Safety Data Sheet

Document Group:	24-8181-0	**Version Number:**	4.00
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SECTION 1: Identification

1.1. Product identifier
3M™ MarHyde® Liquid Hardener 5405

Product Identification Numbers
LB-K100-0558-3, 41-3701-1501-0, 70-0080-0383-5

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Hardener

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Organic Peroxide: Type D.
Flammable Liquid: Category 4.
Acute Toxicity (oral): Category 4.
Acute Toxicity (inhalation): Category 4.
Serious Eye Damage/Irritation: Category 1.
Skin Corrosion/Irritation: Category 1C.

2.2. Label elements
Signal word
Danger

Symbols

Flame | Corrosion | Exclamation mark |

Pictograms

Hazard Statements
Heating may cause a fire.
Combustible liquid.

Harmful if swallowed.
Causes severe skin burns and eye damage.
Harmful if inhaled.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep away from clothing and other combustible materials.
Keep only in original container.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Wash contaminated clothing before reuse.
Rinse mouth.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Call a POISON CENTER or doctor/physician if you feel unwell.
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:
Protect from sunlight.
Store in a well-ventilated place.
Store at temperatures not exceeding 5C/40F. Keep cool.
Store locked up.
Store away from other materials.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified
May cause chemical gastrointestinal burns.

64% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Dimethyl Phthalate	131-11-3	30 - 60 Trade Secret *
Methyl Ethyl Ketone Peroxide	1338-23-4	15 - 40 Trade Secret *
2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate	6846-50-0	10 - 30 Trade Secret *
Water	7732-18-5	<= 2 Trade Secret *
Hydrogen Peroxide	7722-84-1	<= 2 Trade Secret *
Methyl Ethyl Ketone	78-93-3	<= 2 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Rinse mouth. Do not induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

Hazardous Decomposition or By-Products

Substance	Condition
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

Toxic Vapor, Gas, Particulate	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Protect from sunlight. Store away from heat. Store at temperatures not exceeding 5C/40F. Keep cool. Keep only in original container. Store away from acids. Store away from oxidizing agents. Store away from other materials. Keep/store away from clothing and other combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Dimethyl Phthalate	131-11-3	ACGIH	TWA:5 mg/m3	
Dimethyl Phthalate	131-11-3	OSHA	TWA:5 mg/m3	
Methyl Ethyl Ketone Peroxide	1338-23-4	ACGIH	CEIL:0.2 ppm	
Hydrogen Peroxide	7722-84-1	ACGIH	TWA:1 ppm	A3: Confirmed animal carcin.

Hydrogen Peroxide	7722-84-1	OSHA	TWA:1.4 mg/m3(1 ppm)	
Methyl Ethyl Ketone	78-93-3	ACGIH	TWA:200 ppm;STEL:300 ppm	
Methyl Ethyl Ketone	78-93-3	OSHA	TWA:590 mg/m3(200 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Wear eye/face protection. Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Full Face Shield

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Wear protective gloves.
Gloves made from the following material(s) are recommended: Butyl Rubber
Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Odor, Color, Grade:	Red liquid with faint ketone odor.
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	*No Data Available*
Flash Point	180 ºF [*Test Method:* Closed Cup]

Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	*No Data Available*
Vapor Density	> 1 [*Ref Std:* AIR=1]
Density	1 g/m3 [@ 20 ºC]
Specific Gravity	1.0 [@ 20 ºC] [*Ref Std:* WATER=1]
Solubility in Water	Negligible
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Hazardous Air Pollutants	43.0 % weight [*Test Method:* Calculated]
Volatile Organic Compounds	20 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	2.0 % weight [*Test Method:* calculated per CARB title 2]
Percent volatile	3 %
VOC Less H2O & Exempt Solvents	21 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Solids Content	0 % weight

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Unstable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat
Sparks and/or flames
Light

10.5. Incompatible materials
Strong acids
Strong oxidizing agents
Alkali and alkaline earth metals
Reducing agents
Accelerators
Metal powder
Amines

10.6. Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
Harmful if inhaled.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:
Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:
Harmful if swallowed. Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

Target Organ Effects:

Single exposure may cause:
Dermal Effects: Signs/symptoms may include changes in skin pigmentation and/or coloration.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE 10 - 20 mg/l
Overall product	Ingestion		No data available; calculated ATE 300 - 2,000 mg/kg
Dimethyl Phthalate	Inhalation-Dust/Mist (4 hours)	Other	LC50 > 15.1 mg/l
Dimethyl Phthalate	Dermal	Rabbit	LD50 > 11,940 mg/kg
Dimethyl Phthalate	Ingestion	Rat	LD50 6,800 mg/kg
Methyl Ethyl Ketone Peroxide	Dermal	Rabbit	LD50 4,000 mg/kg
Methyl Ethyl Ketone Peroxide	Inhalation-Vapor (4 hours)	Rat	LC50 15.4 mg/l
Methyl Ethyl Ketone Peroxide	Ingestion	Rat	LD50 484 mg/kg
2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate	Dermal	Guinea pig	LD50 > 18,800 mg/kg
2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 8 mg/l

2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate	Ingestion	Rat	LD50 > 3,200 mg/kg
Methyl Ethyl Ketone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Methyl Ethyl Ketone	Inhalation-Vapor (4 hours)	Rat	LC50 34.5 mg/l
Methyl Ethyl Ketone	Ingestion	Rat	LD50 2,737 mg/kg
Hydrogen Peroxide	Dermal	Rabbit	LD50 > 2,000 mg/kg
Hydrogen Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 2 mg/l
Hydrogen Peroxide	Ingestion	Rat	LD50 1,193 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl Ethyl Ketone Peroxide	Rabbit	Corrosive
Methyl Ethyl Ketone	Rabbit	Minimal irritation
Hydrogen Peroxide	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Methyl Ethyl Ketone Peroxide	Human	Corrosive
Methyl Ethyl Ketone	Rabbit	Severe irritant
Hydrogen Peroxide	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
Methyl Ethyl Ketone Peroxide	Human	Some positive data exist, but the data are not sufficient for classification
Hydrogen Peroxide	Guinea pig	Not sensitizing

Respiratory Sensitization

Name	Species	Value

Germ Cell Mutagenicity

Name	Route	Value
Methyl Ethyl Ketone Peroxide	In vivo	Not mutagenic
Methyl Ethyl Ketone Peroxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methyl Ethyl Ketone	In Vitro	Not mutagenic
Hydrogen Peroxide	In vivo	Not mutagenic
Hydrogen Peroxide	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Methyl Ethyl Ketone Peroxide	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Methyl Ethyl Ketone	Inhalation	Human	Not carcinogenic
Hydrogen Peroxide	Dermal	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Hydrogen Peroxide	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Methyl Ethyl Ketone Peroxide	Dermal	Not toxic to female reproduction	Rat	NOAEL 70 mg/kg/day	13 weeks

Methyl Ethyl Ketone Peroxide	Ingestion	Not toxic to female reproduction	Rat	NOAEL 75 mg/kg/day	premating & during gestation
Methyl Ethyl Ketone Peroxide	Ingestion	Not toxic to male reproduction	Rat	NOAEL 75 mg/kg/day	28 days
Methyl Ethyl Ketone Peroxide	Dermal	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 70 mg/kg/day	13 weeks
Methyl Ethyl Ketone Peroxide	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 50 mg/kg/day	premating & during gestation
Methyl Ethyl Ketone	Inhalation	Not toxic to female reproduction	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	Not toxic to male reproduction	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	LOAEL 8.8 mg/l	during gestation
Hydrogen Peroxide	Ingestion	Some positive female reproductive data exist, but the data are not sufficient for classification	Rat	LOAEL 5 mg/kg/day	6 months
Hydrogen Peroxide	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	LOAEL 5 mg/kg/day	6 months
Hydrogen Peroxide	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	LOAEL 5 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Ethyl Ketone Peroxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Methyl Ethyl Ketone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classification	NOAEL Not available	
Methyl Ethyl Ketone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	not applicable
Methyl Ethyl Ketone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,080 mg/kg	not applicable
Hydrogen Peroxide	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	
Hydrogen Peroxide	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Ethyl Ketone Peroxide	Dermal	heart | hematopoietic system | liver | immune system | nervous system | kidney and/or bladder | respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 70 mg/kg/day	13 weeks
Methyl Ethyl Ketone Peroxide	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for	Rat	LOAEL 97 mg/kg/day	7 weeks

			classification			
Methyl Ethyl Ketone	Dermal	nervous system	All data are negative	Guinea pig	NOAEL Not available	31 weeks
Methyl Ethyl Ketone	Inhalation	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles	All data are negative	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	7 days
Methyl Ethyl Ketone	Ingestion	nervous system	All data are negative	Rat	NOAEL 173 mg/kg/day	90 days
Hydrogen Peroxide	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOEL 0.005 mg/kg/day	6 months
Hydrogen Peroxide	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	35 weeks

Aspiration Hazard

Name	Value

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit **http://3M.com/Transportinfo** or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Dimethyl Phthalate	131-11-3	30 - 60

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 3 **Flammability:** 2 **Instability:** 2 **Special Hazards:** Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 3 **Flammability:** 2 **Physical Hazard:** 2 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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