SAFETY DATA SHEET



Date of issue/Date of revision 25 April 2016 Version 7

Section 1. Identification		
Product name	: EPOXY HORIZON GRAY ENAMEL	
Product code	: KLE16005	
Other means of identification	: Not available.	
Product type	: Liquid.	
Relevant identified uses of	the substance or mixture and uses advised against	
Product use	: Industrial applications, Used by spraying.	
Use of the substance/ mixture	: Coating.	
Uses advised against	: Not applicable.	
Manufacturer	: PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272	
Emergency telephone number	: (412) 434-4515 (U.S.) (514) 645-1320 (Canada) 01-800-00-21-400 (Mexico)	
Technical Phone Number	: 888-977-4762	

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 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 37.1%

GHS label elements

Version 7

Product name EPOXY HORIZON GRAY ENAMEL

Section 2. Hazards identification

Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapor. Causes serious eye irritation. Causes skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. May cause drowsiness or dizziness. May cause 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. Wear respiratory protection. 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. 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: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or physician. 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	: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
lazards not otherwise classified	: Prolonged or repeated contact may dry skin and cause irritation.

Product name EPOXY HORIZON GRAY ENAMEL

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: EPOXY HORIZON GRAY ENAMEL

Ingredient name	%	CAS number
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymethylene)]bis[oxirane]	≥20 - ≤50	25036-25-3
titanium dioxide	≥20 - ≤50	13463-67-7
1-methoxy-2-propanol	≥20 - ≤50	107-98-2
n-butyl acetate	≥5.0 - ≤10	123-86-4
Epoxy Resin	<1.0	Not available.
ethylbenzene	<1.0	100-41-4
carbon black, respirable powder	≤1.0	1333-86-4

SUB codes represent substances without registered CAS Numbers.

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 or the environment and hence require reporting in this section.

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

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact	 Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

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 allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact :	Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion :	Can cause central nervous system (CNS) depression.
Over-exposure signs/symptor	<u>ns</u>

Product name EPOXY HORIZON GRAY ENAMEL

Section 4. First aid measures

Eye contact	: Adverse symptoms may include the following:
	pain or irritation
	watering
	redness
Inhalation	 Adverse symptoms may include the following: wheezing and breathing difficulties
	asthma
	nausea or vomiting
	headache
	drowsiness/fatigue dizziness/vertigo
	unconsciousness
Skin contact	: Adverse symptoms may include the following:
Skill contact	irritation
	redness
	dryness
	cracking
Ingestion	: No specific data.
Indication of immediate me	dical 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. 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. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Product name EPOXY HORIZON GRAY ENAMEL

Section 5. Fire-fighting measures

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	:	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 co	ont	ainment 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

information and Section 13 for waste disposal.

licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact

Product name EPOXY HORIZON GRAY ENAMEL

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 or asthma, allergies or chronic or recurrent respiratory disease 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.
Special precautions	: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
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	: Do not store above the following temperature: 35°C (95°F). 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

Ingredient name	Exposure limits
henol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]	None.
titanium dioxide	OSHA PEL (United States, 2/2013).
	TWA: 15 mg/m ³ 8 hours. Form: Total dust
	ACGIH TLV (United States, 3/2015).
	TWA: 10 mg/m ³ 8 hours.
1-methoxy-2-propanol	ACGIH TLV (United States, 3/2015).
	STEL: 369 mg/m ³ 15 minutes.
	STEL: 100 ppm 15 minutes.
	TWA: 184 mg/m ³ 8 hours.
	United States Page: 6/15

Product name EPOXY HORIZON GRAY ENAMEL

Section 8. Exposure controls/personal protection

	TWA: 50 ppm 8 hours.
n-butyl acetate	ACGIH TLV (United States, 3/2015).
	STEL: 200 ppm 15 minutes.
	TWA: 150 ppm 8 hours.
	OSHA PEL (United States, 2/2013).
	TWA: 710 mg/m ³ 8 hours.
	TWA: 150 ppm 8 hours.
Epoxy Resin	None.
ethylbenzene	ACGIH TLV (United States, 3/2015).
	TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 2/2013).
	TWA: 435 mg/m ³ 8 hours.
	TWA: 100 ppm 8 hours.
carbon black, respirable powder	ACGIH TLV (United States, 3/2015).
	TWA: 3 mg/m ³ 8 hours. Form: Inhalable
	fraction
	OSHA PEL (United States, 2/2013).
	TWA: 3.5 mg/m ³ 8 hours.
Key to abbreviatio	ns
A = Acceptable Maximum Peak	S = Potential skin absorption
CCIH - Amorican Conference of Covernmental Industrial Hygiopists	SP - Pospiratory consistration

~		0	
ACGIH	 American Conference of Governmental Industrial Hygienists. 	SR	 Respiratory sensitization
С	= Ceiling Limit	SS	 Skin sensitization
F	= Fume	STEL	 Short term Exposure limit values
IPEL	 Internal Permissible Exposure Limit 	TD	= Total dust
OSHA	 Occupational Safety and Health Administration. 	TLV	= Threshold Limit Value
R	= Respirable	TWA	 Time Weighted Average
7	- OSHA 20 CER 1010 1200 Subpart 7 Tayla and Hazardaya Substances		

Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures	:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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

Product name EPOXY HORIZON GRAY ENAMEL

Section 8. Exposure controls/personal protection

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 Skin protection	: Chemical splash goggles.
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.
Gloves	: butyl rubber
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	: By spraying: air-fed respirator. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Not available.
Odor	: Characteristic.
Odor threshold	: Not available.
рН	: Not available.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 27.78°C (82°F)
Material supports combustion.	: Yes.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Lower: 1.56% Upper: 9.02%

Product name EPOXY HORIZON GRAY ENAMEL

Section 9. Physical and chemical properties

Evaporation rate	: 0.76 (butyl acetate = 1)
Vapor pressure	: 1.5 kPa (11.4 mm Hg) [room temperature]
Vapor density	: Not available.
Relative density	: 1.29
Density(lbs / gal)	: 10.77
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n- octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 49% (v/v), 34.442% (w/w)
% Solid. (w/w)	: 65.558

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	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
titanium dioxide	LD50 Oral	Rat	>11 g/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
-	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10.768 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	4000 ppm	4 hours
, ,	LD50 Dermal	Rabbit	17.8 g/kg	_
	LD50 Oral	Rat	3.5 g/kg	-
carbon black, respirable	LD50 Dermal	Rabbit	>3 g/kg	-
			United States	Page: 9/15

Product name EPOXY HORIZON GRAY ENAMEL

Section 11. Toxicological information

Section 11. Toxico	logical	inform	ation			
powder	LD50 Oral			Rat	>15400 mg/kg	-
Conclusion/Summary	: There are	e no data a	vailable on th	ne mixture itself.		
Irritation/Corrosion						
Conclusion/Summary						
Skin	: There are	e no data a	vailable on th	ne mixture itself.		
Eyes	: There are	e no data a	vailable on th	ne mixture itself.		
Respiratory	: There are	e no data a	vailable on th	ne mixture itself.		
<u>Sensitization</u>						
Conclusion/Summary						
Skin	: There are	e no data a	vailable on th	ne mixture itself.		
Respiratory	: There are	e no data a	vailable on th	ne mixture itself.		
<u>Mutagenicity</u>						
Conclusion/Summary	: There are	e no data a	vailable on th	ne mixture itself.		
<u>Carcinogenicity</u>						
Conclusion/Summary	: There are	e no data a	vailable on th	ne mixture itself.		
Classification						
Product/ingredient name	OSHA	IARC	NTP			
titanium dioxide	-	2B	-			
ethylbenzene	-	2B	-			
carbon black, respirable powder	-	2B	-			
Carcinogen Classification	n code:	ļ	Į			
IARC: 1, 2A, 2B, 3, NTP: Known to be OSHA: + Not listed/not regu	e a human carc	inogen; Reas	sonably anticip	ated to be a human	carcinogen	
Reproductive toxicity						
Conclusion/Summary	: There are	no data av	ailable on the	e mixture itself.		
<u>Feratogenicity</u>						
Conclusion/Summary	: There are	no data av	ailable on the	e mixture itself.		
Specific target organ toxicity	<u> (single exp</u>	<u>osure)</u>				
Name						Category
					Category 3	
n-butyl acetate						Category 3
Epoxy Resin						Category 3
Specific target organ toxicity	<u>(repeated e</u>	<u>xposure)</u>				O a fa a a a a
Name						Category
1-methoxy-2-propanol						Category 2
ethylbenzene						Category 2

Product name EPOXY HORIZON GRAY ENAMEL

Section 11. Toxicological information

Target organs

: Contains material which causes damage to the following organs: brain. Contains material which may cause damage to the following organs: kidneys, lungs, liver, heart, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Aspiration hazard

Name		Result
ethylbenzene		ASPIRATION HAZARD - Category 1
nformation on the likely ro	utes of exposure	I
Potential acute health effe	<u>cts</u>	
Eye contact	: Causes serious eye irritation.	
Inhalation		m (CNS) depression. May cause drowsiness or asthma symptoms or breathing difficulties if inhaled.
Skin contact	: Causes skin irritation. Defatting t	o the skin. May cause an allergic skin reaction.
Ingestion	: Can cause central nervous system	m (CNS) depression.
Over-exposure signs/sym	<u>ptoms</u>	
Eye contact	: Adverse symptoms may include t pain or irritation watering redness	-
Inhalation	: Adverse symptoms may include t wheezing and breathing difficultie asthma nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness	
Skin contact	: Adverse symptoms may include t irritation redness dryness cracking	he following:
Ingestion	: No specific data.	
elayed and immediate effe	ects and also chronic effects from sh	<u>nort and long term exposure</u>
Conclusion/Summary	concentrations in excess of the si health effects such as mucous m effects on the kidneys, liver and o headache, dizziness, fatigue, mus loss of consciousness. Solvents through the skin. There is some vapors in combination with consta expected from exposure to noise irritation and reversible damage. This takes into account, where kr	e mixture itself. Exposure to component solvent vapor tated occupational exposure limit may result in adverse embrane and respiratory system irritation and adverse central nervous system. Symptoms and signs include scular weakness, drowsiness and, in extreme cases, may cause some of the above effects by absorption evidence that repeated exposure to organic solvent ant loud noise can cause greater hearing loss than alone. If splashed in the eyes, the liquid may cause Ingestion may cause nausea, diarrhea and vomiting. nown, delayed and immediate effects and also chronic -term and long-term exposure by oral, inhalation and ye contact.
		United States Page: 11/15

Version 7

Product name EPOXY HORIZON GRAY ENAMEL

Section 11. Toxicological information

Short term exposure		
Potential immediate effects	1	There are no data available on the mixture itself.
Potential delayed effects	1	There are no data available on the mixture itself.
<u>Long term exposure</u>		
Potential immediate effects	:	There are no data available on the mixture itself.
Potential delayed effects	1	There are no data available on the mixture itself.
Potential chronic health effe	octs	
General	:	May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	1	No known significant effects or critical hazards.
Teratogenicity	1	No known significant effects or critical hazards.
Developmental effects	1	No known significant effects or critical hazards.
Fertility effects	1	No known significant effects or critical hazards.
Numerical measures of toxic	ity	
Acute toxicity estimates		
Not available		

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish - Lepomis macrochirus - Young of the year	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
-butyl acetate	1.78	-	low
ethylbenzene	3.15	79.43	low

Mobility in soil

officer officers in age. 12		United States	Page: 12/
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Product name EPOXY HORIZON GRAY ENAMEL

Section 12. Ecological information

Soil/water partition coefficient (Koc)

: Not available.

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.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

	1	1	1
	DOT	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group		Ш	111
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Phenol, 4,4'- (1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4, 1-phenyleneoxymethylene)]bis [oxirane])	Not applicable.
Product RQ (lbs)	12367.4	Not applicable.	Not applicable.
RQ substances	(xylene)	Not applicable.	Not applicable.

14. Transport information

Additional in	formation
DOT	: Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
IMDG	: The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
	United States Page: 13/15

Date of issue 25 April 2016

Product name EPOXY HORIZON GRAY ENAMEL

14. Transport information

ΙΑΤΑ

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

2

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification

: Fire hazard

Immediate (acute) health hazard Delayed (chronic) health hazard

Composition/information on ingredients

Name		Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymethylene)]bis [oxirane]	Yes.	No.	No.	Yes.	No.
titanium dioxide	No.	No.	No.	No.	Yes.
1-methoxy-2-propanol	Yes.	No.	No.	Yes.	Yes.
n-butyl acetate	Yes.	No.	No.	Yes.	No.
Epoxy Resin	Yes.	No.	No.	Yes.	No.
ethylbenzene	Yes.	No.	No.	Yes.	Yes.
carbon black, respirable powder	Yes.	No.	No.	No.	Yes.

SARA 313

Chemical name Supplier notification : ethylbenzene

CAS number Concentration 100-41-4 0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

United States Page: 14/15

Product name EPOXY HORIZON GRAY ENAMEL

Section 16. Other information

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

Health : 2 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

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 MSDSs 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.

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

National Fire Protection Ass	sociation (U.S.A.)		
Health : 2 Flamma	ability : 3 Instability : 0		
Date of previous issue	: 12/7/2015		
Organization that prepared the MSDS	: EHS		
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 = Internediate 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		

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.