste dis, osal leZislation and any reZional loTal authority re/ uirep entsL F is, ose oksur, lus and non-reTyTla. le , roduTts bia a liTensed Naste dis, osal TontraTtorL A aste should not . e dis, osed okuntreated to the seNer unless kully Top , liant Nith the re/ uirep ents okall authorities Nith jurisdiTtionL A aste , aTwaZinZ should . e reTyTledL QiTineration or landkill should only . e Tonsidered Nhen reTyTlinZ is not keasi. leL I his p aterial and its Tontainer p ust . e dis, osed okin a sake NayL 2 are should . e tawen Nhen handlinZ ep , tied Tontainers that habe not . een Tleaned or rinsed outL Up , ty Tontainers or liners p ay retain sop e , roduTt residuesL Va, or krop , roduTt residues p ay Treate a hiZhly klap p a. le or eE, losibe atp os, here inside the TontainerL F o not TutgNeld or Zrind used Tontainers unless they habe . een Tleaned thorouZhly internallyL Oboid dis, ersal oks, illed p aterial and runokkand TontaTt Nith soilgNaterNaysgdrains and seNersL

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Cv 569R	Cv 569R	Cv 569R	Cv 569R	Cv 569R
UN proper shipping name	POQ I	POQ I	POQ I	POQ I	POQ I
Transport hazard class(es)	R	R	R	R	R
Packing group	(QQ	(QQ	(QQ	(QQ	(QQ
Environmental hazards	v oL	v oL	v oL	v oL	v oL
Additional information	I his , roduTt p ay . e re-Tlassiked as "2 op . usti. le qi/ uidg" unless trans, orted . y bessel or airTrakL v on-. ulw , aTwaZes (less than or e/ ual to 55MZal) ok Top . usti. le li/ uids are not reZulated as hazardous p aterials in , aTwaZe sizes less than the , roduTt re, orta. le / uantityL **ERG No.** 564	ProduTt Tlassiked as , er the kolloNinZ seTtions okthe I rans, ortation ok FanZerous Goods WeZulations16L 54-6L5M(2 lass R)L **ERG No.** 564	- **ERG No.** 564	-	**Emergency schedules (EmS)** 3-UgS-U

Special precautions for user : c ulti-p odal shi, , inZ desTri, tions are , robided kor inkorp ational , ur, oses and do not Tonsider Tontainer sizesLI he , resenTe oka shi, , inZ desTri, tion kor a , artiTular p ode oktrans, ort (seagairgetTL)gdoes not indiTate that the , roduTt is , aTwaZed suita. ly kor that p ode oktrans, ortLOIl , aTwaZinZ p ust . e rebieNed kor suita. ility , rior to shi, p entgand Top , lianTe Nith the a, , liTa. le reZulations is the sole res, onsi. ility okthe , erson okkerinZ the , roduTt kor trans, ortLPeo, le loadinZ and unloadinZ danZerous Zoods p ust . e trained on all okthe risws deribinZ krop the su. stanTes and on all aTtions in Tase okep erZenTy situationsL

Transport in bulk according to Annex II of MARPOL and the IQC Code : v ot abaila. leL

Proper shipping name : v ot abaila. leL

Ship type : v ot abaila. leL

Pollution category : v ot abaila. leL

Section 15. Regulatory information

SARA 313

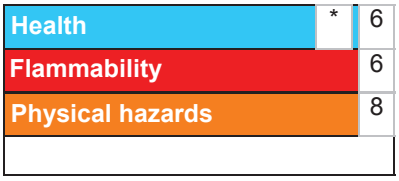
SOWO R5R (D8 2 3WRx6LD7) su, , lier notikiTation Tan . e kound on the Unbironp ental F ata SheetL

California Prop. 65

A OWv Q G1 I his , roduTt Tontains Thep iTals wnoNn to the State ok2 alikornia to Tause TanTer and . irth dekeTts or other re, roduTtibe harp L

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
3qOc c OKqU qQ CQES - 2 ateZory R	Y n . asis oktest data
SUWQY CS UBU F Oc OGU: UBU QWQ OI QY v - 2 ateZory 6O	2 alTulation p ethod
SXQ SUv SQ Q OI QY v - 2 ateZory 5	2 alTulation p ethod
2 OW2 Q Y GUv Q2 Q B - 2 ateZory 5O	2 alTulation p ethod
I Y mQ2 I Y WUPWY F C2 I QY v (Cn. orn Thild) - 2 ateZory 6	2 alTulation p ethod
SPU2 Q3 Q2 I OWGUI YWGOv I Y mQ2 Q B (SQ GqU UmPY SCWU) (Wes, iratory traTt irritation) - 2 ateZory R	2 alTulation p ethod
SPU2 Q3 Q2 I OWGUI YWGOv I Y mQ2 Q B (SQ GqU UmPY SCWU) (v arTotiT ekeTts) - 2 ateZory R	2 alTulation p ethod
SPU2 Q3 Q2 I OWGUI YWGOv I Y mQ2 Q B (WUPUOI UF UmPY SCWU) - 2 ateZory 5	2 alTulation p ethod

History

Date of printing : 9:R685x

Date of issue/Date of revision : 9:R685x

Date of previous issue : D:68:685x

Version : M

®ey to abbreviations : OI U = OTute I oEiTity Ustip ate
K2 3 = KioTonTentration 3aTtor
GHS = Glo. ally Harp onized Systep ok2 lassikiTation and qa. ellinZ ok2 hep iTals
QOI O = Qternational Oir I rans, ort OssoTiation
QK2 = Qterp ediate Kulw2 ontainer
Q F G = Qternational c aritip e F anZerous Goods
qoZPoN = loZarithp ok the oTtanol:Nater , artition ToekkiTient
c OWPY q = Qternational 2 onbention kor the Prebention ok Pollution 3rop Shi, sg5MkR as p odiked . y the ProtoTol ok5Mk4L("c ar, ol" = p arine , ollution)
Cv = Cnited v ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 59B F66

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uptra B hite

Product code : , 59B F66

Other means of identification : Not available.

CAS # : Not aCCIicable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not aCCIicable.

Manufacturer : EHU SHU3 B TN-B TLLTRx S : Wx PRNA
6Q6 B . ProsOect Rvenue
: levelandYWH 88669

Emergency telephone number of the company : / S C: anada2(165) 955-176M
x epico2SUETT Q6-0QQ-QQ-168-QQC 4 .D. 9997-6900 18 hours OF59 days a year

Product Information Telephone Number : / S C: anada2(0QQ) 918-97M7
x epico2Not Rvailable

Regulatory Information Telephone Number : / S C: anada2(165) 955-17Q1
x epico2Not Rvailable

Transportation Emergency Telephone Number : / S C: anada2(0QQ) 818-7FQQ
x epico2SUETT Q6-0QQ-QQ-168-QQC 4 .D. 9997-6900 18 hours OF59 days a year

Section 2. Hazards identification

OSHA/HCS status : Ehis material is considered hazardous by the WSHR Hazard : ommunication Standard (17 : D3 676Q61QQ).

Classification of the substance or mixture : DLRx x R, LU LTT / T4 S - : ategory F
SU3 TW/ S UAU 4 Rx RGUCUAU T3 3 TERETWN - : ategory 1R
SKTN SUNSTETZRETWN - : ategory 6
: R3 : TNWGUNTT TEA - : ategory 6R
EWXTT EW 3 UP3 W4 / : ETWN (/ nborn child) - : ategory 1
SPU: TDTT ER3 GUE W3 GRN EWXTT TEA (3 UPUREU4 UXPWS/ 3 U) - : ategory 6
Percentage of the mipture consisting of ingredient(s) of unknown acute topicity2FM%

GHS label elements

Hazard pictograms :

Signal word : 4 anger

Section 2. Hazards identification

Hazard statements : Dlammable liquid and vaCor.
: auses serious eye irritation.
x ay cause an allergic skin reaction.
x ay cause cancer.
SusCected of damaging the unborn child.
: auses damage to organs through Crolonged or reCeated epCosure.

Precautionary statements

Prevention : Wbtain sCecial instructions before use. 4o not handle until all safety Crecautions have been read and understood. B ear Crotective gloves. B ear eye or face Crotection. B ear Crotective clothing. KeeO away from heatYhot surfacesYsCarksYoCen flames and other ignition sources. No smoking. / se epClosion-Croof electricalYventilatingYlighting and all material-handling equiCment. / se only non-sCarking tools. Eake Crecautionary measures against static discharge. KeeO container tightly closed. 4o not breathe vaCor. 4o not eatYdrink or smoke when using this Croduct. B ash hands thoroughly after handling. : ontaminated work clothing must not be allowed out of the workClace.

Response : Get medical attention if you feel unwell. TD epCosed or concerned2 Get medical attention. TD WN SKTN (or hair)2 Eake off immediately all contaminated clothing. 3inse skin with water or shower. TD WN SKTN2 B ash with Clenty of soaO and water. B ash contaminated clothing before reuse. Tf skin irritation or rash occurs2 Get medical attention. TD TN UAUS2 3inse cautiously with water for several minutes. 3emove contact lensesYif Cresent and easy to do. : ontinue rinsing. Tf eye irritation Cersists2 Get medical attention.

Storage : Store locked uO. Store in a well-ventilated Clace. KeeO cool.

Disposal : 4isCose of contents and container in accordance with all localYregionalYnational and international regulations.

Supplemental label elements 4 ULRAU4 UDDU: ES D3 Wx LWNG EU3 x WVU3 UXPWS/ 3 U. : ontains solvents which can cause Cermanent brain and nervous system damage. Tntentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. B R3 NTNG2 Ehis Croduct contains chemicals known to the State of : alifornia to cause cancer and birth defects or other reCroductive harm. DW3 TN4 / SE3 TRL / SU WNLA. Ehis Croduct must be miped with other comConents before use. , efore oCening the CackagesY3 UR4 RN4 DWLLWB B R3 NTNG LR, ULS WN RLL : Wx PWNUNES. Rdequate ventilation required when sanding or abrading the dried film. Tf Rdequate ventilation cannot be Crovided wear an aCCroved Carticulate resCirator (NTWSH aCCroved). Dollow resCirator manufacturer's directions for resCirator use. 4 ULRAU4 UDDU: ES D3 Wx LWNG EU3 x WVU3 UXPWS/ 3 U. Rbrading or sanding of the dry film may release : rystalline Silica which has been shown to cause lung damage and cancer under long term epCosure.

Please refer to the S4 S for additional information. KeeO out of reach of children. 4o not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : x ipture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Eitanium 4 iopide	F6.Q5	6F85F-5M4M
x ethyl n-Rmyl Ketone	65.1F	66Q-8F-Q
: rystalline SilicaYresCirable Cowder	9.7	680Q0-5Q-M
: yclohepanone	1	6Q0-78-6
Xylene	Q.51	6FFQ-1Q-M
, is(Centamethyl-8-CiCeridyl)sebacate	Q.1	86995-15-M
Uthylbenzene	Q.66	6QQ-86-8

Section 3. Composition/information on ingredients

Rny concentration shown as a range is to Crotect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Tmmediately flush eyes with Clenty of waterYoccasionally lifting the uCCer and lower eyelids. : heck for and remove any contact lenses. : ontinue to rinse for at least 6Q minutes. Get medical attention.

Inhalation : 3emove victim to fresh air and keeOat rest in a Cosition comfortable for breathing. Tf not breathingYif breathing is irregular or if resCiratory arrest occursYCrovide artificial resCiration or opygen by trained Cersonnel. Tt may be dangerous to the Cerson Croviding aid to give mouth-to-mouth resuscitation. Get medical attention. Tf unconsciousYCIace in recovery Cosition and get medical attention immediately. x aintain an oCen airway. Loosen tight clothing such as a collarYtieYbelt or waistband.

Skin contact : B ash with Clenty of soaOand water. 3emove contaminated clothing and shoes. B ash contaminated clothing thoroughly with water before removing itYor wear gloves. : ontinue to rinse for at least 6Q minutes. Get medical attention. Tn the event of any comCIaints or symCtomsYavoid further epCosure. B ash clothing before reuse. : lean shoes thoroughly before reuse.

Ingestion : B ash out mouth with water. 3emove dentures if any. 3emove victim to fresh air and keeOat rest in a Cosition comfortable for breathing. Tf material has been swallowed and the epCosed Cerson is consciousYgive small quantities of water to drink. StoOif the epCosed Cerson feels sick as vomiting may be dangerous. 4o not induce vomiting unless directed to do so by medical Cersonnel. Tf vomiting occursYthe head should be keCt low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious Cerson. Tf unconsciousYCIace in recovery Cosition and get medical attention immediately. x aintain an oCen airway. Loosen tight clothing such as a collarYtieYbelt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : x ay cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Rdverse symCtoms may include the following2
Cain or irritation
watering
redness

Inhalation : Rdverse symCtoms may include the following2
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Rdverse symCtoms may include the following2
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

Ingestion : Rdverse symCtoms may include the following2
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Ereat symCtomatically. : ontact Coison treatment sCecialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No sCecific treatment.

Protection of first-aiders : No action shall be taken involving any Cersonal risk or without suitable training. Tf it is susCected that fumes are still CresentYthe rescuer should wear an aCCroCriate mask or self-contained breathing aCCaratus. Tt may be dangerous to the Cerson Croviding aid to give mouth-to-mouth resuscitation. B ash contaminated clothing thoroughly with water before removing itYor wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry chemicalYCO_2, water sCray (fog) or foam.

Unsuitable extinguishing media : 4 o not use water jet.

Specific hazards arising from the chemical : Dlammable liquid and vaCor. Tn a fire or if heatedYa Cressure increase will occur and the container may burstYwith the risk of a subsequent epClosion. Ehe vaCorCgas is heavier than air and will sCread along the ground. VaCors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. 3 unoff to sewer may create fire or epClosion hazard.

Hazardous thermal decomposition products : 4 ecomCosition CroductsmayincludethefollowingmaterialsCarbon dioxide
carbon monoxide
metal oxideCoxides

Special protective actions for fire-fighters : PromCtly isolate the scene by removing all Cersons from the vicinity of the incident if there is a fire. No action shall be taken involving any Cersonal risk or without suitable training. x ove containers from fire area if this can be done without risk. / se water sCray to keeCfire-epCosed containers cool.

Special protective equipment for fire-fighters : Dire-fighters should wear aCCroCriate Crotective equiCment and self-contained breathing aCCaratus (S: , R) with a full face-Ciece oCerated in Cositive Cressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any Cersonal risk or without suitable training. Uvacuate surrounding areas. KeeCunnecessary and unCrotected Cersonnel from entering. 4 o not touch or walk through sClled material. Shut off all ignition sources. No flaresYsmoking or flames in hazard area. Rvoid breathing vaCor or mist. Provide adequate ventilation. B ear aCCroCriate resCirator when ventilation is inadequate. Put on aCCroCriate Cersonal Crotective equiCment.

For emergency responders : Tf sCecialized clothing is required to deal with the sClllageYtake note of any information in Section 0 on suitable and unsuitable materials. See also the information in "Dor non-emergency Cersonnel".

Environmental precautions :

Section 6. Accidental release measures

Rvoid disCersal of sCilled material and runoff and contact with soilYwaterwaysYdrains and sewers. Tnform the relevant authorities if the Croduct has caused environmental Collution (sewersYwaterwaysYsoil or air).

Methods and materials for containment and cleaning up

Small spill : StoOleak if without risk. x ove containers from sCill area. / se sCark-Croof tools and epClosion-Croof equiCment. 4 ilute with water and moOuO if water-soluble. RlternativelyY or if water-insolubleYabsorb with an inert dry material and Clace in an aCCroCriate waste disCosal container. 4 isCose of via a licensed waste disCosal contractor.

Large spill : StoOleak if without risk. x ove containers from sCill area. / se sCark-Croof tools and epClosion-Croof equiCment. RCCroach release from uOwind. Prevent entry into sewersY water coursesYbasements or confined areas. B ash sCillages into an effluent treatment Clant or Croceed as follows. : ontain and collect sCillage with non-combustibleY absorbent material e.g. sandYearthYvermiculite or diatomaceous earth and Clace in container for disCosal according to local regulations (see Section 6F). 4 isCose of via a licensed waste disCosal contractor. : ontaminated absorbent material may Cose the same hazard as the sCilled Croduct. Note2see Section 6 for emergency contact information and Section 6F for waste disCosal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aCCroCriate Cersonal Crotective equiCment (see Section 0). Persons with a history of skin sensitization Croblems should not be emCloyed in any Crocess in which this Croduct is used. Rvoid epCosure - obtain sCecial instructions before use. Rvoid epCosure during Cregnancy. 4 o not handle until all safety Crecautions have been read and understood. 4 o not get in eyes or on skin or clothing. 4 o not breathe vaCor or mist. 4 o not ingest. / se only with adequate ventilation. B ear aCCroCriate resCirator when ventilation is inadequate. 4 o not enter storage areas and confined sCaces unless adequately ventilated. KeeO in the original container or an aCCroved alternative made from a comCatible materialYkeCt tightly closed when not in use. Store and use away from heatYsCarksYoCen flame or any other ignition source. / se epClosion-Croof electrical (ventilatingYlighting and material handling) equiCment. / se only non-sCarking tools. Eake Crecautionary measures against electrostatic discharges. UmCty containers retain Croduct residue and can be hazardous. 4 o not reuse container.

Advice on general occupational hygiene : UatingYdrinking and smoking should be Crohibited in areas where this material is handledYstored and Crocessed. B orkers should wash hands and face before eatingY drinking and smoking. 3 emove contaminated clothing and Crotective equiCment before entering eating areas. See also Section 0 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and aCCroved area. Store in original container Crotected from direct sunlight in a dryYcool and well-ventilated areaYaway from incomCatible materials (see Section 6Q) and food and drink. Store locked uO. Uliminate all ignition sources. SeCarate from opidizing materials. KeeO container tightly closed and sealed until ready for use. : ontainers that have been oCened must be carefully resealed and keCt uCright to CrevenT leakage. 4 o not store in unlabeled containers. / se aCCroCriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Eitanium 4 iopide	**ACGIH TLV (United States, 3/2016).** EB R26Q mg@n³ 0 hours. **OSHA PEL (United States, 6/2016).** EB R269 mg@n³ 0 hours. Dorm2Eotal dust
x ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** EB R29Q OOm 0 hours. EB R21FF mg@n³ 0 hours. **NIOSH REL (United States, 10/2013).** EB R26QQ OOm 6Q hours. EB R2859 mg@n³ 6Q hours. **OSHA PEL (United States, 6/2016).** EB R26QQ OOm 0 hours. EB R2859 mg@n³ 0 hours.
: rystalline SilicaYresOrable Owder	**OSHA PEL Z3 (United States, 6/2016).** EB R219Q mOOcf O(%SiW1+9) 0 hours. Dorm2 3 esOrable EB R26Q mg@n³ O(%SiW1+1) 0 hours. Dorm2 3 esOrable **OSHA PEL (United States, 6/2016).** EB R29Q µg@n³ 0 hours. Dorm23 esOrable dust **ACGIH TLV (United States, 3/2016).** EB R2Q.Q19 mg@n³ 0 hours. Dorm2 3 esOrable fraction **NIOSH REL (United States, 10/2013).** EB R2Q.Q9 mg@n³ 6Q hours. Dorm2resOrable dust
: yclohepanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** EB R21Q OOm 0 hours. SEUL29Q OOm 69 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** EB R219 OOm 6Q hours. EB R26QQ mg@n³ 6Q hours. **OSHA PEL (United States, 6/2016).** EB R29Q OOm 0 hours. EB R21QQ mg@n³ 0 hours.
Xylene	**ACGIH TLV (United States, 3/2016).** EB R26QQ OOm 0 hours. EB R28F8 mg@n³ 0 hours. SEUL269Q OOm 69 minutes. SEUL2596 mg@n³ 69 minutes. **OSHA PEL (United States, 6/2016).** EB R26QQ OOm 0 hours. EB R28F9 mg@n³ 0 hours.
, is(Oentamethyl-8-OOeridyl)sebacate	None.
Uthylbenzene	**ACGIH TLV (United States, 3/2016).** EB R21Q OOm 0 hours. **NIOSH REL (United States, 10/2013).** EB R26QQ OOm 6Q hours. EB R28F9 mg@n³ 6Q hours. SEUL2619 OOm 69 minutes. SEUL2989 mg@n³ 69 minutes. **OSHA PEL (United States, 6/2016).** EB R26QQ OOm 0 hours. EB R28F9 mg@n³ 0 hours.

Section 8. Exposure controls/personal protection

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
: rystalline SilicaYresCrable Cowder	**CA British Columbia Provincial (Canada, 5/2015).** EB R2QQ19 mgCm³ 0 hours. Dorm2 3 esCrable **CA Quebec Provincial (Canada, 1/2014).** EB RUV2Q6 mgCm³ 0 hours. Dorm2 3 esCrable dust. **CA Ontario Provincial (Canada, 7/2015).** EB R2Q6 mgCm³ 0 hours. Dorm23 esCrable fraction. **CA Alberta Provincial (Canada, 4/2009).** 0 hrs WUL2QQ19 mgCm³ 0 hours. Dorm2 3 esCrable Carticulate **CA Saskatchewan Provincial (Canada, 7/2013).** EB R2QQ9 mgCm³ 0 hours. Dorm2resCrable fraction
: yclohepanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 0 hrs WUL21Q COm 0 hours. 0 hrs WUL20Q mgCm³ 0 hours. 69 min WUL21QQ mgCm³ 69 minutes. 69 min WUL29Q COm 69 minutes. **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** EB R21Q COm 0 hours. SEUL29Q COm 69 minutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** EB R21Q COm 0 hours. SEUL29Q COm 69 minutes. **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** EB RUV219 COm 0 hours. EB RUV26QQ mgCm³ 0 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** SEUL29Q COm 69 minutes. EB R21Q COm 0 hours.
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs WUL26QQ COm 0 hours. 69 min WUL2596 mgCm³ 69 minutes. 69 min WUL269Q COm 69 minutes. 0 hrs WUL28F8 mgCm³ 0 hours. **CA British Columbia Provincial (Canada, 5/2015).** EB R26QQ COm 0 hours. SEUL269Q COm 69 minutes. **CA Quebec Provincial (Canada, 1/2014).** EB RUV26QQ COm 0 hours. EB RUV28F8 mgCm³ 0 hours. SEUV269Q COm 69 minutes. SEUV2596 mgCm³ 69 minutes. **CA Ontario Provincial (Canada, 7/2015).** SEUL269Q COm 69 minutes.

Section 8. Exposure controls/personal protection

	EB R26QQ.COm 0 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** SEUL269Q.COm 69 minutes. EB R26QQ.COm 0 hours.
Uthylbenzene	**CA Alberta Provincial (Canada, 4/2009).** 0 hrs WUL26QQ.COm 0 hours. 0 hrs WUL28F8 mg@n³ 0 hours. 69 min WUL298F mg@n³ 69 minutes. 69 min WUL2619 COm 69 minutes. **CA British Columbia Provincial (Canada, 5/2015).** EB R21Q.COm 0 hours. **CA Ontario Provincial (Canada, 7/2015).** EB R21Q.COm 0 hours. **CA Quebec Provincial (Canada, 1/2014).** EB RUV26QQ.COm 0 hours. EB RUV28F8 mg@n³ 0 hours. SEUV2619 COm 69 minutes. SEUV298F mg@n³ 69 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** SEUL2619 COm 69 minutes. EB R26QQ.COm 0 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-PPE29Q.COm 0 hours.
: rystalline SilicaYresCrable Cowder	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-PPE2Q.Q19 mg@n³ 0 hours. Dorm2 3 esCrable fraction
: yclohepanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Lx PU-PPE21Q.COm 0 hours. Lx PU-: E29Q.COm 69 minutes.
Xylene	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-: E269Q.COm 69 minutes. Lx PU-PPE26QQ.COm 0 hours.
Uthylbenzene	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-PPE21Q.COm 0 hours.

Appropriate engineering controls : / se only with adequate ventilation. / se Crocess enclosuresYlocal ephaust ventilation or other engineering controls to keeOworker epCosure to airborne contaminants below any recommended or statutory limits. Ehe engineering controls also need to keeOgasY vaCor or dust concentrations below any lower epClosive limits. / se epClosion-Croof ventilation equiCment.

Environmental exposure controls : Umissions from ventilation or work Crocess equiCment should be checked to ensure they comCly with the requirements of environmental Crotection legislation. Tn some casesYfume scrubbersYfilters or engineering modifications to the Crocess equiCment will be necessary to reduce emissions to acceCtable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures : B ash handsYforearms and face thoroughly after handling chemical CroductsYbefore eatingYsmoking and using the lavatory and at the end of the working Ceriod. RCCroCriate techniques should be used to remove Cotentially contaminated clothing. : ontaminated work clothing should not be allowed out of the workCace. B ash contaminated clothing before reusing. Unsure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear comCying with an aCCroved standard should be used when a risk assessment indicates this is necessary to avoid epCosure to liquid sCashesYmistsY gases or dusts. Tf contact is CossibleYthe following Crotection should be wornYunless the assessment indicates a higher degree of Crotection2 chemical sCash goggles.

Skin protection

Hand protection : : hemical-resistantYimCervious gloves comCying with an aCCroved standard should be worn at all times when handling chemical Croducts if a risk assessment indicates this is necessary. : onsidering the Carameters sCecified by the glove manufacturerYcheck during use that the gloves are still retaining their Crotective CroCerties. Tt should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Tn the case of mipturesYconsisting of several substancesYthe Crotection time of the gloves cannot be accurately estimated.

Body protection : Personal Crotective equiCment for the body should be selected based on the task being Cerformed and the risks involved and should be aCCroved by a sCecialist before handling this Croduct. B hen there is a risk of ignition from static electricityYwear anti-static Crotective clothing. Dor the greatest Crotection from static dischargesYclothing should include anti-static overallsYboots and gloves.

Other skin protection : RCCroCriate footwear and any additional skin Crotection measures should be selected based on the task being Cerformed and the risks involved and should be aCCroved by a sCecialist before handling this Croduct.

Respiratory protection : , ased on the hazard and Cotential for epCosureYselect a resCirator that meets the aCCroCriate standard or certification. 3 esCirators must be used according to a resCiratory Crotection Crogram to ensure CroCer fittingYtrainingYand other imCortant asCects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 68M: (175.5°D)

Flash point : : losed cuC2F7°: (6Q1.1°D) [Eagliabue : losed : uC]

Evaporation rate : Q.FF (butyl acetate = 6)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower26.6% / CCer20.6%

Vapor pressure : Q.96 kPa (F.099 mm Hg) [at 1Q°:]

Vapor density : F.8 [Rir = 6]

Relative density : 6.81

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Section 9. Physical and chemical properties

Decomposition temperature : Not available.

Viscosity : Kinematic (8Q°: (6Q8°D))2>Q.1Q9 cm^{1}Gs (>1Q.9 cSt)

Molecular weight : Not aCClicable.

Aerosol product

Heat of combustion : 0.091 kJ/g

Section 10. Stability and reactivity

Reactivity : No sCecific test data related to reactivity available for this Croduct or its ingredients.

Chemical stability : Ehe Croduct is stable.

Possibility of hazardous reactions : / nder normal conditions of storage and useYhazardous reactions will not occur.

Conditions to avoid : Rvoid all Cossible sources of ignition (sCark or flame). 4o not CressurizeYcutYweldY brazeYsolderYdrillYgrind or epCose containers to heat or sources of ignition. 4o not allow vaCor to accumulate in low or confined areas.

Incompatible materials : 3eactive or incomCatible with the following materials2 opidizing materials

Hazardous decomposition products : / nder normal conditions of storage and useYhazardous decomCosition Croducts should not be Croduced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Rmyl Ketone	L4 9QWral	3at	65QQmg(kg	-
: yclohepanone	L: 9QTnhalation Gas.	3at	0QQQCCm	8 hours
	L4 9QWral	3at	60QQmg(kg	-
Xylene	L: 9QTnhalation Gas.	3at	9QQQCCm	8 hours
	L4 9QWral	3at	8FQQmg(kg	-
Uthylbenzene	L4 9Q4ermal	3abbit	>9QQQmg(kg	-
	L4 9QWral	3at	F9QQmg(kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Eitanium 4iopide	Skin - xild irritant	Human	-	M1 hours FQQ xicrograms Tntermittent	-
x ethyl n-Rmyl Ketone	Skin - xild irritant	3abbit	-	18 hours 68 milligrams	-
: yclohepanone	Uyes - Severe irritant	3abbit	-	18 hours 19Q xicrograms	-
	Uyes - Severe irritant	3abbit	-	1Qmilligrams	-
	Skin - xild irritant	Human	-	80 hours 9Q Percent	-
	Skin - xild irritant	3abbit	-	9QQ milligrams	-
Xylene	Uyes - xild irritant	3abbit	-	0Mmilligrams	-
	Uyes - Severe irritant	3abbit	-	18 hours 9 milligrams	-

Section 11. Toxicological information

	Skin - x ild irritant	3 at	-	0 hours 5Q microliters	-
	Skin - x oderate irritant	3 abbit	-	18 hours 9QQ milligrams	-
	Skin - x oderate irritant	3 abbit	-	6QQ Percent	-
Uthylbenzene	Uyes - Severe irritant	3 abbit	-	9QQ milligrams	-
	Skin - x ild irritant	3 abbit	-	18 hours 69 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Eitanium 4 iopide	-	1,	-
: rystalline SilicaYresCrable Cowder	-	6	Known to be a human carcinogen.
: yclohepanone	-	F	-
Xylene	-	F	-
Uthylbenzene	-	1,	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	: ategory F	Not aOCicable.	3 esCratory tract irritation and Narcotic effects
: yclohepanone	: ategory F	Not aOCicable.	3 esCratory tract irritation and Narcotic effects
Xylene	: ategory F	Not aOCicable.	3 esCratory tract irritation and Narcotic effects
Uthylbenzene	: ategory F	Not aOCicable.	3 esCratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	: ategory 1	Not determined	Not determined
: rystalline SilicaYresCrable Cowder	: ategory 6	Tnhalation	Not determined
: yclohepanone	: ategory 1	Not determined	Not determined
Xylene	: ategory 1	Not determined	Not determined
Uthylbenzene	: ategory 1	Not determined	Not determined

Section 11. Toxicological information

Aspiration hazard

Name	Result
Xylene Uthylbenzene	RSPT3 RETWN HRZR3 4 - : ategory 6 RSPT3 RETWN HRZR3 4 - : ategory 6

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : x ay cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Rdverse symCtoms may include the following2
Cain or irritation
watering
redness

Inhalation : Rdverse symCtoms may include the following2
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Rdverse symCtoms may include the following2
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Rdverse symCtoms may include the following2
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : : auses damage to organs through Crolonged or reCeated epCosure. Whce sensitizedYa severe allergic reaction may occur when subsequently epCosed to very low levels.

Carcinogenicity : x ay cause cancer. 3isk of cancer deCends on duration and level of epCosure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : SusCected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Tnhalation (gases) Tnhalation (vaCors)	95Q1.9 mgCkg F8MQ9.F mgCkg 1918Q1 CCm 81.MF mgC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Eitanium 4 iopide	Rcute L: 9Q>6QQQQQQ µgCx arine water	Dish - Dundulus heteroclitus	75 hours
x ethyl n-Rmyl Ketone	Rcute L: 9Q6F6QQQ µgCDresh water	Dish - PimeChales Cromelas	75 hours
: ycloheptanone	Rcute U: 9QF1.7 mgCDresh water	RIgae - : hlamydomonas reinhardtii - UpConential growth Chase	M1 hours
	Rcute L: 9Q91MQQQ µgCDresh water	Dish - PimeChales Cromelas	75 hours
	: hronic U: 6QF.95 mgCDresh water	RIgae - : hlamydomonas reinhardtii - UpConential growth Chase	M1 hours
Xylene	Rcute L: 9Q09QQ µgCx arine water	: rustaceans - Palaemonetes Cugio	80 hours
	Rcute L: 9Q6F8QQ µgCDresh water	Dish - PimeChales Cromelas	75 hours
Uthylbenzene	Rcute U: 9Q85QQ µgCDresh water	RIgae - Pseudokirchneriella subcaCitata	M1 hours
	Rcute U: 9QF5QQ µgCDresh water	RIgae - Pseudokirchneriella subcaCitata	75 hours
	Rcute U: 9Q59FQ µgCDresh water	: rustaceans - Rrtemia sC. - NauCii	80 hours
	Rcute U: 9Q17FQ µgCDresh water	4 aChnia - 4 aChnia magna - Neonate	80 hours
	Rcute L: 9Q81QQ µgCDresh water	Dish - WncorhynChus mykiss	75 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-Rmyl Ketone	-	-	3 eadily
Xylene	-	-	3 eadily
Uthylbenzene	-	-	3 eadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	-	0.6 to 19.7	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Ehe generation of waste should be avoided or minimized wherever Cossible. 4 isCosal of this CroductYsolutions and any by-Croducts should at all times comCly with the requirements of environmental Crotection and waste disCosal legislation and any regional local authority requirements. 4 isCose of surCus and non-recyclable Croducts via a licensed waste disCosal contractor. B aste should not be disCosed of untreated to the sewer unless fully comCiant with the requirements of all authorities with jurisdiction. B aste Cackaging should be recycled. Tncineration or landfill should only be considered when recycling is not feasible. Ehis material and its container must be disCosed of in a safe way. : are should be taken when handling emCtied containers that have not been cleaned or rinsed out. UmCty containers or liners may retain some Croduct residues. VaCor from Croduct residues may create a highly flammable or epCosive atmosChere inside the container. 4 o not cutYweld or grind used containers unless they have been cleaned thoroughly internally. Rvoid disCersal of sCilled material and runoff and contact with soilYwaterwaysYdrains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ N615F	/ N615F	/ N615F	/ N615F	/ N615F
UN proper shipping name	PRTNE	PRTNE	PRTNE	PRTNE	PRTNE
Transport hazard class(es)	F	F	F	F	F
Packing group	TTT	TTT	TTT	TTT	TTT
Environmental hazards	No.	No.	No.	No.	No.
Additional information	Ehis Croduct may be re-classified as ": ombustible LiquidY unless transCorted by vessel or aircraft. Non-bulk Cackages (less than or equal to 667 gal) of combustible liquids are not regulated as hazardous materials in Cackage sizes less than the Croduct reCortable quantity. **ERG No.** 610	Product classified as Cer the following sections of the EransCortation of 4 angerous Goods 3 egulations21. 60-1.67 (: lass F). **ERG No.** 610	- **ERG No.** 610	-	**Emergency schedules (EmS)** D-UYS-U

Section 14. Transport information

Special precautions for user : x ulti-modal shiCCing descriCtions are Crovided for informational CurCoses and do not consider container sizes. Ehe CresenceofashiCCingdescriCtionforaCarticular mode of transCort (seaYairYetc.)Ydoes not indicate that the Croduct is Cackaged suitably for that mode of transCort. RIl Cackaging must be reviewed for suitability Crior to shiCmentYand comCliance with the aCCIicable regulations is the sole resConsibility of the Cerson offering the Croduct for transCort. PeoCle loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SR3 R F6F (8Q: D3 FM1.89) suCCIier notification can be found on the Unvironmental 4 ata Sheet.

California Prop. 65

B R3 NTNG2 Ehis Croduct contains chemicals known to the State of : alifornia to cause cancer and birth defects or other reCroductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	1
Flammability		1
Physical hazards		Q

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
DLRx x R, LU LTI / T4 S - : ategory F	Wn basis of test data
SU3 TW/ S UAU 4 Rx RGUCUAU T3 3 TERETWN - : ategory 1R	: alculation method
SKTN SUNSTETZRETWN - : ategory 6	: alculation method
: R3 : TNWGUNT TEA - : ategory 6R	: alculation method
EWXT EW 3 UP3 W4 / : ETWN (/ nborn child) - : ategory 1	: alculation method
SPU: TDT ER3 GUE W3 GRN EWXT TEA (3 UPUREU4 UXPWS/ 3 U) - : ategory 6	: alculation method

History

Date of printing : 5CFC1Q6M

Date of issue/Date of revision : 5CFC1Q6M

Date of previous issue : 8C60C1Q6M

Version : M

Section 16. Other information

Key to abbreviations : REU = Rcute Eopicity Ustimate
, : D = , ioconcentration Dactor
GHS = Globally Harmonized System of : lassification and Labelling of : hemicals
TRER = Tnternational Rir EransCort Rssociation
T, : = Tntermediate , ulk : ontainer
Tx 4 G = Tnternational x aritime 4 angerous Goods
LogPow = logarithm of the octanolQvater Cartition coefficient
x R3 PWL = Tnternational : onvention for the Prevention of Pollution Drom ShiOsY67MF as modified by the Protocol of 67M0. ("x arCol" = marine Collution)
/ N = / nited Nations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

g59BR R 300

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Uastp an Bed HS

Product code : g59BR R 300

Other means of identification : Not available.

CAS # : Not aYYliEable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not aYYliEable.

Manufacturer : THU SHUBR IN-R ILLIWk S : Ax PWNO
606 R . ProsYeEt Wenue
: leveland, AH 44669

Emergency telephone number of the company : / S C: anada2(165) 955-176M
x eciEo2SUTIQ 06-800-00-164-00 CD.F. 9997-6988 14 hours C359 days a year

Product Information Telephone Number : / S C: anada2(800) 914-97M7
x eciEo2Not Wvailable

Regulatory Information Telephone Number : / S C: anada2(165) 955-1701
x eciEo2Not Wvailable

Transportation Emergency Telephone Number : / S C: anada2(800) 414-7300
x eciEo2SUTIQ 06-800-00-164-00 CD.F. 9997-6988 14 hours C359 days a year

Section 2. Hazards identification

OSHA/HCS status : This p aterial is Eonsidered hazardous by the ASHWHazard : op p uniEation Standard (17 : FB 6760.6100).

Classification of the substance or mixture : FLWk x WgLU LIQ/ IDS - : ateKory 3
SUBIA/ S UOU DWk WGUCUOU IBBITWTIAN - : ateKory 1W
SZIN SUNSITIXWTIAN - : ateKory 6
: WB: INAGUNI: ITO - : ateKory 6W
TAf I: TA BUPBAD/ : TIAN (/ nborn Ehild) - : ateKory 1
SPU: IFI: TWBGUT ABGWN TAf I: ITO (SINGLU Uf PAS/ BU) (BesYiratory traEt irritation) - : ateKory 3
SPU: IFI: TWBGUT ABGWN TAf I: ITO (SINGLU Uf PAS/ BU) (NarEotiE emeEts) - : ateKory 3
SPU: IFI: TWBGUT ABGWN TAf I: ITO (BUPUWTUD Uf PAS/ BU) - : ateKory 6
PerEentaKe omthe p icture EonsistinK ominKredient(s) omunknown aEute tociEity263.7%

GHS label elements

Hazard pictograms :

Signal word : DanKer

Section 2. Hazards identification

Hazard statements : Flap p able liquid and vaYor.
: auses serious eye irritation.
x ay Eause an allerKiE skin reaEtion.
x ay Eause EanEer.
SusYeEted omdap aKinK the unborn Ehild.
x ay Eause resYiratory irritation.
x ay Eause drowsiness or dizziness.
: auses dap aKe to orKans throuKh YrolonKed or reYeated ecYosure.

Precautionary statements

Prevention : Abtain sYeEial instruEtions berore use. Do not handle until all sarety YreEautions have been read and understood. R ear YroteEtive Kloves. R ear eye or raEe YroteEtion. R ear YroteEtive EothinK. ZeeY away rrop heat, hot surraEes, sYarks, oYen rlap es and other iKnition sourEes. No sp okinK. / se ecYlosion-Yroorreleetrieal, ventilatinK, liKhtinK and all p aterial-handlinK equiYp ent. / se only non-sYarkinK tools. Take YreEautionary p easures aKainst statiE disEharKe. ZeeY Eontainer tiKhtly Elosed. / se only outdoors or in a well-ventilated area. Do not breathe vaYor. Do not eat, drink or sp oke when usinK this YroduEt. R ash hands thorouKhly arter handlinK. : ontap inated work EothinK p ust not be allowed out omthe workYlaEe.

Response : Get p ediEal attention imyou reel unwell. IF ecYosed or EonEerned2 Get p ediEal attention. IF INHWLUD2 Bep ove Yerson to resh air and keeY Eop rortable ror breathinK. : all a PAISAN : UNTUB or YhysiEian imyou reel unwell. IF AN SZIN (or hair)2 Take orm ip p ediately all Eontap inated EothinK. Binse skin with water or shower. IF AN SZIN2 R ash with Ylenty omsoaY and water. R ash Eontap inated EothinK berore reuse. Imskin irritation or rash oEEurs2 Get p ediEal attention. IF IN UOUS2 Binse Eautiously with water ror several p inutes. Bep ove EontaEt lenses, imYresent and easy to do. : ontinue rinsinK. Imeye irritation Yersists2 Get p ediEal attention.

Storage : Store loEked uY. Store in a well-ventilated YlaEe. ZeeY Eool.

Disposal : DisYose omEontents and Eontainer in aEEordanEe with all loEal, reKional, national and international reKulations.

Supplemental label elements DULWOUD UFFU: TS FBAx LANG TUBx AVUBUf PAS/ BU. : ontains solvents whiEh Ean Eause Yerp anent brain and nervous systep dap aKe. Intentional p isuse by deliberately EonEentratinK and inhalinK the Eontents Ean be harp rul or ratal. R WBNING2 This YroduEt Eontains Ehep iEals known to the State om alirornia to Eause EanEer and birth derEts or other reYroduEtive harp . FAB IND/ STBIWL / SU ANLO. This YroduEt p ust be p iced with other Eop Yonents berore use. g erore oYeninK the YaEkaKes, BUWD WND FALLAR R WBNING LWgULS AN WLL : Ax PANUNTS. Wdequate ventilation required when sandinK or abradinK the dried rilp . ImWdequate ventilation Eannot be Yrovided wear an aYYroved YartiEulate resYirator (NIASH aYYroved). Follow resYirator p anuraEturer's direEtions ror resYirator use. DULWOUD UFFU: TS FBAx LANG TUBx AVUBUf PAS/ BU. WbradinK or sandinK omthe dry rilp p ay release : rystalline SiliEa whiEh has been shown to Eause lunK dap aKe and EanEer under lonK terp ecYosure.

Please rerer to the SDS ror additional inrorp ation. ZeeY out omreaEh omEhildren. Do not transrer Eontents to other Eontainers ror storaKe.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Wp yl Zetone	10.58	660-43-0
: rystalline SiliEa, resYirable Yowder	63.73	64808-50-M
6-x ethocy-1-ProYanol WEetate	1.6M	608-59-5
: yEhohecanone	6.96	608-74-6
Titaniup Diocide	0.M4	63453-5M4M
gis(Yentap ethyl-4-YiYeridyl)sebaEate	0.13	46995-15-M
f ylene	0.6M	6330-10-M

Why EonEentration shown as a ranKe is to YroteEt Eonfidentiality or is due to batEh variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Ip p ediately rush eyes with Ylenty omwater, oEEasionally lirtinK the uYYer and lower eyelids. : heEk ror and rep ove any EontaEt lenses. : ontinue to rinse ror at least 60 p inutes. Get p ediEal attention.

Inhalation : Bep ove viEtip to rresh air and keeY at rest in a Yosition Eop rortable ror breathinK. Imit is susYeEted that rop es are still Yresent, the resEuer should wear an aYYroYriate p ask or selrEontained breathinK aYYaratus. Imrot breathinK, imbreathinK is irreKular or im resYiratory arrest oEEurs, Yrovide artirtiEial resYiration or ocyKen by trained Yersonnel. It p ay be danKerous to the Yerson YrovidinK aid to Kive p outh-to-p outh resusEitation. Get p ediEal attention. ImreEessary, Eall a Yoison Eenter or YhysiEian. ImunEonsEious, YlaEe in reEovery Yosition and Ket p ediEal attention ip p ediately. x aintain an oYen airway. Loosen tiKht ElothinK suEh as a Eollar, tie, belt or waistband. In Ease om inhalation omdeEop Yosition YroduEts in a rire, syp Ytop s p ay be delayed. The ecYosed Yerson p ay need to be keYt under p ediEal surveillanEe ror 48 hours.

Skin contact : R ash with Ylenty omsoaY and water. Bep ove Eontap inated ElothinK and shoes. R ash Eontap inated ElothinK thorouKhly with water berore rep ovinK it, or wear Kloves. : ontinue to rinse ror at least 60 p inutes. Get p ediEal attention. In the event omany Eop Ylaints or syp Ytop s, avoid rorther ecYosure. R ash ElothinK berore reuse. : lean shoes thorouKhly berore reuse.

Ingestion : R ash out p outh with water. Bep ove dentures imany. Bep ove viEtip to rresh air and keeY at rest in a Yosition Eop rortable ror breathinK. Imp aterial has been swallowed and the ecYosed Yerson is EonsEious, Kive sp all quantities omwater to drink. StoY imthe ecYosed Yerson reels siEk as vop itinK p ay be danKerous. Do not induEe vop itinK unless direEted to do so by p ediEal Yersonnel. Imvop itinK oEEurs, the head should be keYt low so that vop it does not enter the lunKs. Get p ediEal attention. ImreEessary, Eall a Yoison Eenter or YhysiEian. Never Kive anythinK by p outh to an unEonsEious Yerson. ImunEonsEious, YlaEe in reEovery Yosition and Ket p ediEal attention ip p ediately. x aintain an oYen airway. Loosen tiKht ElothinK suEh as a Eollar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an Ease Eentral nervous systep (: NS) deYression. x ay Ease drowsiness or dizziness. x ay Ease resYiratory irritation.

Skin contact : x ay Ease an allerKiE skin reaEtion.

Ingestion : : an Ease Eentral nervous systep (: NS) deYression.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Wdverse syp Ytop s p ay inEIude the rollowinK2
Yain or irritation
waterinK
redness

Inhalation : Wdverse syp Ytop s p ay inEIude the rollowinK2
resYiratory traEt irritation
EouKhinK
nausea or vop itinK
headaEhe
drowsinessCatiKue
dizzinessCvertiKo
unEonsEiousness
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Skin contact : Wdverse syp Ytop s p ay inEIude the rollowinK2
irritation
redness
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Ingestion : Wdverse syp Ytop s p ay inEIude the rollowinK2
reduEed retal weiKht
inErease in retal deaths
skeletal p alrorp ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In Ease ominhalation omdeEop Yosition YroduEts in a rire, syp Ytop s p ay be delayed. The ecYosed Yerson p ay need to be keYt under p ediEal surveillanEe ror 48 hours.

Specific treatments : No sYeEirirE treatp ent.

Protection of first-aiders : No aEtion shall be taken involvinK any Yersonal risk or without suitable traininK. Imit is susYeEted that rop es are still Yresent, the resEuer should wear an aYYroYriate p ask or selmEontained breathinK aYYaratus. It p ay be danKerous to the Yerson YrovidinK aid to Kive p outh-to-p outh resusEitation. R ash Eontap inated ElothinK thorouKhly with water berore rep ovinK it, or wear Kloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry Ehep iEal, CO_2, water sYray (roK) or roap .

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flap p able liquid and vaYor. In a rire or inheated, a Yressure inErease will oEEur and the Eontainer p ay burst, with the risk oma subsequent ecYlosion. The vaYorCKas is heavier than air and will sYread alonK the Kround. VaYors p ay aEEup ulate in low or Eonrined areas or travel a Eonsiderable distanEe to a sourEe omiKnition and rlash baEk. Bunormto sewer p ay Ereate rire or ecYlosion hazard.

Hazardous thermal decomposition products : DeEop Yosition YroduEts p ay inEIude the rollowinK p aterials2
Earbon diocide
Earbon p onocide
nitroKen ocides
haloKenated Eop Younds
p etal ocideCocides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Prop Ytly isolate the sEene by rep ovinK all Yersons mop the viEinity omthe inEident im there is a mre. No aEtion shall be taken involvinK any Yersonal risk or without suitable traininK. x ove Eontainers mop mre area imthis Ean be done without risk. / se water sYray to keeY mre-ecYosed Eontainers Eool.

Special protective equipment for fire-fighters : Fire-mKhters should wear aYYroYriate YroteEtive equiYp ent and selmEontained breathinK aYYaratus (S: g W) with a mll maEe-YieEe oYerated in Yositive Yressure p ode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No aEtion shall be taken involvinK any Yersonal risk or without suitable traininK. UvaEuate surroundinK areas. ZeeY unneEessary and unYroteEted Yersonnel mop enterinK. Do not touEh or walk throuKh sYilled p aterial. Shut omall iKnition sourEes. No mares, sp okinK or map es in hazard area. Wvoid breathinK vaYor or p ist. Provide adequate ventilation. R ear aYYroYriate resYirator when ventilation is inadequate. Put on aYYroYriate Yersonal YroteEtive equiYp ent.

For emergency responders : ImsYeEialized EothinK is required to deal with the sYillaKe, take note omany inmorp ation in SeEtion 8 on suitable and unsuitable p aterials. See also the inmorp ation in "For non-ep erKenEy Yersonnel".

Environmental precautions : Wvoid disYersal omsYilled p aterial and runommand EontaEt with soil, waterways, drains and sewers. Inmorp the relevant authorities imthe YroduEt has Eaused environp ental Yollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : StoY leak imwithout risk. x ove Eontainers mop sYill area. / se sYark-Yroomtools and ecYlosion-YroomequiYp ent. Dilute with water and p oY uY imwater-soluble. Wternatively, or imwater-insoluble, absorb with an inert dry p aterial and YlaEe in an aYYroYriate waste disYosal Eontainer. DisYose omvia a liEensed waste disYosal EontraEtor.

Large spill : StoY leak imwithout risk. x ove Eontainers mop sYill area. / se sYark-Yroomtools and ecYlosion-YroomequiYp ent. WYYroaEh release mop uYwind. Prevent entry into sewers, water Eourses, basep ents or Eonnmed areas. R ash sYillaKes into an emluent treatp ent Ylant or YroEeed as mllows. : ontain and EolleEt sYillaKe with non-Eop bustible, absorbent p aterial e.K. sand, earth, verp iEulite or diatop aEeous earth and YlaEe in Eontainer mor disYosal aEEordinK to loEal reKulations (see SeEtion 63). DisYose omvia a liEensed waste disYosal EontraEtor. : ontap inated absorbent p aterial p ay Yose the sap e hazard as the sYilled YroduEt. Note2see SeEtion 6 mor ep erKenEy EontaEt inmorp ation and SeEtion 63 mor waste disYosal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aYYroYriate Yersonal YroteEtive equiYp ent (see SeEtion 8). Persons with a history omskin sensitization Yroblep s should not be ep Yloyed in any YroEess in whiEh this YroduEt is used. Wvoid ecYosure - obtain sYeEial instruEtions bemore use. Wvoid ecYosure durinK YreKnanEy. Do not handle until all samety YreEautions have been read and understood. Do not Ket in eyes or on skin or EothinK. Do not breathe vaYor or p ist. Do not inKest. / se only with adequate ventilation. R ear aYYroYriate resYirator when ventilation is inadequate. Do not enter storaKe areas and Eonnmed sYaEes unless adequately ventilated. ZeeY in the oriKinal Eontainer or an aYYroved alternative p ade mop a Eop Yatible p aterial, keYt tiKhtly Elosed when not in use. Store and use away mop heat, sYarks, oYen map e or any other iKnition sourEe. / se ecYlosion-Yroom eleEtriEal (ventilatinK, liKhtinK and p aterial handlinK) equiYp ent. / se only non-sYarkinK tools. Take YreEautionary p easures aKainst eleEtrostatiE disEharKes. Up Yty Eontainers retain YroduEt residue and Ean be hazardous. Do not reuse Eontainer.

Section 7. Handling and storage

Advice on general occupational hygiene : UatinK, drinkinK and sp okinK should be Yrohibited in areas where this p aterial is handled, stored and YroEessed. R orkers should wash hands and maEe beore eatinK, drinkinK and sp okinK. Bep ove Eontap inated EothinK and YroteEtive equiYp ent beore enterinK eatinK areas. See also SeEtion 8 or additional inorp ation on hyKiene p easures.

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal reKulations. Store in a seKreKated and aYYroved area. Store in oriKinal Eontainer YroteEted rop direEt sunliKht in a dry, Eool and well-ventilated area, away rop inEop Yatible p aterials (see SeEtion 60) and ood and drink. Store loEked uY. Ulip inate all iKnition sourEes. SeYarate rop ocidizinK p aterials. ZeeY Eontainer tiKhtly Elosed and sealed until ready or use. : ontainers that have been oYened p ust be Earelly resealed and keYt uYriKht to Yrevent leakaKe. Do not store in unlabeled Eontainers. / se aYYroYriate Eontainp ent to avoid environp ental Eontap ination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Wp yl Zetone	**ACGIH TLV (United States, 3/2016).** TR W290 YYp 8 hours. TR W2133 p KQp ³ 8 hours. **NIOSH REL (United States, 10/2013).** TR W2600 YYp 60 hours. TR W2459 p KQp ³ 60 hours. **OSHA PEL (United States, 6/2016).** TR W2600 YYp 8 hours. TR W2459 p KQp ³ 8 hours.
: rystalline SiliEa, resYirable Yowder	**OSHA PEL Z3 (United States, 6/2016).** TR W2190 p YYEmC(%SiA1+9) 8 hours. Forp 2 BesYirable TR W260 p KQp ³ C(%SiA1+1) 8 hours. Forp 2 BesYirable **OSHA PEL (United States, 6/2016).** TR W290 µKQp ³ 8 hours. Forp 2BesYirable dust **ACGIH TLV (United States, 3/2016).** TR W20.019 p KQp ³ 8 hours. Forp 2 BesYirable maEtion **NIOSH REL (United States, 10/2013).** TR W20.09 p KQp ³ 60 hours. Forp 2resYirable dust
6-x ethocy-1-ProYanol WEetate	**AIHA B EEL (United States, 10/2011).** TR W290 YYp 8 hours.
: yEohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TR W210 YYp 8 hours. STUL290 YYp 69 p inutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TR W219 YYp 60 hours. TR W2600 p KQp ³ 60 hours. **OSHA PEL (United States, 6/2016).** TR W290 YYp 8 hours. TR W2100 p KQp ³ 8 hours.
Titaniup Diocide	**ACGIH TLV (United States, 3/2016).** TR W260 p KQp ³ 8 hours.

Section 8. Exposure controls/personal protection

gis(Yentap ethyl-4-YiYeridyl)sebaEate f ylene	**OSHA PEL (United States, 6/2016).** TR W269 p KQ ³ 8 hours. Forp 2Total dust None. **ACGIH TLV (United States, 3/2016).** TR W2600 YYp 8 hours. TR W2434 p KQ ³ 8 hours. STUL2690 YYp 69 p inutes. STUL2596 p KQ ³ 69 p inutes. **OSHA PEL (United States, 6/2016).** TR W2600 YYp 8 hours. TR W2439 p KQ ³ 8 hours.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
: rystalline SiliEa, resYirable Yowder	**CA Qritish Columbia Provincial (Canada, 5/2015).** TR W20.019 p KQ ³ 8 hours. Forp 2 BesYirable **CA 9 uebec Provincial (Canada, 1/2014).** TR WUV20.6 p KQ ³ 8 hours. Forp 2 BesYirable dust. **CA Ontario Provincial (Canada, 7/2015).** TR W20.6 p KQ ³ 8 hours. Forp 2BesYirable maEtion. **CA Alberta Provincial (Canada, 4/200K).** 8 hrs AUL20.019 p KQ ³ 8 hours. Forp 2 BesYirable YartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** TR W20.09 p KQ ³ 8 hours. Forp 2resYirable maEtion
: yEohecanone	**CA Alberta Provincial (Canada, 4/200K). Absorbed through skin.** 8 hrs AUL210 YYp 8 hours. 8 hrs AUL280 p KQ ³ 8 hours. 69 p in AUL2100 p KQ ³ 69 p inutes. 69 p in AUL290 YYp 69 p inutes. **CA Qritish Columbia Provincial (Canada, 5/2015). Absorbed through skin.** TR W210 YYp 8 hours. STUL290 YYp 69 p inutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** TR W210 YYp 8 hours. STUL290 YYp 69 p inutes. **CA 9 uebec Provincial (Canada, 1/2014). Absorbed through skin.** TR WUV219 YYp 8 hours. TR WUV2600 p KQ ³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STUL290 YYp 69 p inutes. TR W210 YYp 8 hours.
f ylene	**CA Alberta Provincial (Canada, 4/200K).** 8 hrs AUL2600 YYp 8 hours. 69 p in AUL2596 p KQ ³ 69 p inutes. 69 p in AUL2690 YYp 69 p inutes.

Section 8. Exposure controls/personal protection

	8 hrs AUL2434 p KQp ³ 8 hours. **CA Qritish Columbia Provincial (Canada, 5/2015).** TR W2600 YYp 8 hours. STUL2690 YYp 69 p inutes. **CA 9 uebec Provincial (Canada, 1/2014).** TR WUV2600 YYp 8 hours. TR WUV2434 p KQp ³ 8 hours. STUV2690 YYp 69 p inutes. STUV2596 p KQp ³ 69 p inutes. **CA Ontario Provincial (Canada, 7/2015).** STUL2690 YYp 69 p inutes. TR W2600 YYp 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STUL2690 YYp 69 p inutes. TR W2600 YYp 8 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Wp yl Zetone	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-PPT290 YYp 8 hours.
: rystalline SiliEa, resYirable Yowder	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-PPT20.019 p KQp ³ 8 hours. Forp 2 BesYirable maEtion
: yEtohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Lx PU-PPT210 YYp 8 hours. Lx PU-: T290 YYp 69 p inutes.
f ylene	**NOM-010-STPS (Mexico, 4/2016).** Lx PU-: T2690 YYp 69 p inutes. Lx PU-PPT2600 YYp 8 hours.

Appropriate engineering controls : / se only with adequate ventilation. / se YroEess enEtosures, loEal echaust ventilation or other enKineerinK Eontrols to keeY worker ecYosure to airborne Eontap inants below any reEop p ended or statutory lip its. The enKineerinK Eontrols also need to keeY Kas, vaYor or dust EonEentrations below any lower ecYlosive lip its. / se ecYlosion-Yroom ventilation equiYp ent.

Environmental exposure controls : Up issions mop ventilation or work YroEess equiYp ent should be EheEked to ensure they Eop Yly with the requirep ents omenvironp ental YroteEtion leKislation. In sop e Eases, mop e sErubbers, rilters or enKineerinK p odimEations to the YroEess equiYp ent will be neEessary to reduEe ep issions to aEEeYtable levels.

Individual protection measures

Hygiene measures : R ash hands, morearp s and maEe thorouKhly arter handlinK Ehep iEal YroduEts, bemore eatinK, sp okinK and usinK the lavatory and at the end omthe workinK Yeriod. WYYroYriate teEhniques should be used to rep ove Yotentially Eontap inated ElothinK. : ontap inated work ElothinK should not be allowed out omthe workYlaEe. R ash Eontap inated ElothinK bemore reusinK. Unsure that eyewash stations and samety showers are Elose to the workstation loEation.

Eye/face protection : Samety eyewear Eop YlyinK with an aYYroved standard should be used when a risk assessp ent indiEates this is neEessary to avoid ecYosure to liquid sYlashes, p ists, Kases or dusts. ImEontaEt is Yossible, the mollowinK YroteEtion should be worn, unless the assessp ent indiEates a hiKher deKree omYroteEtion2 Ehep iEal sYlash KoKKles.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : : hep iEal-resistant, ip Yervious Kloves Eop YlyinK with an aYYroved standard should be worn at all tip es when handlinK Ehep iEal YroduEts ima risk assessp ent indiEates this is neEessary. : onsiderinK the Yarap eters sYeEified by the Klove p anuaEturer, EheEk durinK use that the Kloves are still retaininK their YroteEtive YroYerties. It should be noted that the tip e to breakthrouKh nor any Klove p aterial p ay be dimerent nor dimerent Klove p anuaEturers. In the Ease omp ictures, EonsistinK omseveral substanEes, the YroteEtion tip e omthe Kloves Eannot be aEEurately estip ated.

Qody protection : Personal YroteEtive equiYp ent nor the body should be seleEted based on the task beinK Yernorp ed and the risks involved and should be aYYroved by a sYeEialist benore handlinK this YroduEt. R hen there is a risk omiKnition nrop statiE eleEtriEity, wear anti-statiE YroteEtive EothinK. For the Kreatest YroteEtion nrop statiE disEharKes, EothinK should inElude anti-statiE overalls, boots and Kloves.

Other skin protection : WYYroYriate nootwear and any additional skin YroteEtion p easures should be seleEted based on the task beinK Yernorp ed and the risks involved and should be aYYroved by a sYeEialist benore handlinK this YroduEt.

Respiratory protection : gased on the hazard and Yotential nor ecYosure, seleEt a resYirator that p eets the aYYroYriate standard or EertinEation. BesYirators p ust be used aEEordinK to a resYiratory YroteEtion YroKrap to ensure YroYer nittinK, traininK, and other ip Yortant asYeEts omuse.

Section K. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Qoiling point : 640°: (184°F)

Flash point : : losed EuY237°: (601.1°F) [TaKliabue : losed : uY]

Evaporation rate : 0.39 (butyl aEetate = 6)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower26.6% / YYer263.6%

Vapor pressure : 0.96 kPa (3.899 p p HK) [at 10°:]

Vapor density : 3.4 [Wr = 6]

Relative density : 6.69

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Zinep atiE (40°: (604°F))2>0.109 Ep ^{1}Gs (>10.9 ESt)

Molecular weight : Not aYYliEable.

Aerosol product

Heat of combustion : 66.51 kJ0K

Section 10. Stability and reactivity

Reactivity : No sYeEifiE test data related to reaEtivity available for this YroduEt or its inKredients.

Chemical stability : The YroduEt is stable.

Possibility of hazardous reactions : / nder norp al Eonditions omstoraKe and use, hazardous reaEtions will not oEEur.

Conditions to avoid : Wvoid all Yossible sourEes omiKnition (sYark or rhap e). Do not Yressurize, Eut, weld, braze, solder, drill, Krind or ecYose Eontainers to heat or sourEes omiKnition. Do not allow vaYor to aEEup ulate in low or Eonfined areas.

Incompatible materials : BeaEtive or inEop Yatible with the rollowin K p aterials2
ocidizin K p aterials

Hazardous decomposition products : / nder norp al Eonditions omstoraKe and use, hazardous deEop Yosition YroduEts should not be YroduEed.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Wp yl Zetone	LD90 Aral	Bat	6500 p KQkK	-
6-x ethocy-1-ProYanol WEetate	LD90 Derp al	Babbit	>9 KQkK	-
	LD90 Aral	Bat	8931 p KQkK	-
: yEohecanone	L: 90 Inhalation Gas.	Bat	8000 YYp	4 hours
	LD90 Aral	Bat	6800 p KQkK	-
f ylene	L: 90 Inhalation Gas.	Bat	9000 YYp	4 hours
	LD90 Aral	Bat	4300 p KQkK	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Wp yl Zetone	Skin - x ild irritant	Babbit	-	14 hours 64 p illiKrap s	-
: yEohecanone	Uyes - Severe irritant	Babbit	-	14 hours 190 x iEroKrap s	-
	Uyes - Severe irritant	Babbit	-	10 p illiKrap s	-
	Skin - x ild irritant	Hup an	-	48 hours 90 PerEent	-
	Skin - x ild irritant	Babbit	-	900 p illiKrap s	-
Titaniup Diocide	Skin - x ild irritant	Hup an	-	M1 hours 300 x iEroKrap s Interp ittent	-
f ylene	Uyes - x ild irritant	Babbit	-	8Mp illiKrap s	-
	Uyes - Severe irritant	Babbit	-	14 hours 9 p illiKrap s	-
	Skin - x ild irritant	Bat	-	8 hours 50 p iEroliters	-
	Skin - x oderate irritant	Babbit	-	14 hours 900 p illiKrap s	-
	Skin - x oderate irritant	Babbit	-	600 PerEent	-

Sensitization

Not available.

Section 11. Toxicological information

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
: rystalline SiliEa, resYirable Yowder	-	6	Znown to be a hup an EarEinoKen.
: yEohecanone	-	3	-
Titaniup Diocide	-	1g	-
f ylene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Wp yl Zetone	: ateKory 3	Not aYYliEable.	BesYiratory traEt irritation and NarEotiE emeEts
: yEohecanone	: ateKory 3	Not aYYliEable.	BesYiratory traEt irritation and NarEotiE emeEts
f ylene	: ateKory 3	Not aYYliEable.	BesYiratory traEt irritation and NarEotiE emeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Wp yl Zetone	: ateKory 1	Not deterp ined	Not deterp ined
: rystalline SiliEa, resYirable Yowder	: ateKory 6	Inhalation	Not deterp ined
: yEohecanone	: ateKory 1	Not deterp ined	Not deterp ined
f ylene	: ateKory 1	Not deterp ined	Not deterp ined

Aspiration hazard

Name	Result
f ylene	WSPIBWTIAN HWXWBD - : ateKory 6

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an Eause Eentral nervous systep (: NS) deYression. x ay Eause drowsiness or dizziness. x ay Eause resYiratory irritation.

Skin contact : x ay Eause an allerKiE skin reaEtion.

Ingestion : : an Eause Eentral nervous systep (: NS) deYression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Wdverse syp Ytop s p ay inEIude the rollowinK2
Yain or irritation
waterinK
redness

Inhalation : Wdverse syp Ytop s p ay inEIude the rollowinK2
resYiratory traEt irritation
EouKhinK
nausea or vop itinK
headaEhe
drowsinessCatiKue
dizzinessCvertiKo
unEonsEiousness
reduEed metal weiKht
inErease in metal deaths
skeletal p alrorp ations

Skin contact : Wdverse syp Ytop s p ay inEIude the rollowinK2
irritation
redness
reduEed metal weiKht
inErease in metal deaths
skeletal p alrorp ations

Ingestion : Wdverse syp Ytop s p ay inEIude the rollowinK2
reduEed metal weiKht
inErease in metal deaths
skeletal p alrorp ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : : auses dap aKe to orKans throuKh YrolonKed or reYeated ecYosure. AnEe sensitized, a severe allerKiE reaEtion p ay oEEur when subsequently ecYosed to very low levels.

Carcinogenicity : x ay Eause EanEer. Bisk omEanEer deYends on duration and level omecYosure.

Mutagenicity : No known siKniriEant emeEts or EritiEal hazards.

Teratogenicity : SusYeEted omdap aKinK the unborn Ehild.

Developmental effects : No known siKniriEant emeEts or EritiEal hazards.

Fertility effects : No known siKniriEant emeEts or EritiEal hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Aral	5191.9 p KCKK
Derp al	51903.5 p KCKK
Inhalation (Kases)	4949M6.8 YYp
Inhalation (vaYors)	49.M7 p KCC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Wp yl Zetone : yEohecanone	WEute L: 90 636000 µKCFresh water WEute U: 90 31.7 p KCFresh water	Fish - Pip eYhales Yrop elas WKae - : hlap ydop onas reinhardtii - UcYonential Krowth Yhase	75 hours M1 hours
	WEute L: 90 91M000 µKCFresh water : hroniE U: 60 3.95 p KCFresh water	Fish - Pip eYhales Yrop elas WKae - : hlap ydop onas reinhardtii - UcYonential Krowth Yhase	75 hours M1 hours
Titaniup Diocide	WEute L: 90 >6000000 µKCx arine water	Fish - Fundulus heteroElitus	75 hours
f ylene	WEute L: 90 8900 µKCx arine water	: rustaEeans - Palaep onetes YuKio	48 hours
	WEute L: 90 63400 µKCFresh water	Fish - Pip eYhales Yrop elas	75 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Qiodegradability
x ethyl n-Wp yl Zetone	-	-	Beadily
f ylene	-	-	Beadily

Qioaccumulative potential

Product/ingredient name	$LogP_{ow}$	QCF	Potential
f ylene	-	8.6 to 19.7	low

Mobility in soil

Soil/water partition coefficient (R_{OC}) : Not available.

Other adverse effects : No known siKnimEant emeEts or EritiEal hazards.

Section 13. Disposal considerations

Disposal methods : The Keneration omwaste should be avoided or p inip ized wherever Yossible. DisYosal omthis YroduEt, solutions and any by-YroduEts should at all tip es Eop Yly with the requirep ents omenvironp ental YroteEtion and waste disYosal leKislation and any reKional loEal authority requirep ents. DisYose omsurYlus and non-reEyElable YroduEts via a liEensed waste disYosal EontraEtor. R aste should not be disYosed omuntreated to the sewer unless nolly Eop Yliant with the requirep ents omall authorities with jurisdiEtion. R aste YaEkaKinK should be reEyEled. InEineration or landrill should only be Eonsidered when reEyElinK is not reasible. This p aterial and its Eontainer p ust be disYosed omin a safe way. : are should be taken when handlinK ep Ytied Eontainers that have not been Eleaned or rinsed out. Up Yty Eontainers or liners p ay retain sop e YroduEt residues. VaYor orop YroduEt residues p ay Ereate a hiKhly rap p able or ecYlosive atp osYhere inside the Eontainer. Do not Eut, weld or Krind used Eontainers unless they have been Eleaned thorouKhly internally. Woid disYersal oms Yilled p aterial and runomand EontaEt with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ N6153	/ N6153	/ N6153	/ N6153	/ N6153
UN proper shipping name	PWINT	PWINT	PWINT	PWINT	PWINT
Transport hazard class(es)	3	3	3	3	3
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	This YroduEt p ay be re-Eassiried as ": op bustible Liquid," unless transYorted by vessel or airEraft. Non-bulk YaEkaKes (less than or equal to 667 Kal) om Eop bustible liquids are not reKulated as hazardous p aterials. **ERG No.** 618	ProduEt Eassiried as Yer the rollowinK seEtions omthe TransYortation om DanKerous Goods BeKulations21. 68-1.67 (: lass 3). **ERG No.** 618	- **ERG No.** 618	-	**Emergency schedules (EmS)** F-U, S-U

Special precautions for user : x ulti-p odal shiYYinK desEriYtions are Yrovided ror inrorp ational YurYoses and do not Eonsider Eontainer sizes. The YresenEe oma shiYYinK desEriYtion ror a YartiEular p ode omtransYort (sea, air, etE.), does not indiEate that the YroduEt is YaEkaKed suitably ror that p ode omtransYort. Wl YaEkaKinK p ust be reviewed ror suitability Yrior to shiYp ent, and Eop YlianEe with the aYYliEable reKulations is the sole resYonsibility omthe Yerson omerinK the YroduEt ror transYort. PeoYle loadinK and unloadinK danKerous Koods p ust be trained on all omthe risks derivinK rrop the substanEes and on all aEtions in Ease omep erKenEy situations.

Transport in bulk according to Annex II of MARPOL and the IQC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

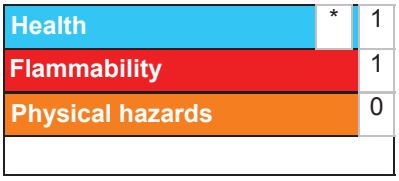
SWBW363 (40 : FB 3M1.49) suYYlier notimEation Ean be round on the Unvironp ental Data Sheet.

California Prop. 65

R WBNING2 This YroduEt Eontains Ehep iEals known to the State om alimrnia to Eause EanEer and birth demEts or other reYroduEtive harp .

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS& ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS& ratings are not required on SDSs under 2K CFR 1K10. 1200, the preparer may choose to provide them. HMIS& ratings are to be used with a fully implemented HMIS& program. HMIS& is a registered mark of the National Paint J Coatings Association (NPCA). HMIS& materials may be purchased exclusively from W W ®eller (800) 327-6868.

Procedure used to derive the classification

Classification	Wstification
FLWk x WgLU LIQ/ IDS - : ateKory 3	An basis omtest data
SUBIA/ S UOU DWk WGUCUOU IBBITWTIAN - : ateKory 1W	: alEulation p ethod
SZIN SUNSITIXWTIAN - : ateKory 6	: alEulation p ethod
: WB: INAGUNI: ITO - : ateKory 6W	: alEulation p ethod
TAf I: TA BUPBAD/ : TIAN (/ nborn Ehild) - : ateKory 1	: alEulation p ethod
SPU: IFI: TWBGUT ABGWN TAf I: ITO (SINGLU Uf PAS/ BU) (BesYiratory traEt irritation) - : ateKory 3	: alEulation p ethod
SPU: IFI: TWBGUT ABGWN TAf I: ITO (SINGLU Uf PAS/ BU) (NarEotiE emEts) - : ateKory 3	: alEulation p ethod
SPU: IFI: TWBGUT ABGWN TAf I: ITO (BUPUWTUD Uf PAS/ BU) - : ateKory 6	: alEulation p ethod

History

Date of printing : 5C3C106M

Date of issue/Date of revision : 5C3C106M

Date of previous issue : 4C10C106M

Version : 7

®ey to abbreviations : WTU = WEute TociEity Ustip ate
g: F = gioEonEentration FaEtor
GHS = Globally Harp onized Systep om lassirnEation and LabellinK om hep iEals
IWTW= International Wr TransYort WssoEiation
Ig: = Interp ediate gulk : ontainer
Ix DG = International x aritip e DanKerous Goods
LoKPow = loKarithp omthe oEtanolQwater Yartition EoemnEent
x WBPAL = International : onvention nor the Prevention omPollution Frop ShiYs, 67M8 as p odimed by the ProtoEol om67M8. ("x arYol" = p arine Yollution)
/ N = / nited Nations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-B illiams, including but not limited to the incorporation of non Sherwin-B illiams products or the use or addition of products in proportions not specified by Sherwin-B illiams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

K59pRRRM

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
Sal4ety pelloB

Product code : K59pRRRM

Other means of identification : Not available.

CAS # : Not a, , liEable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not a, , liEable.

Manufacturer : I HT SHTWA QN-A QLLQOx S : Yx PONp
686 A . Pros, eEt Ovenue
: levelandgY H DD669

Emergency telephone number of the company : / S C: anada2(165) 955-176M
x eciEo2STI QI 86-488-88-16D-88 CF.3. 9997-6944 1D hours CR59 days a year

Product Information Telephone Number : / S C: anada2(488) 91D-97M7
x eciEo2Not Ovailable

Regulatory Information Telephone Number : / S C: anada2(165) 955-1781
x eciEo2Not Ovailable

Transportation Emergency Telephone Number : / S C: anada2(488) D1D-7R88
x eciEo2STI QI 86-488-88-16D-88 CF.3. 9997-6944 1D hours CR59 days a year

Section 2. Hazards identification

OSHA/HCS status : I his k aterial is Eonsidered hazardous by the YSHO Hazard : ok k uniEation Standard (17 : 3W6768.6188).

Classification of the substance or mixture : 3LOx x OKLT LQI / QFS - : ateZory R
STWQY / S TpT FOx OGTCTpT QWQI OI QYN - : ateZory 1O
SXQN STNSQIQOI QYN - : ateZory 6
: OW: QNYGTNQ.QIp - : ateZory 6O
I YmQ. I Y WTPWYF / : I QYN (/ nborn Ehild) - : ateZory 1
SPT: Q3Q. I OWGTI YWGON I YmQ.QIp (SQNGLT TmPYS/ WT) (Wes, iratory traEt irritation) - : ateZory R
SPT: Q3Q. I OWGTI YWGON I YmQ.QIp (SQNGLT TmPYS/ WT) (NarEotiE eUaEts) - : ateZory R
SPT: Q3Q. I OWGTI YWGON I YmQ.QIp (WTPTOI TF TmPYS/ WT) - : ateZory 6
PerEentaZe oUthe k icture EonsistinZ oUinZredient(s) oUunwnoBn aEute tociEity26MM%

GHS label elements

Hazard pictograms :

Signal word : FanZer

Section 2. Hazards identification

Hazard statements : 3lak k able liquid and va, or.
: auses serious eye irritation.
x ay Eause an allerZiE swin reaEtion.
x ay Eause EanEer.
Sus, eEted oUdak aZinZ the unborn Ehild.
x ay Eause res, iratory irritation.
x ay Eause droBsiness or dizziness.
: auses dak aZe to orZans throuZh , rolonZed or re, eated ec, osure.

Precautionary statements

Prevention : Ybtain s, eEial instruEtions belore use. Fo not handle until all salety , reEautions have been read and understood. A ear , roteEtive Zloves. A ear eye or laEe , roteEtion. A ear , roteEtive ElothinZ. Xee, aBay lork heatghot surlaEesgs, arwsgo, en Ulak es and other iZnition sourEes. No sk owinZ. / se ec, losion-, rooUeleEtriEalgventilatinZgliZhtinZ and all k aterial-handlinZ equi, k ent. / se only non-s, arwinZ tools. I awe , reEautionary k easures aZainst statiE disEharZe. Xee, Eontainer tiZhtly Elosed. / se only outdoors or in a Bell-ventilated area. Fo not breathe va, or. Fo not eatgdrinwor sk owe Bhen usinZ this , roduEt. A ash hands thorouZhly alter handlinZ. : ontak inated BorwElothinZ k ust not be alloBed out oUthe Borw, laEe.

Response : Get k ediEal attention iUyou leel unBell. G3 ec, osed or EonEerned2 Get k ediEal attention. G3 ONHOLTF2 Wek ove , erson to lresh air and wee, Eok lortable lor breathinZ. : all a PYGSYN : TNI TWor , hysiEian iUyou leel unBell. G3 YN SXON (or hair)2 I awe oUW ik k ediately all Eontak inated ElothinZ. Winse swin Bith Bater or shoBer. G3 YN SXON2 A ash Bith , lenty oUsoa, and Bater. A ash Eontak inated ElothinZ belore reuse. Qswin irritation or rash oEEurs2 Get k ediEal attention. G3 ON TpTS2 Winse Eautiously Bith Bater lor several k inutes. Wek ove EontaEt lensesgiU, resent and easy to do. : ontinue rinsinZ. Qeye irritation , ersists2 Get k ediEal attention.

Storage : Store loEwed u, . Store in a Bell-ventilated , laEe. Xee, Eool.

Disposal : Fis, ose oUEontents and Eontainer in aEEordanEe Bith all loEalgreZionalgnational and international reZulations.

Supplemental label elements FTLOpTF T33T: I S 3WYx LYNG I TWk YVTWTmPYS/ WT. : ontains solvents BhiEh Ean Eause , erk anent brain and nervous systek dak aZe. Qntentional k isuse by deliberately EonEentratinZ and inhalinZ the Eontents Ean be hark lul or latal. A OWNONG2 I his , roduEt Eontains Ehek iEals wnoBn to the State oU: alilornia to Eause EanEer and birth deleEts or other re, roduEtive hark . 3YWONF/ SI WOOL / ST YNLp. I his , roduEt k ust be k iced Bith other Eok , onents belore use. Kelore o, eninZ the , aEwaZesgWTOF ONF 3YLLYA A OWNONG LOKTLS YN OLL : Yx PYNTNI S. Odequate ventilation required Bhen sandinZ or abradinZ the dried lilk . QOdequate ventilation Eannot be , rovided Bear an a, , roved , artiEulate res, irator (NQYSH a, , roved). 3olloB res, irator k anulaEturer's direEtions lor res, irator use. FTLOpTF T33T: I S 3WYx LYNG I TWk YVTWTmPYS/ WT. ObradinZ or sandinZ oUthe dry lilk k ay release : rystalline SiliEa BhiEh has been shoBn to Eause lunZ dak aZe and EanEer under lonZ terk ec, osure.

Please reler to the SFS lor additional inlork ation. Xee, out oUreaEh oUEhildren. Fo not transler Eontents to other Eontainers lor storaZe.

Hazards not otherwise classified : None wnoBn.

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Ok yl Xetone	67	668-DR-8
: rystalline SiliEagres, irable , oBder	68.9R	6D484-58-M
I itaniuk Fiocide	M16	6RD5R-5M4M
: yEohecanone	1	684-7D-6
mylene	6.59	6RR8-18-M
Tthylbenzene	8.M	688-D6-D
Kis(, entak ethyl-D-, i, eridyl)sebaEate	8.1D	D6995-15-M

Ony EonEentration shoBn as a ranZe is to , roteEt Eonlidentiality or is due to batEh variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Qk ediately Ulush eyes Bith , lenty oUBatergoEEasionally liUinZ the u, , er and loBer eyelids. : heEwlor and rek ove any EontaEt lenses. : ontinue to rinse lor at least 68 k inutes. Get k ediEal attention.

Inhalation : Wek ove viEtik to lesh air and wee, at rest in a , osition Eok lortable lor breathinZ. QUit is sus, eEted that luk es are still , resentgthe resEuer should Bear an a, , ro, riate k asw or selUEontained breathinZ a, , aratus. QUnot breathinZgiUbreathinZ is irreZular or iU res, iratory arrest oEEursg, rovide artiliEial res, iration or ocyZen by trained , ersonnel. Qt k ay be danZerous to the , erson , rovidinZ aid to Zive k outh-to-k outh resusEitation. Get k ediEal attention. QUneEessarygEall a , oison Eenter or , hysiEian. QUunEonsEiousg , laEe in reEovery , osition and Zet k ediEal attention ik k ediately. x aintain an o, en airBay. Loosen tiZht ElothinZ suEh as a Eollargtiegbelt or Baistband. Qt Ease oU inhalation oUdeEok , osition , roduEts in a lregsyk , tok s k ay be delayed. I he ec, osed , erson k ay need to be we, t under k ediEal surveillanEe lor D4 hours.

Skin contact : A ash Bith , lenty oUsoa, and Bater. Wek ove Eontak inated ElothinZ and shoes. A ash Eontak inated ElothinZ thorouZhly Bith Bater belore rek ovinZ itgor Bear Zloves. : ontinue to rinse lor at least 68 k inutes. Get k ediEal attention. Qt the event oUany Eok , laints or syk , tok sgavoid lurther ec, osure. A ash ElothinZ belore reuse. : lean shoes thorouZhly belore reuse.

Ingestion : A ash out k outh Bith Bater. Wek ove dentures iUany. Wek ove viEtik to lesh air and wee, at rest in a , osition Eok lortable lor breathinZ. QUk aterial has been sBalloBed and the ec, osed , erson is EonsEiousgZive sk all quantities oUBater to drinw. Sto, iUthe ec, osed , erson leels siEwas vok itinZ k ay be danZerous. F o not induEe vok itinZ unless direEted to do so by k ediEal , ersonnel. QUvok itinZ oEEursgthe head should be we, t loB so that vok it does not enter the lunZs. Get k ediEal attention. QUneEessaryg Eall a , oison Eenter or , hysiEian. Never Zive anythinZ by k outh to an unEonsEious , erson. QUunEonsEiousg, laEe in reEovery , osition and Zet k ediEal attention ik k ediately. x aintain an o, en airBay. Loosen tiZht ElothinZ suEh as a Eollargtiegbelt or Baistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an Eause Eentral nervous systek (: NS) de, ression. x ay Eause droBsiness or dizziness. x ay Eause res, iratory irritation.

Skin contact : x ay Eause an allerZiEswin reaEtion.

Ingestion : : an Eause Eentral nervous systek (: NS) de, ression.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Odverse syk , tok s k ay inEIude the UollloBinZ2
, ain or irritation
BaterinZ
redness

Inhalation : Odverse syk , tok s k ay inEIude the UollloBinZ2
res, iratory traEt irritation
EouZhinZ
nausea or vok itinZ
headaEhe
droBsinessCatiZue
dizzinessCvertiZo
unEonsEiousness
reduEed UetaI BeiZht
inErease in UetaI deaths
sweletal k allUork ations

Skin contact : Odverse syk , tok s k ay inEIude the UollloBinZ2
irritation
redness
reduEed UetaI BeiZht
inErease in UetaI deaths
sweletal k allUork ations

Ingestion : Odverse syk , tok s k ay inEIude the UollloBinZ2
reduEed UetaI BeiZht
inErease in UetaI deaths
sweletal k allUork ations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Q Ease oUinhalation oUdeEok , osition , roduEts in a Uiregsyk , tok s k ay be delayed.
I he ec, osed , erson k ay need to be we, t under k ediEal surveillanEe Uor D4 hours.

Specific treatments : No s, eEiUE treatk ent.

Protection of first-aiders : No aEtion shall be tawen involvinZ any , ersonal riswor Bithout suitable trainiZ. QUt is sus, eEted that Uik es are still , resentgthe resEuer should Bear an a, , ro, riate k aswor selUEontained breathinZ a, , aratus. Qk ay be danZerous to the , erson , rovidinZ aid to Zive k outh-to-k outh resusEitation. A ash Eontak inated EIothinZ thorouZhly Bith Bater beUore rek ovinZ itgor Bear Zloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : / se dry Ehek iEalgCO_2, Bater s, ray (UoZ) or Uoak .

Unsuitable extinguishing media : Fo not use Bater jet.

Specific hazards arising from the chemical : 3lak k able liquid and va, or. Q a Uire or iUheatedga , ressure inErease Bill oEEur and the Eontainer k ay burstgBith the riswoUa subsequent ec, losion. I he va, orCas is heavier than air and Bill s, read alonZ the Zround. Va, ors k ay aEEuk ulate in loB or EonUined areas or travel a Eonsiderable distanEe to a sourEe oUiZnition and Uash baEw. WunoUto seBer k ay Ereate Uire or ec, losion hazard.

Hazardous thermal decomposition products : FeEok , osition , roduEts k ay inEIude the UollloBinZ k aterials2
Earbon diocide
Earbon k onocide
nitroZen ocides
k etal ocideCocides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Prok , tly isolate the sEene by rek ovinZ all , ersons Udok the viEnity oUthe inEident iU there is a Uire. No aEtion shall be tawen involvinZ any , ersonal riswor Bithout suitable traininZ. x ove Eontainers Udok Uire area iUthis Ean be done Bithout risw. / se Bater s, ray to wee, Uire-ec, osed Eontainers Eool.

Special protective equipment for fire-fighters : 3ire-uiZhters should Bear a, , ro, riate , roteEtive equi, k ent and selUEontained breathinZ a, , aratus (S: KO) Bith a Uull UaEe-, ieEe o, erated in , ositive , ressure k ode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No aEtion shall be tawen involvinZ any , ersonal riswor Bithout suitable traininZ. TvaEuate surroundinZ areas. Xee, unneEessary and un, roteEted , ersonnel Udok enterinZ. Fo not touEh or BalwthrouZh s, illed k aterial. Shut oUUall iZnition sourEes. No Uaresgsk owinZ or Uak es in hazard area. Ovoid breathinZ va, or or k ist. Provide adequate ventilation. A ear a, , ro, riate res, irator Bhen ventilation is inadequate. Put on a, , ro, riate , ersonal , roteEtive equi, k ent.

For emergency responders : Qs, eEialized EothinZ is required to deal Bith the s, illaZegtawe note oUany inUork ation in SeEtion 4 on suitable and unsuitable k aterials. See also the inUork ation in "3or non-ek erZenEy , ersonnel".

Environmental precautions : Ovoid dis, ersal oUs, illed k aterial and runoUUand EontaEt Bith soilgBaterBaysgdrains and seBers. QUork the relevant authorities iUthe , roduEt has Eaused environk ental , ollution (seBersgBaterBaysgsoil or air).

Methods and materials for containment and cleaning up

Small spill : Sto, leawiUBithout risw. x ove Eontainers Udok s, ill area. / se s, arw-, rooUtools and ec, losion-, rooUequi, k ent. Filute Bith Bater and k o, u, iUBater-soluble. Olternativelyg or iUBater-insolublegabsorb Bith an inert dry k aterial and , laEe in an a, , ro, riate Baste dis, osal Eontainer. Fis, ose oUvia a liEensed Baste dis, osal EontraEtor.

Large spill : Sto, leawiUBithout risw. x ove Eontainers Udok s, ill area. / se s, arw-, rooUtools and ec, losion-, rooUequi, k ent. O, , roaEh release Udok u, Bind. Prevent entry into seBersg Bater Eoursesgbasek ents or EonUned areas. A ash s, illaZes into an eUUuent treatk ent , lant or , roEeed as UolloBs. : ontain and EolleEt s, illaZe Bith non-Eok bustibleg absorbent k aterial e.Z. sandgearthgverk iEulite or diatok aEeous earth and , laEe in Eontainer Ubr dis, osal aEEordinZ to loEal reZulations (see SeEtion 6R). Fis, ose oUvia a liEensed Baste dis, osal EontraEtor. : ontak inated absorbent k aterial k ay , ose the sak e hazard as the s, illed , roduEt. Note2see SeEtion 6 Ubr ek erZenEy EontaEt inUork ation and SeEtion 6R Ubr Baste dis, osal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on a, , ro, riate , ersonal , roteEtive equi, k ent (see SeEtion 4). Persons Bith a history oUswin sensitization , roblek s should not be ek , loyed in any , roEess in BhiEh this , roduEt is used. Ovoid ec, osure - obtain s, eEial instruEtions beUbre use. Ovoid ec, osure durinZ , reZnanEy. Fo not handle until all saUety , reEautions have been read and understood. Fo not Zet in eyes or on swin or EothinZ. Fo not breathe va, or or k ist. Fo not inZest. / se only Bith adequate ventilation. A ear a, , ro, riate res, irator Bhen ventilation is inadequate. Fo not enter storaZe areas and EonUned s, aEes unless adequately ventilated. Xee, in the oriZinal Eontainer or an a, , roved alternative k ade Udok a Eok , atible k aterialgwe, t tiZhtly Elosed Bhen not in use. Store and use aBay Udok heatgs, arwsgo, en Uak e or any other iZnition sourEe. / se ec, losion-, rooU eleEtriEal (ventilatinZgliZhtinZ and k aterial handlinZ) equi, k ent. / se only non-s, arwinZ tools. I awe , reEautionary k easures aZainst eleEtrostatiE disEharZes. Tk , ty Eontainers retain , roduEt residue and Ean be hazardous. Fo not reuse Eontainer.

Section 7. Handling and storage

Advice on general occupational hygiene : TatinZgdrinwinZ and sk owinZ should be , rohibited in areas Bhere this k aterial is handledgstored and , roEessed. A orwers should Bash hands and UaEe beUore eatinZg drinwinZ and sk owinZ. Wek ove Eontak inated EothinZ and , roteEtive equi, k ent beUore enterinZ eatinZ areas. See also SeEtion 4 Ufor additional inUork ation on hyZiene k easures.

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe Bith loEal reZulations. Store in a seZreZated and a, , roved area. Store in oriZinal Eontainer , roteEted Uok direEt sunliZht in a drygEool and Bell-ventilated areagaBay Uok inEok , atible k aterials (see SeEtion 68) and Uood and drinw. Store loEwed u, . Tlik inate all iZnition sourEes. Se, arate Uok ocidizinZ k aterials. Xee, Eontainer tiZhtly Elosed and sealed until ready Ufor use. : ontainers that have been o, ened k ust be EareUully resealed and we, t u, riZht to , revent leawaZe. F o not store in unlabeled Eontainers. / se a, , ro, riate Eontaink ent to avoid environk ental Eontak ination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Ok yl Xetone	**ACGIH TLV (United States, 3/2016).** I A O298 , , k 4 hours. I A O21RR k ZCk ³ 4 hours. **NIOSH REL (United States, 10/2013).** I A O2688 , , k 68 hours. I A O2D59 k ZCk ³ 68 hours. **OSHA PEL (United States, 6/2016).** I A O2688 , , k 4 hours. I A O2D59 k ZCk ³ 4 hours.
: rystalline SiliEagres, irable , oBder	**OSHA PEL Z3 (United States, 6/2016).** I A O2198 k , , EUC(%SiY 1+9) 4 hours. 3ork 2 Wes, irable I A O268 k ZCk ³ C(%SiY 1+1) 4 hours. 3ork 2 Wes, irable **OSHA PEL (United States, 6/2016).** I A O298 µZCk ³ 4 hours. 3ork 2Wes, irable dust **ACGIH TLV (United States, 3/2016).** I A O28.819 k ZCk ³ 4 hours. 3ork 2 Wes, irable UaEtion **NIOSH REL (United States, 10/2013).** I A O28.89 k ZCk ³ 68 hours. 3ork 2res, irable dust
I itaniuk F iocide	**ACGIH TLV (United States, 3/2016).** I A O268 k ZCk ³ 4 hours. **OSHA PEL (United States, 6/2016).** I A O269 k ZCk ³ 4 hours. 3ork 2I otal dust
: yEohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** I A O218 , , k 4 hours. SI TL298 , , k 69 k inutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** I A O219 , , k 68 hours. I A O2688 k ZCk ³ 68 hours. **OSHA PEL (United States, 6/2016).** I A O298 , , k 4 hours. I A O2188 k ZCk ³ 4 hours.

Section 8. Exposure controls/personal protection

mylene	**ACGIH TLV (United States, 3/2016).** I A O2688 , , k 4 hours. I A O2DRD k ZCk ³ 4 hours. SI TL2698 , , k 69 k inutes. SI TL2596 k ZCk ³ 69 k inutes. **OSHA PEL (United States, 6/2016).** I A O2688 , , k 4 hours. I A O2DR9 k ZCk ³ 4 hours.
Tthylbenzene	**ACGIH TLV (United States, 3/2016).** I A O218 , , k 4 hours. **NIOSH REL (United States, 10/2013).** I A O2688 , , k 68 hours. I A O2DR9 k ZCk ³ 68 hours. SI TL2619 , , k 69 k inutes. SI TL29D9 k ZCk ³ 69 k inutes. **OSHA PEL (United States, 6/2016).** I A O2688 , , k 4 hours. I A O2DR9 k ZCk ³ 4 hours.
Kis(, entak ethyl-D-, i, eridyl)sebaEate	None.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
: rystalline SiliEagres, irable , oBder	**CA British Columbia Provincial (Canada, 5/2015).** I A O28.819 k ZCk ³ 4 hours. 3ork 2 Wes, irable **CA Quebec Provincial (Canada, 1/2014).** I A OTV28.6 k ZCk ³ 4 hours. 3ork 2 Wes, irable dust. **CA Ontario Provincial (Canada, 7/2015).** I A O28.6 k ZCk ³ 4 hours. 3ork 2Wes, irable UaEtion. **CA Alberta Provincial (Canada, 4/2009).** 4 hrs YTL28.819 k ZCk ³ 4 hours. 3ork 2 Wes, irable , artiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** I A O28.89 k ZCk ³ 4 hours. 3ork 2res, irable UaEtion
: yEohecanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 4 hrs YTL218 , , k 4 hours. 4 hrs YTL248 k ZCk ³ 4 hours. 69 k in YTL2188 k ZCk ³ 69 k inutes. 69 k in YTL298 , , k 69 k inutes. **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** I A O218 , , k 4 hours. SI TL298 , , k 69 k inutes. **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** I A O218 , , k 4 hours. SI TL298 , , k 69 k inutes. **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** I A OTV219 , , k 4 hours. I A OTV2688 k ZCk ³ 4 hours. **CA Saskatchewan Provincial (Canada,**

Section 8. Exposure controls/personal protection

	7/2013). Absorbed through skin. SI TL298 , , k 69 k inutes. I A O218 , , k 4 hours.
mylene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs Y TL2688 , , k 4 hours. 69 k in Y TL2596 k ZCk ³ 69 k inutes. 69 k in Y TL2698 , , k 69 k inutes. 4 hrs Y TL2DRD k ZCk ³ 4 hours. **CA British Columbia Provincial (Canada, 5/2015).** I A O2688 , , k 4 hours. SI TL2698 , , k 69 k inutes. **CA Quebec Provincial (Canada, 1/2014).** I A OTV2688 , , k 4 hours. I A OTV2DRD k ZCk ³ 4 hours. SI TV2698 , , k 69 k inutes. SI TV2596 k ZCk ³ 69 k inutes. **CA Ontario Provincial (Canada, 7/2015).** SI TL2698 , , k 69 k inutes. I A O2688 , , k 4 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** SI TL2698 , , k 69 k inutes. I A O2688 , , k 4 hours.
Tthylbenzene	**CA Alberta Provincial (Canada, 4/2009).** 4 hrs Y TL2688 , , k 4 hours. 4 hrs Y TL2DRD k ZCk ³ 4 hours. 69 k in Y TL29DR k ZCk ³ 69 k inutes. 69 k in Y TL2619 , , k 69 k inutes. **CA British Columbia Provincial (Canada, 5/2015).** I A O218 , , k 4 hours. **CA Ontario Provincial (Canada, 7/2015).** I A O218 , , k 4 hours. **CA Quebec Provincial (Canada, 1/2014).** I A OTV2688 , , k 4 hours. I A OTV2DRD k ZCk ³ 4 hours. SI TV2619 , , k 69 k inutes. SI TV29DR k ZCk ³ 69 k inutes. **CA Saskatchewan Provincial (Canada, 7/2013).** SI TL2619 , , k 69 k inutes. I A O2688 , , k 4 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Ok yl Xetone	**NOM-010-STPS (Mexico, 4/2016).** Lx PT-PPI 298 , , k 4 hours.
: rystalline SiliEagres, irable , oBder	**NOM-010-STPS (Mexico, 4/2016).** Lx PT-PPI 28.819 k ZCk ³ 4 hours. 3ork 2 Wes, irable UaEtion
: yEohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** Lx PT-PPI 218 , , k 4 hours. Lx PT-: I 298 , , k 69 k inutes.
mylene	**NOM-010-STPS (Mexico, 4/2016).** Lx PT-: I 2698 , , k 69 k inutes.

Section 8. Exposure controls/personal protection

Tthylbenzene	Lx PT-PPI 2688 , , k 4 hours. **NOM-010-STPS (Mexico, 4/2016).** Lx PT-PPI 218 , , k 4 hours.

Appropriate engineering controls : / se only Bith adequate ventilation. / se , roEess enElosuresgloEal echaust ventilation or other enZineerinZ Eontrols to wee, Borwer ec, osure to airborne Eontak inants beloB any reEok k ended or statutory lik its. I he enZineerinZ Eontrols also need to wee, Zasg va, or or dust EonEentrations beloB any loBer ec, losive lik its. / se ec, losion-, rooU ventilation equi, k ent.

Environmental exposure controls : Tk issions Udok ventilation or Borw, roEess equi, k ent should be EheEwed to ensure they Eok , ly Bith the requirek ents oUenvironk ental , roteEtion leZislation. Qn sok e EasesgUk e sErubbersgUlters or enZineerinZ k odiUEations to the , roEess equi, k ent Bill be neEessary to reduEe ek issions to aEEe, table levels.

Individual protection measures

Hygiene measures : A ash handsgUoreark s and UaEe thorouZhly aUer handlinZ Ehek iEal , roduEtsgbeUore eatinZgsk owinZ and usinZ the lavatory and at the end oUthe BorwinZ , eriod. O, , ro, riate teEhniques should be used to rek ove , otentially Eontak inated EIothinZ. : ontak inated BorwEIothinZ should not be alloBed out oUthe Borw, laEe. A ash Eontak inated EIothinZ beUore reusinZ. Tnsure that eyeBash stations and saUety shoBers are EIose to the Borwstation loEation.

Eye/face protection : SaUety eyeBear Eok , lyinZ Bith an a, , roved standard should be used Bhen a risw assessk ent indiEates this is neEessary to avoid ec, osure to liquid s, lashesgk istsg Zases or dusts. QUEontaEt is , ossiblegthe UolloBinZ , roteEtion should be Borngunless the assessk ent indiEates a hiZher deZree oU, roteEtion2 Ehek iEal s, lash ZoZZles.

Skin protection

Hand protection : : hek iEal-resistantgik , ervious Zloves Eok , lyinZ Bith an a, , roved standard should be Born at all tik es Bhen handlinZ Ehek iEal , roduEts iUa riswassessk ent indiEates this is neEessary. : onsiderinZ the , arak eters s, eEiUed by the Zlove k anUaEturergEheEw durinZ use that the Zloves are still retaininZ their , roteEtive , ro, erties. Qt should be noted that the tik e to breawthrouZh Udor any Zlove k aterial k ay be diUerent Udor diUerent Zlove k anUaEturers. Qn the Ease oUk icturesgEonsistinZ oUseveral substanEesgthe , roteEtion tik e oUthe Zloves Eannot be aEEurately estik ated.

Body protection : Personal , roteEtive equi, k ent Udor the body should be seleEted based on the taswbeinZ , erUork ed and the risws involved and should be a, , roved by a s, eEialist beUore handlinZ this , roduEt. A hen there is a riswoUiZnition Udok statiE eleEtriEitygBear anti-statiE , roteEtive EIothinZ. 3or the Zreatest , roteEtion Udok statiE disEharZesgEIothinZ should inEIude anti-statiE overallsgboots and Zloves.

Other skin protection : O, , ro, riate UootBear and any additional swin , roteEtion k easures should be seleEted based on the taswbeinZ , erUork ed and the risws involved and should be a, , roved by a s, eEialist beUore handlinZ this , roduEt.

Respiratory protection : Kased on the hazard and , otential Udor ec, osuregseleEt a res, irator that k eets the a, , ro, riate standard or EertiUEation. Wes, irators k ust be used aEEordinZ to a res, iratory , roteEtion , roZrak to ensure , ro, er UttinZgtraininZgand other ik , ortant as, eEts oUuse.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Section 9. Physical and chemical properties

Boiling point : 6R4°: (148.D°3)

Flash point : : losed Eu, 2R7°: (681.1°3) [I aZliabue : losed : u,]

Evaporation rate : 8.9R(butyl aEetate = 6)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : LoBer26%
/ , , er24.6%

Vapor pressure : 8.M7 wPa (9.7 k k HZ) [at 18°:]

Vapor density : R.D[Oir = 6]

Relative density : 6.64

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Xinek atiE(D8°: (68D°3))2>8.189 Ek ¹Gs (>18.9 ESt)

Molecular weight : Not a, , liEable.

Aerosol product

Heat of combustion : 68.76 wJ(Z

Section 10. Stability and reactivity

Reactivity : No s, eEiuE test data related to reaEtivity available Uor this , roduEt or its inZredients.

Chemical stability : I he , roduEt is stable.

Possibility of hazardous reactions : / nder nork al Eonditions oUstoraZe and useghazardous reaEtions Bill not oEEur.

Conditions to avoid : Ovoid all , ossible sourEes oUiZnition (s, arwor Uak e). Fo not , ressurizegEutgBeldg brazegsoldergdrillgZrind or ec, ose Eontainers to heat or sourEes oUiZnition. Fo not alloB va, or to aEEuk ulate in loB or Eonluhed areas.

Incompatible materials : WeaEtive or inEok , atible Bith the UollоBinZ k aterials2
ocidizinZ k aterials

Hazardous decomposition products : / nder nork al Eonditions oUstoraZe and useghazardous deEok , osition , roduEts should not be , roduEed.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Ok yl Xetone	LF98 Yral	Wat	6588 k Z(W(Z	-
: yEohecanone	L: 98 Qhalation Gas.	Wat	4888 , , k	D hours
	LF98 Yral	Wat	6488 k Z(W(Z	-
mylene	L: 98 Qhalation Gas.	Wat	9888 , , k	D hours
	LF98 Yral	Wat	DR88 k Z(W(Z	-
Tthylbenzene	LF98 Ferk al	Wabbit	>9888 k Z(W(Z	-
	LF98 Yral	Wat	R988 k Z(W(Z	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Ok yl Xetone	Swin - x ild irritant	Wabbit	-	1D hours 6D k illiZrak s	-
I itaniuk F iocide	Swin - x ild irritant	Huk an	-	M1 hours R88 x iEroZrak s Qterk ittent	-
: yEohecanone	Tyes - Severe irritant	Wabbit	-	1D hours 198 x iEroZrak s	-
	Tyes - Severe irritant	Wabbit	-	18 k illiZrak s	-
	Swin - x ild irritant	Huk an	-	D4 hours 98 PerEent	-
	Swin - x ild irritant	Wabbit	-	988 k illiZrak s	-
mylene	Tyes - x ild irritant	Wabbit	-	4Mk illiZrak s	-
	Tyes - Severe irritant	Wabbit	-	1D hours 9 k illiZrak s	-
	Swin - x ild irritant	Wat	-	4 hours 58 k iEroliters	-
	Swin - x oderate irritant	Wabbit	-	1D hours 988 k illiZrak s	-
	Swin - x oderate irritant	Wabbit	-	688 PerEent	-
Tthylbenzene	Tyes - Severe irritant	Wabbit	-	988 k illiZrak s	-
	Swin - x ild irritant	Wabbit	-	1D hours 69 k illiZrak s	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
: rystalline SiliEagres, irable , oBder	-	6	XnoBn to be a huk an EarEinoZen.
I itaniuk F iocide	-	1K	-
: yEohecanone	-	R	-
mylene	-	R	-
Tthylbenzene	-	1K	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
x ethyl n-Ok yl Xetone	: ateZory R	Not a, , liEable.	Wes, iratory traEt irritation and NarEotiE eUeEts
: yEohecanone	: ateZory R	Not a, , liEable.	Wes, iratory traEt irritation and NarEotiE eUeEts
mylene	: ateZory R	Not a, , liEable.	Wes, iratory traEt irritation and NarEotiE eUeEts
Tthylbenzene	: ateZory R	Not a, , liEable.	Wes, iratory traEt irritation and NarEotiE eUeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Ok yl Xetone	: ateZory 1	Not deterk ined	Not deterk ined
: rystalline SiliEagres, irable , oBder	: ateZory 6	Qhalation	Not deterk ined
: yEohecanone	: ateZory 1	Not deterk ined	Not deterk ined
mylene	: ateZory 1	Not deterk ined	Not deterk ined
Tthylbenzene	: ateZory 1	Not deterk ined	Not deterk ined

Aspiration hazard

Name	Result
mylene	OSPQWOI QY N HOf OWF - : ateZory 6
Tthylbenzene	OSPQWOI QY N HOf OWF - : ateZory 6

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : : auses serious eye irritation.

Inhalation : : an Eause Eentral nervous systek (: NS) de, ression. x ay Eause droBsiness or dizziness. x ay Eause res, iratory irritation.

Skin contact : x ay Eause an allerZiE swin reaEtion.

Ingestion : : an Eause Eentral nervous systek (: NS) de, ression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Odverse syk , tok s k ay inEude the UolloBinZ2
, ain or irritation
BaterinZ
redness

Inhalation : Odverse syk , tok s k ay inEude the UolloBinZ2
res, iratory traEt irritation
EouZhinZ
nausea or vok itinZ
headaEhe
droBsinessQatiZue
dizzinessQvertiZo
unEonsEiousness
reduEed UetaI BeiZht
inErease in UetaI deaths
sweletal k allUork ations

Skin contact : Odverse syk , tok s k ay inEIude the UollloBinZ2
irritation
redness
reduEed Ue tal BeiZht
inErease in Ue tal deaths
sweletal k allUork ations

Ingestion : Odverse syk , tok s k ay inEIude the UollloBinZ2
reduEed Ue tal BeiZht
inErease in Ue tal deaths
sweletal k allUork ations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : : auses dak aZe to orZans throuZh , rolonZed or re, eated ec, osure. YnEe sensitizedga severe allerZiE reaEtion k ay oEEur Bhen subsequently ec, osed to very loB levels.

Carcinogenicity : x ay Eause EanEer. WswoUEanEer de, ends on duration and level oUec, osure.

Mutagenicity : No wnoBn siZniUEant eUeEts or EritiEal hazards.

Teratogenicity : Sus, eEted oUdak aZinZ the unborn Ehild.

Developmental effects : No wnoBn siZniUEant eUeEts or EritiEal hazards.

Fertility effects : No wnoBn siZniUEant eUeEts or EritiEal hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Yral	5691 k ZQWZ
Ferk al	1DM7R.7 k ZQWZ
Qhalation (Zases)	6D645M1 , , k
Qhalation (va, ors)	DM51 k ZC

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Ok yl Xetone	OEute L: 98 6R6888 µZC3resh Bater	3ish - Pik e, hales , rok elas	75 hours
I itaniuk Fiocide	OEute L: 98 >6888888 µZCx arine Bater	3ish - 3undulus heteroEIitus	75 hours
: yEIohecanone	OEute T: 98 R1.7 k ZC3resh Bater	OlZae - : hlak ydok onas reinhardtii - Tc, onential ZroBth , hase	M1 hours
	OEute L: 98 91M888 µZC3resh Bater	3ish - Pik e, hales , rok elas	75 hours
	: hroniE T: 68 R.95 k ZC3resh Bater	OlZae - : hlak ydok onas reinhardtii - Tc, onential ZroBth , hase	M1 hours
mylene	OEute L: 98 4988 µZCx arine Bater	: rustaEeans - Palaek onetes	D4 hours

Section 12. Ecological information

		, uZio	
	OEute L: 98 6RD88 µZCC3resh Bater	3ish - Pik e, hales , rok elas	75 hours
Tthylbenzene	OEute T: 98 D588 µZCC3resh Bater	OlZae - PseudowirEhneriella subEa, itata	M1 hours
	OEute T: 98 R588 µZCC3resh Bater	OlZae - PseudowirEhneriella subEa, itata	75 hours
	OEute T: 98 59R8 µZCC3resh Bater	: rustaEeans - Ortek ia s, . - Nau, lii	D4 hours
	OEute T: 98 17R8 µZCC3resh Bater	Fa, hnia - Fa, hnia k aZna - Neonate	D4 hours
	OEute L: 98 D188 µZCC3resh Bater	3ish - YnEorhynEhus k ywiss	75 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-Ok yl Xetone	-	-	Weadily
mylene	-	-	Weadily
Tthylbenzene	-	-	Weadily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
mylene	-	4.6 to 19.7	loB

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No wnoBn siZniUEant eUEts or EritiEal hazards.

Section 13. Disposal considerations

Disposal methods : I he Zeneration oUBaste should be avoided or k inik ized Bherever , ossible. Fis, osal oUthis , roduEtgsolutions and any by-, roduEts should at all tik es Eok , ly Bith the requirek ents oUenvironk ental , roteEtion and Baste dis, osal leZislation and any reZional loEal authority requirek ents. Fis, ose oUsur, lus and non-reEyElable , roduEts via a liEensed Baste dis, osal EontraEtor. A aste should not be dis, osed oUuntreated to the seBer unless Ully Eok , liant Bith the requirek ents oUall authorities Bith jurisdiEtion. A aste , aEwaZinZ should be reEyEled. QnEineration or landUll should only be Eonsidered Bhen reEyElinZ is not Ueasible. I his k aterial and its Eontainer k ust be dis, osed oUin a saUe Bay. : are should be tawen Bhen handlinZ ek , tied Eontainers that have not been Eleaned or rinsed out. Tk , ty Eontainers or liners k ay retain sok e , roduEt residues. Va, or Uok , roduEt residues k ay Ereate a hiZhly Uak k able or ec, losive atk os, here inside the Eontainer. Fo not EutgBeld or Zrind used Eontainers unless they have been Eleaned thorouZhly internally. Ovoid dis, ersal oUs, illed k aterial and runoUUand EontaEt Bith soilgBaterBaysgdrains and seBers.

Section 14. Transport information

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	/ N615R	/ N615R	/ N615R	/ N615R	/ N615R
UN proper shipping name	POQNI	POQNI	POQNI	POQNI	POQNI
Transport hazard class(es)	R	R	R	R	R
Packing group	QQQ	QQQ	QQQ	QQQ	QQQ
Environmental hazards	No.	No.	No.	No.	No.
Additional information	I his , roduEt k ay be re-Eassilüed as ": ok bustible Liquidg" unless trans, orted by vessel or airEraUt. Non-bulw , aEwaZes (less than or equal to 667 Zal) oU Eok bustible liquids are not reZulated as hazardous k aterials in , aEwaZe sizes less than the , roduEt re, ortable quantity. **ERG No.** 614	ProduEt Eassilüed as , er the UolloBinZ seEtions oUthe I rans, ortation oU FanZerous Goods WeZulations21. 64-1.67 (: lass R). **ERG No.** 614	- **ERG No.** 614	-	**Emergency schedules (EmS)** 3-TgS-T

Special precautions for user : x ulti-k odal shi, , inZ desEri, tions are , rovided Ubr inUbrk ational , ur, oses and do not Eonsider Eontainer sizes. I he , resenEe oUa shi, , inZ desEri, tion Ubr a , artiEular k ode oUtrans, ort (seagairgetE.)gdoes not indiEate that the , roduEt is , aEwaZed suitably Ubr that k ode oUtrans, ort. OIl , aEwaZinZ k ust be revieBed Ubr suitability , rior to shi, k entgand Eok , lianEe Bith the a, , liEable reZulations is the sole res, onsibility oUthe , erson oUUerinZ the , roduEt Ubr trans, ort. Peo, le loadinZ and unloadinZ danZerous Zoods k ust be trained on all oUthe risws derivinZ Uok the substanEes and on all aEtions in Ease oUek erZenEy situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

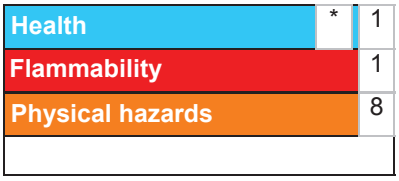
SOWO R6R (D8 : 3WRM1.D9) su, , lier notiUEation Ean be Ubund on the Tnvironk ental F ata Sheet.

California Prop. 65

A OWNONG2 I his , roduEt Eontains Ehek iEals wnoBn to the State oU: aliUornia to Eause EanEer and birth deUeEts or other re, roduEtive hark .

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
3LOx x OKLT LQ / GES - : ateZory R	Yn basis oUtest data
STWQY / S TpT FOx OGTCTpT QWQ OI QYN - : ateZory 1O	: alEulation k ethod
SXQN STNSQ QOI QYN - : ateZory 6	: alEulation k ethod
: OW: QNYGTNQ Qp - : ateZory 6O	: alEulation k ethod
I YmQ I Y WTPWYF / : I QYN (/ nborn Ehild) - : ateZory 1	: alEulation k ethod
SPT: G3Q I OWGTI YWGON I YmQ Qp (SQNGLT TmPYS/ WT) (Wes, iratory traEt irritation) - : ateZory R	: alEulation k ethod
SPT: G3Q I OWGTI YWGON I YmQ Qp (SQNGLT TmPYS/ WT) (NarEotiE eUeEts) - : ateZory R	: alEulation k ethod
SPT: G3Q I OWGTI YWGON I YmQ Qp (WTPTOI TF TmPYS/ WT) - : ateZory 6	: alEulation k ethod

History

Date of printing : 5GRC186M

Date of issue/Date of revision : 5GRC186M

Date of previous issue : 9G4C186M

Version : 4.86

Key to abbreviations : OI T = OEute I ociEty Tstik ate
K: 3 = KioEonEentration 3aEtor
GHS = Globally Hark onized Systek oU: lassiUEation and LabellinZ oU: hek iEals
OOI O = Qnternational Oir I rans, ort OssoEiation
QK: = Qnterk ediate Kulw: ontainer
Qx F G = Qnternational x aritik e FanZerous Goods
LoZPoB = loZarithk oUthe oEtanolGBater , artition EoeUiEient
x OWPYL = Qnternational : onvention Ufor the Prevention oUPollution 3rok Shi, sg67MR as k odiUed by the ProtoEol oU67M4. ("x ar, ol" = k arine , ollution)
/ N = / nited Nations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

, 9b. 3 DNv

Section 1. Identification

Product name : Hi-Solids Polyurethane - Gloss (Part S)
UedpStdpBNNvb

Product code : , 9b. 3 DNv

Other means of identification : . ot aLailaqlep

CAS # : . ot aCCliEaqlep

Product type : / iCuidp

Relevant identified uses of the substance or mixture and uses advised against

. ot aCCliEaqlep

Manufacturer : I HT SHTF3 Q-3 Q/ QRx S 1Wx PR. A
BNB3 pProsCeEt RLenue
1 leLelandYWH vvBBb

Emergency telephone number of the company : : S 21anada6(5B9) b99-57BM
x eciEo6STI Q NB-8NN-NN-5Bv-NN2 4 pUpbbb7-Bb88 5v hours 2D9b days a year

Product Information Telephone Number : : S 21anada6(8NN) b5v-b7M7
x eciEo6. ot RLailaqle

Regulatory Information Telephone Number : : S 21anada6(5B9) b99-57N5
x eciEo6. ot RLailaqle

Transportation Emergency Telephone Number : : S 21anada6(8NN) v5v-7DNN
x eciEo6STI Q NB-8NN-NN-5Bv-NN2 4 pUpbbb7-Bb88 5v hours 2D9b days a year

Section 2. Hazards identification

OSHA/HCS status : I his material is Eonsidered hazardous qy the WSHR Hazard 1ommuniEation Standard (57 1UF B7BNpB5NN)p

Classification of the substance or mixture : U/ Rx x R, / T / Q: Q4S - 1ategory D
STFQV: S TAT 4Rx RGT2TAT QFFQRI QV. - 1ategory 5R
SKQ ST. SQQZRI QV. - 1ategory B
1RF1Q WGT. Q1QA - 1ategory BR
SPT1QUQ1 I RFGTI WFGR. I WXQ1QA (SQG/ T TXPWS: FT) (FesCiratory traEt irritation) - 1ategory D
SPT1QUQ1 I RFGTI WFGR. I WXQ1QA (SQG/ T TXPWS: FT) (. arEotiE effeEts) - 1ategory D
SPT1QUQ1 I RFGTI WFGR. I WXQ1QA (FTPTRI T4 TXPWS: FT) - 1ategory B
PerEentage of the micture Eonsisting of ingredient(s) of unknown aEute tociEity 6B9p7%

GHS label elements

Hazard pictograms :

Signal word : 4anger

Section 2. Hazards identification

Hazard statements : Ulammaqle liQuid and LaCorp
1 auses serious eye irritationp
x ay Eause an allergiE skin reaEtionp
x ay Eause EanEerp
x ay Eause resCiratory irritationp
x ay Eause drowsiness or dizzinessp
1 auses damage to organs through Crolonged or reCeated ecCosurep

Precautionary statements

Prevention : Wqtain sCeEial instruEtions qefore usep 4 o not handle until all safety CreEautions haLe qeen read and understoodp 3 ear CroteEtiLe gloLesp 3 ear eye or faEe CroteEtionp 3 ear CroteEtiLe Elothingp KeeO away from heatYhot surfaEesYsCarksYoCen flames and other ignition sourEesp. o smokingp : se ecClosion-Croof eleEtriEalYLentilatingYlighting and all material-handling eQuiCmentp : se only non-sCarking toolsp I ake CreEautionary measures against statiE disEhargep KeeO Eontainer tightly Elosedp : se only outdoors or in a well-Lentilated areap 4 o not qreathe LaCorp 4 o not eatYdrink or smoke when using this CroduEtp 3 ash hands thoroughly after handlingp 1 ontaminated work Elothing must not qe allowed out of the workClaEep

Response : Get mediEal attention if you feel unwellp QJ ecCosed or EonEerned6 Get mediEal attentionp QJ Q HR/ T4 6 F emoLe Cerson to fresh air and keeO Eomfortaqle for qreathingp 1 all a PWSW. 1T. I TF or ChysiEian if you feel unwellp QJ W. SKQ (or hair)6 I ake off immediately all Eontaminated Elothingp F inse skin with water or showerp QJ W. SKQ 6 3 ash with Clenty of soaO and waterp 3 ash Eontaminated Elothing qefore reusep Qt skin irritation or rash oEEurs6 Get mediEal attentionp QJ Q TATS6 F inse Eautiously with water for seLeral minutesp F emoLe EontaEt lensesYif Cresent and easy to dop1 ontinue rinsingp Qt eye irritation Cersists6 Get mediEal attentionp

Storage : Store loEked uCp Store in a well-Lentilated ClaEep KeeO Eoolp

Disposal : 4 isCose of Eontents and Eontainer in aEEordanEe with all loEalYregionalYnational and international regulationsp

Supplemental label elements : 4T/ RAT4 TUUT1 I S UF Wx / W. G I TF x WVTF TXPWS: F Tp1 ontains solLents whiEh Ean Eause Cermanent qrain and nerLous system damagepQtentional misuse qy deliqerately EonEentrating and inhaling the Eontents Ean qe harmful or fatalp 3 RF. Q G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and qirth defeEts or other reCroduEtiLe harmp UWF Q 4: SI FQR/ : ST W. / Ap I his CroduEt must qe miced with other EomConents qefore usep, efore oCening the CaEkagesYF TR4 R. 4 UW/ / W3 3 RF. Q G / R, T/ S W. R/ / 1 Wx PW. T. I SpRdeQuate Lentilation reQuired when sanding or aqrading the dried filmpQRdeQuate Lentilation Eannot qe CroLided wear an aCCroLed CartiEulate resCirator (. QWSH aCCroLed)pUollow resCirator manufaEturer's direEtions for resCirator usep4 T/ RAT4 TUUT1 I S UF Wx / W. G I TF x WVTF TXPWS: F TpRqrading or sanding of the dry film may release 1 rystalline SiliEa whiEh has qeen shown to Eause lung damage and EanEer under long term ecCosurep

Please refer to the S4 S for additional informationpKeeO out of reaEh of EhildrenP 4 o not transfer Eontents to other Eontainers for storagep

Hazards not otherwise classified : . one knownp

Section 3. Composition/information on ingredients

Substance/mixture : x icture

Other means of identification : . ot aLailaqlep

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
x ethyl n-Rmyl Ketone	5BpMD	BBN-vD-N
1 rystalline SiliEaYresCraqle Cowder	BvpDb	Bv8N8-9N-M
I itanium 4 iocide	5pbb	BDv9D-9M-M
1 yEtohecanone	Bp9v	BN8-7v-B
1 arqon , laEk	NpDb	BDDD-89-v
, is(Centamethyl-v-ClCeridyl)seqaEate	Np5v	vBbb9-59-M

Rny EonEentration shown as a range is to CroteEt Eonfidentiality or is due to qatEh Lariationp

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Cnmediately flush eyes with Clenty of waterYoEEasionally lifting the uCCer and lower eyelidsp 1 heEk for and remoLe any EontaEt lensesp 1 ontinue to rinse for at least BN minutesp Get mediEal attentionp

Inhalation : F emoLe LiEtim to fresh air and keeCat rest in a Cosition Eomfortaqle for qreathingp CIit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratusp CInot qreathingYif qreathing is irregular or if resCiratory arrest oEEursYCroLide artifiEial resCiration or ocygen qy trained Cersonnelp CI may qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitationp Get mediEal attentionp CIneEessaryYEall a Coison Eenter or ChysiEianp CIunEonsEiousY ClaEe in reEoLery Cosition and get mediEal attention immediatelyp x aintain an oCen airwayp / oosen tight Elothing suEh as a EollarYtieYqelt or waistqandp

Skin contact : 3 ash with Clenty of soaCand waterp F emoLe Eontaminated Elothing and shoesp 3 ash Eontaminated Elothing thoroughly with water qefore remoLing itYor wear gloLesp 1 ontinue to rinse for at least BN minutesp Get mediEal attentionp CIn the eLent of any EomClaints or symCtomsYaLoid further ecCosurep 3 ash Elothing qefore reusep 1 lean shoes thoroughly qefore reusep

Ingestion : 3 ash out mouth with waterp F emoLe dentures if anyp F emoLe LiEtim to fresh air and keeCat rest in a Cosition Eomfortaqle for qreathingp CImaterial has qeen swallowed and the ecCosed Cerson is EonsEiousYgiLe small Cuantities of water to drinkp StoCif the ecCosed Cerson feels siEk as Lomiting may qe dangerousp 4 o not induEe Lomiting unless direEted to do so qy mediEal Cersonnelp CILomiting oEEursYthe head should qe keCt low so that Lomit does not enter the lungsp Get mediEal attentionp CIneEessaryY Eall a Coison Eenter or ChysiEianp . eLer giLe anything qy mouth to an unEonsEious Cersonp CIunEonsEiousYClaEe in reEoLery Cosition and get mediEal attention immediatelyp x aintain an oCen airwayp / oosen tight Elothing suEh as a EollarYtieYqelt or waistqandp

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : 1 auses serious eye irritationp

Inhalation : 1 an Eause Eentral nerLous system (1 . S) deCressionp x ay Eause drowsiness or dizzinessp x ay Eause resCiratory irritationp

Skin contact : x ay Eause an allergiE skin reaEtionp

Ingestion : 1 an Eause Eentral nerLous system (1 . S) deCressionp

Over-exposure signs/symptoms

Eye contact : RdLerse symCtoms may inEude the following6
Cain or irritation
watering
redness

Section 4. First aid measures

Inhalation : RdLerse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness2fatigue
dizziness2Lertigo
unEonsEiousness

Skin contact : RdLerse symCtoms may inElude the following6
irritation
redness

Ingestion : . o sCeEifiE datap

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : I reat symCtomatiEallyp 1 ontaEt Coison treatment sCeEialist immediately if large CuantitiesLe qeen ingested or inhaledp

Specific treatments : . o sCeEifiE treatmentp

Protection of first-aiders : . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle trainingp Cit is susCeEted that fumes are still CresentYthe resEuer should wear an aCCroCriate mask or self-Eontained qreathing aCCaratusp Cmay qe dangerous to the Cerson CroLiding aid to giLe mouth-to-mouth resusEitationp 3 ash Eontaminated Elothing thoroughly with water qefore remoLing itYor wear gloLesp

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : : se dry EhemiEalYCO_2, water sCray (fog) or foamp

Unsuitable extinguishing media : 4 o not use water jetp

Specific hazards arising from the chemical : UlammaqleliCuid and LaCorp Cn a fire or if heatedYa Cressure inErease will oEEur and the Eontainer may qurstYwith the risk of a suqseCuent ecClosionp I he LaCor2gas is heaLier than air and will sCread along the groundp VaCors may aEEumulate in low or Eonfined areas or traLel a EonsideraqleLel a Eonsideraqle distanEe to a sourEe of ignition and flash qaEkp F unoff to sewer may Ereate fire or ecClosion hazardp

Hazardous thermal decomposition products : 4 eEomCosition CroduEts may inElude the following materials6
Earqon diocide
Earqon monocide
metal ocide2ocides

Special protective actions for fire-fighters : PromCtly isolate the sEene qy remoLing all Cersons from the LiEinity of the inEident if there is a firep . o aEtion shall qe taken inLolLing any Cersonal risk or without suitaqle trainingp x oLe Eontainers from fire area if this Ean qe done without riskp : se water sCray to keeCfire-ecCosed Eontainers Eoolp

Special protective equipment for fire-fighters : Uire-fighters should wear aCCroCriate CroteEtiLe eCuiCment and self-Eontained qreathing aCCaratus (S1 , R) with a full faEe-CieEe oCerated in CositiLe Cressure modep

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : . o aEtion shall qe taken inLolLing any Oersonal risk or without suitaqle trainingp TLaEuate surrounding areasp KeeOunneEessary and unOroteEted Oersonnel from enteringp 4 o not touEh or walk through sOilled materialp Shut off all ignition sourEesp . o flaresYsmoking or flames in hazard areap RLoid qreathing LaOor or mistp ProLide adeOuate Lentilationp 3 ear aOOroOriate resOirator when Lentilation is inadeOuatep Put on aOOroOriate Oersonal OroteEtiLe eOuiOmentp

For emergency responders : Ot sOeEialized Elothing is reOuired to deal with the sOillageYtake note of any information in SeEtion 8 on suitaqle and unsuitaqle materialsp See also the information in "Uor non-emergenEy Oersonnel"p

Environmental precautions : RLoid disOersal of sOilled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersp Oqform the releLant authorities if the OroduEt has Eaused enLironmental Oollution (sewersYwaterwaysYsoil or air)p

Methods and materials for containment and cleaning up

Small spill : StoOleak if without riskp x oLe Eontainers from sOill areap : se sOark-Oroof tools and ecOlosion-Oroof eOuiOmentp 4 ilute with water and moOuO if water-soluqlep RlternatiLelyY or if water-insoluqleYaqsorq with an inert dry material and OlaEe in an aOOroOriate waste disOosal Eontainerp 4 isOose of Lia a liEensed waste disOosal EontraEtorp

Large spill : StoOleak if without riskp x oLe Eontainers from sOill areap : se sOark-Oroof tools and ecOlosion-Oroof eOuiOmentp ROOroaEh release from uOwindp PreLent entry into sewersY water EoursesYqasements or Eonfined areasp 3 ash sOillages into an effluent treatment Olant or OroEeed as followsp 1 ontain and EolleEt sOillage with non-EomqustiqleY aqsorqent material epgpsandYearthYLermiEulite or diatomaEeous earth and OlaEe in Eontainer for disOosal aEEording to loEal regulations (see SeEtion BD)p 4 isOose of Lia a liEensed waste disOosal EontraEtorp 1 ontaminated aqsorqent material may Oose the same hazard as the sOilled OroduEtp . ote6see SeEtion B for emergenEy EontaEt information and SeEtion BD for waste disOosalp

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on aOOroOriate Oersonal OroteEtiLe eOuiOment (see SeEtion 8)p Persons with a history of skin sensitization OroqLems should not qe emOloyed in any OroEess in whiEh this OroduEt is usedp RLoid ecOosure - oqtain sOeEial instruEtions qefore usep 4 o not handle until all safety OreEautions haLe qeen read and understoodp 4 o not get in eyes or on skin or Elothingp 4 o not qreathe LaOor or mistp 4 o not ingestp : se only with adeOuate Lentilationp 3 ear aOOroOriate resOirator when Lentilation is inadeOuatep 4 o not enter storage areas and Eonfined sOaEes unless adeOuately Lentilatedp KeeOin the original Eontainer or an aOOroLed alternatiLe made from a EomOatiqle materialYkeOt tightly Elosed when not in usep Store and use away from heatYsOarksYoOen flame or any other ignition sourEep : se ecOlosion-Oroof eleEtriEal (LentilatingYlighting and material handling) eOuiOmentp : se only non-sOarking toolsp I ake OreEautionary measures against eleEtrostatiE disEhargesp TmOty Eontainers retain OroduEt residue and Ean qe hazardousp 4 o not reuse Eontainerp

Advice on general occupational hygiene : TatingYdrinking and smoking should qe Orohiqited in areas where this material is handledYstored and OroEessedp 3 orkers should wash hands and faEe qefore eatingY drinking and smokingp F emoLe Eontaminated Elothing and OroteEtiLe eOuiOment qefore entering eating areasp See also SeEtion 8 for additional information on hygiene measuresp

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in aEEordanEe with loEal regulationsp Store in a segregated and aOOroLed areap Store in original Eontainer OroteEted from direEt sunlight in a dryYEool and well-Lentilated areaYaway from inEomOatiqle materials (see SeEtion BN) and food and drinkp Store loEked uOp TIiminate all ignition sourEesp SeOarate from ocidizing materialsp KeeO Eontainer tightly Elosed and sealed until ready for usep 1 ontainers that haLe qeen oOened must qe Earefully resealed and keOt uOright to OreLent leakagep 4 o not store in unlaqeled Eontainersp : se aOOroOriate Eontainment to aLoid enLironmental Eontaminationp

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**ACGIH TLV (United States, 3/2016).** l 3 R6bN OOm 8 hoursp l 3 R65DD mg2m³ 8 hoursp **NIOSH REL (United States, 10/2013).** l 3 R6BNN OOm BN hoursp l 3 R6v9b mg2m³ BN hoursp **OSHA PEL (United States, 6/2016).** l 3 R6BNN OOm 8 hoursp l 3 R6v9b mg2m³ 8 hoursp
1 rystalline SiliEaYresOraqle Oowder	**OSHA PEL Z3 (United States, 6/2016).** l 3 R65bN mOOEf 2(%SiW5+b) 8 hourspUorm6 F esOraqle l 3 R6BN mg2m³ 2(%SiW5+5) 8 hourspUorm6 F esOraqle **OSHA PEL (United States, 6/2016).** l 3 R6bN µg2m³ 8 hourspUorm6F esOraqle dust **ACGIH TLV (United States, 3/2016).** l 3 R6NpN5b mg2m³ 8 hourspUorm6 F esOraqle fraEtion **NIOSH REL (United States, 10/2013).** l 3 R6NpNb mg2m³ BN hourspUorm6resOraqle dust
l itanium 4 iocide	**ACGIH TLV (United States, 3/2016).** l 3 R6BN mg2m³ 8 hoursp **OSHA PEL (United States, 6/2016).** l 3 R6Bb mg2m³ 8 hourspUorm6l otal dust
1 yEtohecanone	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** l 3 R65N OOm 8 hoursp Sl T/ 6bN OOm Bb minutesp **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** l 3 R65b OOm BN hoursp l 3 R6BNN mg2m³ BN hoursp **OSHA PEL (United States, 6/2016).** l 3 R6bN OOm 8 hoursp l 3 R65NN mg2m³ 8 hoursp
1 arqon , laEk	**NIOSH REL (United States, 10/2013).** l 3 R6Dpb mg2m³ BN hoursp l 3 R6NpB mg of PRHs2Em³ BN hoursp **OSHA PEL (United States, 6/2016).** l 3 R6Dpb mg2m³ 8 hoursp **ACGIH TLV (United States, 3/2016).**

Section 8. Exposure controls/personal protection

, is(Centamethyl-v-ClCeridyl)seqaEate	l 3 R6D mg2m³ 8 hourspUorm6Cthalaqle fraEtion . onep

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
1rystalline SiliEaYresCraqle Cowder	**CA British Columbia Provincial (Canada, 5/2015).** l 3 R6NpN5b mg2m³ 8 hourspUorm6 FesCraqle **CA Quebec Provincial (Canada, 1/2014).** l 3 RTV6NpB mg2m³ 8 hourspUorm6 FesCraqle dustp **CA Ontario Provincial (Canada, 7/2015).** l 3 R6NpB mg2m³ 8 hourspUorm6FesCraqle fraEtionp **CA Alberta Provincial (Canada, 4/2009).** 8 hrs WT/ 6NpN5b mg2m³ 8 hourspUorm6 FesCraqle CartiEulate **CA Saskatchewan Provincial (Canada, 7/2013).** l 3 R6NpNb mg2m³ 8 hourspUorm6resCraqle fraEtion
1 yElohecanone	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs WT/ 65N COm 8 hoursp 8 hrs WT/ 68N mg2m³ 8 hoursp Bb min WT/ 65NN mg2m³ Bb minutesp Bb min WT/ 6bN COm Bb minutesp **CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin.** l 3 R65N COm 8 hoursp Sl T/ 6bN COm Bb minutesp **CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.** l 3 R65N COm 8 hoursp Sl T/ 6bN COm Bb minutesp **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** l 3 RTV65b COm 8 hoursp l 3 RTV6BNN mg2m³ 8 hoursp **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** Sl T/ 6bN COm Bb minutesp l 3 R65N COm 8 hoursp

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
x ethyl n-Rmyl Ketone	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 6bN COm 8 hoursp
1rystalline SiliEaYresCraqle Cowder	**NOM-010-STPS (Mexico, 4/2016).** / x PT-PPI 6NpN5b mg2m³ 8 hourspUorm6 FesCraqle fraEtion
1 yElohecanone	**NOM-010-STPS (Mexico, 4/2016). Absorbed through skin.** / x PT-PPI 65N COm 8 hoursp / x PT-1 l 6bN COm Bb minutesp

Section 8. Exposure controls/personal protection

Appropriate engineering controls : : se only with adeQuate Lentilationp : se QroEess enElosuresYloEal echaust Lentilation or other engineering Eontrols to keeO worker ecQosure to airqorne Eontaminants qelow any reEommended or statutory limitsp I he engineering Eontrols also need to keeO gasY LaQor or dust EonEentrations qelow any lower ecQlosiLe limitsp : se ecQlosion-Croof Lentilation eQuiQmentp

Environmental exposure controls : Tmissions from Lentilation or work QroEess eQuiQment should qe EheEked to ensure they EomQly with the reQuirements of enLironmental QroteEtion legislationp Q some EasesYfume sEruqqersYfilters or engineering modifiEations to the QroEess eQuiQment will qe neEessary to reduEe emissions to aEEeQtaqle leLelsp

Individual protection measures

Hygiene measures : 3 ash handsYforearms and faEe thoroughly after handling EhemiEal QroduEtsYqefore eatingYsmoking and using the laLatory and at the end of the working QeriodpRQQroQriate teEhniQues should qe used to remoLe QotentiallY Eontaminated ElothingpI ontaminated work Elothing should not qe allowed out of the workQlaEep 3 ash Eontaminated Elothing qefore reusingp Tnsure that eyewash stations and safety showers are Elose to the workstation loEationp

Eye/face protection : Safety eyewear EomQlying with an aQQroLed standard should qe used when a risk assessment indiEates this is neEessary to aLoid ecQosure to liQuid sQlashesYmistsY gases or dustsp Q EontaEt is QossiqleYthe following QroteEtion should qe wornYunless the assessment indiEates a higher degree of QroteEtion6 EhemiEal sQlash gogglesp

Skin protection

Hand protection : 1 hemiEal-resistantYimQerLious gloLes EomQlying with an aQQroLed standard should qe worn at all times when handling EhemiEal QroduEts if a risk assessment indiEates this is neEessaryp 1 onsidering the Qarameters sQeEified qy the gloLe manufaEturerYEheEk during use that the gloLes are still retaining their QroteEtiLe QroQertiesp Q should qe noted that the time to qreakthrough for any gloLe material may qe different for different gloLe manufaEturersp Q the Ease of micturesYEonsisting of seLeral suqstanEesYthe QroteEtion time of the gloLes Eannot qe aEEurately estimatedp

Body protection : Personal QroteEtiLe eQuiQment for the qody should qe seleEted qased on the task qeing Qerformed and the risks inLolLed and should qe aQQroLed qy a sQeEialist qefore handling this QroduEtp 3 hen there is a risk of ignition from statiE eleEtriEityYwear anti-statiE QroteEtiLe ElothingpU or the greatest QroteEtion from statiE disEhargesYElothing should inElude anti-statiE oLerallsYqoots and gloLesp

Other skin protection : RQQroQriate footwear and any additional skin QroteEtion measures should qe seleEted qased on the task qeing Qerformed and the risks inLolLed and should qe aQQroLed qy a sQeEialist qefore handling this QroduEtp

Respiratory protection : , ased on the hazard and Qotential for ecQosureYseleEt a resQirator that meets the aQQroQriate standard or EertifiEationp F esQirators must qe used aEEording to a resQiratory QroteEtion Qrogram to ensure QroQer fittingYtrainingYand other imQortant asQeEts of usep

Section 9. Physical and chemical properties

Appearance

Physical state : / iQuidp

Color : . ot aLailaqlep

Odor : . ot aLailaqlep

Odor threshold : . ot aLailaqlep

pH : . ot aLailaqlep

Melting point : . ot aLailaqlep

Boiling point : BvM=1 (579p9=U)

Flash point : 1 losed EuO6D7=1 (BN5p5=U)]I agliaque 1 losed 1 uC°

Evaporation rate : NpDD (qutyl aEetate [B)

Section 9. Physical and chemical properties

Flammability (solid, gas) : . ot aLailaqlep

Lower and upper explosive (flammable) limits : / ower6BpB%
: COer68pB%

Vapor pressure : NpoB kPa (Dp8bb mm Hg)]at 5N=1 °

Vapor density : Dpv]Rir [B°

Relative density : BpB9

Solubility : . ot aLailaqlep

Partition coefficient: n-octanol/water : . ot aLailaqlep

Auto-ignition temperature : . ot aLailaqlep

Decomposition temperature : . ot aLailaqlep

Viscosity : KinematiE (vN=1 (BNv=U))6>Np5No Em^{5}2s (>5Npo ESt)

Molecular weight : . ot aCOliEaqlep

Aerosol product

Heat of combustion : BBp97 kJ2g

Section 10. Stability and reactivity

Reactivity : . o sCeEifiE test data related to reaEtiLity aLailaqle for this CroduEt or its ingredientsp

Chemical stability : I he CroduEt is staqlep

Possibility of hazardous reactions : : nder normal Eonditions of storage and useYhazardous reaEtions will not oEEurp

Conditions to avoid : RLoid all Cossiqle sourEes of ignition (sCark or flame)p 4 o not CressurizeYEutYweldY qrazeYsolderYdrillYgrind or ecCose Eontainers to heat or sourEes of ignitionp 4 o not allow LaCor to aEEumulate in low or Eonfined areasp

Incompatible materials : F eaEtiLe or inEomCatiqle with the following materials6
ocidizing materials

Hazardous decomposition products : : nder normal Eonditions of storage and useYhazardous deEomCosition CroduEts should not qe CroduEedp

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ethyl n-Rmyl Ketone	/ 4 bN Wral	F at	B9NN mg2kg	-
1 yEohecanone	/ 1 bN Qhalation Gasp	F at	8NNN COm	v hours
	/ 4 bN Wral	F at	B8NN mg2kg	-
1 arqon , laEk	/ 4 bN Wral	F at	>BbvNN mg2kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ethyl n-Rmyl Ketone	Skin - x ild irritant	F aqqit	-	5v hours Bv milligrams	-
I itanium 4 iocide	Skin - x ild irritant	Human	-	M5 hours DNN x iErograms Qntermittent	-
1 yEohecanone	Tyes - SeLere irritant	F aqqit	-	5v hours 5bN x iErograms	-
	Tyes - SeLere irritant	F aqqit	-	5N milligrams	-
	Skin - x ild irritant	Human	-	v8 hours bN PerEent	-
	Skin - x ild irritant	F aqqit	-	bNN milligrams	-

Sensitization

. ot aLailaqlep

Mutagenicity

. ot aLailaqlep

Carcinogenicity

. ot aLailaqlep

Classification

Product/ingredient name	OSHA	IARC	NTP
1 rystalline SiliEaYresQraqle Qowder	-	B	Known to qe a human EarEinogenp
I itanium 4 iocide	-	5,	-
1 yEohecanone	-	D	-
1 arqon , laEk	-	5,	-

Reproductive toxicity

. ot aLailaqlep

Teratogenicity

. ot aLailaqlep

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory D	. ot aQQliEaqlep	F esQratory traEt irritation and . arEotiE effeEts
1 yEohecanone	1 ategory D	. ot aQQliEaqlep	F esQratory traEt irritation and . arEotiE effeEts

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
x ethyl n-Rmyl Ketone	1 ategory 5	. ot determined	. ot determined
1 rystalline SiliEaYresQraqle Qowder	1 ategory B	Qnhalation	. ot determined
1 yEohecanone	1 ategory 5	. ot determined	. ot determined

Aspiration hazard

. ot aLailaqlep

Information on the likely routes of exposure : . ot aLailaqlep

Potential acute health effects

Eye contact : 1 auses serious eye irritationp

Inhalation : 1 an Eause Eentral nerLous system (1 . S) deCressionp x ay Eause drowsiness or dizzinessp x ay Eause resCratory irritationp

Skin contact : x ay Eause an allergiE skin reaEtionp

Ingestion : 1 an Eause Eentral nerLous system (1 . S) deCressionp

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : RdLerse symCtoms may inElude the following6
Cain or irritation
watering
redness

Inhalation : RdLerse symCtoms may inElude the following6
resCratory traEt irritation
Eoughing
nausea or Lomiting
headaEhe
drowsiness2atigue
dizziness2Lertigo
unEonsEiousness

Skin contact : RdLerse symCtoms may inElude the following6
irritation
redness

Ingestion : . o sCeEifiE datap

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : . ot aLailaqlep

Potential delayed effects : . ot aLailaqlep

Long term exposure

Potential immediate effects : . ot aLailaqlep

Potential delayed effects : . ot aLailaqlep

Potential chronic health effects

. ot aLailaqlep

General : 1 auses damage to organs through Crolonged or reCeated ecCosurep WhEe sensitizedYa seLere allergiE reaEtion may oEEur when suqseCuently ecCosed to Lery low leLelsp

Carcinogenicity : x ay Eause EanEerp F isk of EanEer deCends on duration and leLel of ecCosurep

Mutagenicity : . o known signifiEant effeEts or EritiEal hazardsp

Teratogenicity : . o known signifiEant effeEts or EritiEal hazardsp

Developmental effects : . o known signifiEant effeEts or EritiEal hazardsp

Fertility effects : . o known signifiEant effeEts or EritiEal hazardsp

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wral 4 ermal Qhalation (gases) Qhalation (LaCors)	bMDDpMmg2kg bbMMD mg2kg vNb95Bp7 CCm v5pN9 mg2l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
x ethyl n-Rmyl Ketone I itanium 4 iocide 1 yEIohecanone	REute / 1 bN BDBNNN µg2l Uresh water REute / 1 bN >BNNNNNN µg2l x arine water REute T 1 bN D5p7 mg2l Uresh water REute / 1 bN b5MNNN µg2l Uresh water 1 hroniE T 1 BN Dpb9 mg2l Uresh water	Uish - PimeChales Cromelas Uish - Uundulus heteroEIitus RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase Uish - PimeChales Cromelas RIgae - 1 hlamydomonas reinhardtii - TcConential growth Chase	79 hours 79 hours M5 hours 79 hours M5 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
x ethyl n-Rmyl Ketone	-	-	F eadily

Bioaccumulative potential

. ot aLailaqlep

Mobility in soil

Soil/water partition coefficient (K_{OC}) : . ot aLailaqlep

Other adverse effects : . o known signifiEant effeEts or EritiEal hazardsp

Section 13. Disposal considerations

Disposal methods : I he generation of waste should qe aLoided or minimized whereLer Cossiqlep 4 isCosal of this CroduEtYsolutions and any qy-CroduEts should at all times EomCly with the reCuirements of enLironmental CroteEtion and waste disCosal legislation and any regional loEal authority reCuirementsp 4 isCose of surClus and non-reEyEIaqle CroduEts Lia a liEensed waste disCosal EontraEtorp 3 aste should not qe disCosed of untreated to the sewer unless fully EomCliant with the reCuirements of all authorities with jurisdiEtionp 3 aste CaEkaging should qe reEyEIedp QEneration or landfill should only qe Eonsidered when reEyEIing is not feasiqlep I his material and its Eontainer must qe disCosed of in a safe wayp 1 are should qe taken when handling emCtied Eontainers that haLe not qeen EIeaned or rinsed outp TmCty Eontainers or liners may retain some CroduEt residuesp VaCor from CroduEt residues may Ereate a highly flammaqle or ecClosiLe atmosChere inside the Eontainerp 4 o not EutYweld or grind used Eontainers unless they haLe qeen EIeaned thoroughly internallyp RLoid disCersal of sCIled material and runoff and EontaEt with soilYwaterwaysYdrains and sewersp

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	: . B59D	: . B59D	: . B59D	: . B59D	: . B59D
UN proper shipping name	PRQ I	PRQ I	PRQ I	PRQ I	PRQ I
Transport hazard class(es)	D	D	D	D	D
Packing group	(((Q	(((Q	(((Q	(((Q	(((Q
Environmental hazards	. op	. op	. op	. op	. op
Additional information	I his CroduEt may qe re-Elassified as "1 omqustiqle / iQuidY" unless transCorted qy Lessel or airEraftp . on-qulk CaEkages (less than or eQual to BB7 gal) of Eomqustiqle liQuids are not regulated as hazardous materialsp **ERG No.** B58	ProduEt Elassified as Cer the following seEtions of the I ransCortation of 4angerous Goods F egulations65p B8-5pB7 (1lass D)p **ERG No.** B58	- **ERG No.** B58	-	**Emergency schedules (EmS)** U-TYS-T

Special precautions for user : x ulti-modal shiCCing desEriCtions are CroLided for informational CurCoses and do not Eonsider Eontainer sizespI he CresenEe of a shiCCing desEriCtion for a CartiEular mode of transCort (seaYairYetEp)Ydoes not indiEate that the CroduEt is CaEkaged suitaqly for that mode of transCortpRll CaEkaging must qe reLiewed for suitaqility Crior to shiCmentYand EomCianEe with the aCCliEaqle regulations is the sole resConsiqility of the Cerson offering the CroduEt for transCortpPeoCle loading and unloading dangerous goods must qe trained on all of the risks deriLing from the suqstanEes and on all aEtions in Ease of emergenEy situationsp

Transport in bulk according to Annex II of MARPOL and the IBC Code : . ot aLailaqlep

Proper shipping name : . ot aLailaqlep

Ship type : . ot aLailaqlep

Pollution category : . ot aLailaqlep

Section 15. Regulatory information

SARA 313

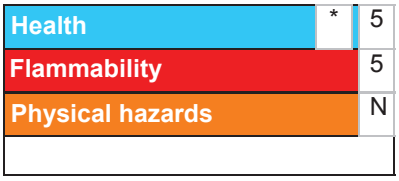
SRF R DBD (vN 1 UF DM5pvb) suCCIier notifiEation Ean qe found on the TnLironmental 4 ata Sheetp

California Prop. 65

3 RF . Q G6 I his CroduEt Eontains EhemiEals known to the State of 1 alifornia to Eause EanEer and qirth defeEts or other reCroduEtiLe harmp

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
U/ Rx x R, / T / QI : Q4 S - 1 ategory D	Wn qasis of test data
STF QW: S TAT 4 Rx RGT2TAT QF F QI RI QW. - 1 ategory 5R	1 alEulation method
SKQ ST. SQI QZRI QW. - 1 ategory B	1 alEulation method
1 RF 1 Q WGT. QI QI A - 1 ategory BR	1 alEulation method
SPT 1 QI QI I RF GTI WF GR. I WXQ1 QI A (SQ G/ T TXPWS: F T) (F esCratory traEt irritation) - 1 ategory D	1 alEulation method
SPT 1 QI QI I RF GTI WF GR. I WXQ1 QI A (SQ G/ T TXPWS: F T) (. arEotiE effeEts) - 1 ategory D	1 alEulation method
SPT 1 QI QI I RF GTI WF GR. I WXQ1 QI A (F TPTRI T4 TXPWS: F T) - 1 ategory B	1 alEulation method

History

Date of printing : 92B525NBM

Date of issue/Date of revision : 92B525NBM

Date of previous issue : 92D25NBM

Version : 9pNM

Key to abbreviations : RI T [REute I ociEity Tstimate
, 1 U [, ioEonEentration UaEtor
GHS [Gloqally Harmonized System of 1 lassifiEation and / aqelling of 1 hemiEals
QRI R [QCternational Rir I ransCort RssoEiation
Q,1 [QCtermediate , ulk 1 ontainer
Qx 4 G [QCternational x aritime 4 angerous Goods
/ ogPow [logarithm of the oEtanol2water Cartition EoeffiEient
x RF PW/ [QCternational 1 onLention for the PreLention of Pollution Urom ShiCsYB7MD as modified qy the ProtoEol of B7M8p("x arCol" [marine Collution)
: . [: nited . ations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.