

SAFETY DATA SHEET

RIBB Primer, Side A
Sept 20, 2018

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

Product Name: Ghemco RIBB Primer, Side A
Revision Date: Sept 20, 2018 **Date Printed:** Sept 20, 2018
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Ghemco
Address: PO Box 3977, Santa Fe Springs, CA, US 90670
Emergency Phone: (562) 250-4745
Information Phone: Chemtrec: (800) 424-9300 (Account CCN837338) or International (703) 527-3887 (Account CCN837338)

Product/Recommended Uses: For Further Information, Refer to the Product Technical Data Sheet.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Acute aquatic toxicity - Category 3
Acute toxicity Dermal - Category 5
Acute toxicity Oral - Category 4
Chronic aquatic toxicity - Category 2

Pictograms**Signal Word**

Warning

Hazardous Statements - Health

H313 - May be harmful in contact with skin
H302 - Harmful if swallowed

Hazardous Statements - Environmental

H402 - Harmful to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.

Precautionary Statements - Prevention

P273 - Avoid release to the environment.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

Precautionary Statements - Response

P312 - Call a POISON CENTER/doctor if you feel unwell.

P301 + P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 - Rinse mouth.

P391 - Collect spillage.

Precautionary Statements - Storage

No precautionary statement available.

Precautionary Statements - Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0025085-99-8	BISPHENOL A EPOXY RESIN	21% - 38%
0001314-13-2	ZINC OXIDE	0.6% - 1.1%
0014808-60-7	SILICA, CRYSTALLINE	0.3% - 0.5%
0007440-43-9	CADMIUM	Trace
0007439-92-1	LEAD	Trace

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If exposed/feel unwell/concerned: Call a POISON CENTER/doctor.

Skin Contact

Rinse/wash with lukewarm, gently flowing water and mild soap for 15-20 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

Eye Contact

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

Give 1 or 2 glasses of milk or water to drink and refer person to medical personnel. Do not give anything by mouth to an unconscious person.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide water spray or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Specific Hazards in Case of Fire

Excessive pressure or temperature may cause explosive rupture of containers.

Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Care should always be exercised in dust/mist areas.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended Equipment

Appropriate dust or face mask to eliminate breathing foam dust particulates.

Personal Precautions

Avoid breathing vapors. Avoid contact with skin, eyes or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Soak up material with absorbent and shovel into a chemical waste container. Cover container, but do not seal, and remove from work area. Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, call CHEMTREC (Chemical Transportation Emergency Center) at 800-424-9300.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use.

Do not get in eyes, on skin or on clothing.

Do not breathe vapors or mists.

Use good personal hygiene practices.

Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

Eyewash stations and showers should be available in areas where this material is used and stored.

Individuals with existing respiratory disease such as chronic bronchitis, emphysema, or asthma should not be exposed.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Store in tightly sealed containers to protect from atmospheric moisture. Store in a cool dry area. Store liquid in containers above ground and surround by dikes to contain spills or leaks.

Do not cut, drill, grind, weld, or perform similar operations on or near containers.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

Use either an atmosphere supplying respirator or an air-purifying respirator for organic vapors.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
CADMIUM		[0.1 / 0.3 ceiling]; [0.2 / 0.6 ceiling];			1	1						
LEAD	a	50 ug/m3			1	1			0.100b			
SILICA, CRYSTALLINE	a	[10 mg/m3 percent SiO2+2 / 250 percent SiO2+5 mppcf]; [30 mg/m3 percent SiO2+2];			[1,3]; [3];				0.05e			1
ZINC OXIDE		[15]; [5];			1				5.5c		10d	

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations
CADMIUM		0.01	0.05		A2	Kinney dam	A2, BEI
LEAD		0.05			A3	CNS impair; PNS imp; hematologic eff	A3; BEI
SILICA, CRYSTALLINE		0.025 (R)			A2	Pulmonary fibrosis; lung cancer	A2
ZINC OXIDE		2 (R)		10 (R)		Metal fume fever	

(C) - Ceiling limit, (R) - Respirable fraction, A2 - Suspected Human Carcinogen, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, dam - Damage, eff - Effects, impair - Impairment, PNS - Peripheral nervous system

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	9.43 lb/gal
Specific Gravity	1.13
VOC Regulatory	0.00 lb/gal

VOC Part A & B Combined	N.A.
Appearance	Yellow Liquid
Odor Threshold	N.A.
Odor Description	Mild
pH	N.A.
Water Solubility	N.A.
Flammability	N/A
Flash Point Symbol	N.A.
Flash Point	478 °F
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Pressure	N.A.
Vapor Density	N.A.
Freezing Point	N.A.
Melting Point	N.A.
Low Boiling Point	212 °F
High Boiling Point	N.A.
Auto Ignition Temp	N.A.
Decomposition Pt	N.A.
Evaporation Rate	N.A.
Coefficient Water/Oil	N.A.

SECTION 10) STABILITY AND REACTIVITY

Stability

Material is stable at standard temperature and pressure.

Conditions to Avoid

Heat, high temperature, open flame, sparks, and moisture. Contact with incompatible materials in a closed system will cause buildup of pressure.

Hazardous Reactions/Polymerization

Will not occur but aliphatic amine will cause irreversible polymerization with considerable heat build up.

Incompatible Materials

This product will react with materials such as amines, alkalis and acids. Avoid strong oxidizing agents. Some reactions can be violent.

Hazardous Decomposition Products

Combustion products: organic vapors and thermal decomposition fragments.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Repeated skin contact may cause a persistent irritation or dermatitis. May also aggravate an existing skin condition.

No data available

Serious Eye Damage/Irritation

No data available

Carcinogenicity

No data available

Respiratory/Skin Sensitization

Exposure may cause mucous membrane and respiratory tract irritation, tightness of chest, headache, shortness of breath, and a dry cough. The effects of acute exposure may be delayed in onset up to 12-24 hours. Repeated exposure above current occupational limits may cause an allergic sensitization of the respiratory tract. This is characterized by an asthma-like response upon re-exposure to the chemical. The symptoms may include coughing, wheezing, shortness of breath and chest tightness.

No data available

Germ Cell Mutagenicity

No data available

Reproductive Toxicity

No data available

Specific Target Organ Toxicity - Single Exposure

No data available

Specific Target Organ Toxicity - Repeated Exposure

Repeated exposure generally aggravates the following medical conditions : Cardiovascular disease and Chronic respiratory disease.

No data available

Aspiration Hazard

No data available

Acute Toxicity

Ingestion : Irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion.

May be harmful in contact with skin

Harmful if swallowed

Potential Health Effects - Miscellaneous

0014808-60-7 SILICA, CRYSTALLINE

Is an IARC, NTP or OSHA carcinogen. Repeated overexposure to crystalline silica may lead to x-ray changes and chronic lung disease. Inhalation of high dust concentrations may cause: breathing difficulties, lung injury. WARNING: This chemical is known to the State of California to cause cancer.

Chronic Exposure

0014808-60-7 SILICA, CRYSTALLINE

Prolonged inhalation of respirable crystalline silica dust can result in lung disease (i.e. silicosis and/or lung cancer). Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.

0001314-13-2 ZINC OXIDE

LD50 (oral, mouse): 7950 mg/kg body weight (9)

0007439-92-1 LEAD

LC50 (Invertebrate - daphnia, Chemical added to tank with water (dissolved in water)) : 300 ug/L (48 hours exposure) Toxic effects : Details of toxic effects not reported other than lethal dose value.

0007440-43-9 CADMIUM

LC50 (Invertebrate - daphnia, Chemical added to tank with water (dissolved in water)) : 5 ug/L (48 hours exposure) Toxic effects : Details of toxic effects not reported other than lethal dose value.

LD50 (Rodent-rat, Oral) : 2330 mg/kg, Toxic effects : Details of toxic effects not reported other than lethal dose value.

LD50 (Rodent-rat, Unreported) : 1140 mg/kg, Toxic effects : Details of toxic effects not reported other than lethal dose value.

LD50

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Harmful to aquatic life

Toxic to aquatic life with long lasting effects

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information

Not regulated.

IMDG Information

Not regulated.

IATA Information

Not regulated.

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0025085-99-8	BISPHENOL A EPOXY RESIN	21% - 38%	DSL,SARA312,TSCA
0001314-13-2	ZINC OXIDE	0.6% - 1.1%	SARA313, DSL,CERCLA,SARA312,TSCA
0014808-60-7	SILICA, CRYSTALLINE	0.3% - 0.5%	DSL,SARA312,TSCA,CA_Prop65 - California Proposition 65
0007440-43-9	CADMIUM	Trace	DSL,CERCLA,HAPS,SARA312,TSCA,CA_Prop65 - California Proposition 65
0007439-92-1	LEAD	Trace	SARA313, DSL,CERCLA,HAPS,SARA312,TSCA,CA_Prop65 - California Proposition 65

SECTION 16) OTHER INFORMATION

OTHER INFORMATION

Note: As per GHS, category 1 is the greatest level of hazard within each class.

GLOSSARY

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; CA Prop65- California Proposition 65; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

DISCLAIMER

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

Product Name: Ghemco RIBB Primer, Side B
Revision Date: Sept 20, 2018 **Date Printed:** Sept 20, 2018
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Ghemco
Address: PO Box 3977, Santa Fe Springs, CA, US 90670
Emergency Phone: (562) 250-4745
Information Phone: Chemtrec: (800) 424-9300 (Account CCN837338) or International (703) 527-3887 (Account CCN837338)

Product/Recommended Uses: For Further Information, Refer to the Product Technical Data Sheet.

SECTION 2) HAZARDS IDENTIFICATION**Classification**

Eye Irritation - Category 2A
Flammable Liquids - Category 3
Skin Irritation - Category 3

Pictograms**Signal Word**

Warning

Hazardous Statements - Physical

H226 - Flammable liquid and vapor

Hazardous Statements - Health

H319 - Causes serious eye irritation

H316 - Causes mild skin irritation

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P242 - Use only non-sparking tools.

P243 - Take action to prevent static discharges.

Precautionary Statements - Response

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P370 + P378 - In case of fire: Use dry chemical, carbon dioxide, foam to extinguish.

For detailed information, see Section-5 (Fire Fighting Measures)

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

Precautionary Statements - Storage

P403 + P235 - Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant.

Acute toxicity of 35.9% of the mixture is unknown

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
NA	EPOXY RESIN ADDUCT	23% - 43%
0000107-98-2	PROPYLENE GLYCOL MONOMETHYL ETHER	10% - 19%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If exposed/feel unwell/concerned: Call a POISON CENTER/doctor.

Skin Contact

Rinse/wash with lukewarm, gently flowing water and mild soap for 15-20 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

Eye Contact

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

Give 3 or 4 glasses of water to drink. Never give anything by mouth to an unconscious person.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide water spray or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Unsuitable Extinguishing Media

If water is used, use very large quantities of cold water.

Specific Hazards in Case of Fire

Excessive pressure or temperature may cause explosive rupture of containers.

Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Care should always be exercised in dust/mist areas.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended Equipment

Appropriate dust or face mask to eliminate breathing foam dust particulates.

Personal Precautions

Avoid breathing vapors. Avoid contact with skin, eyes or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Soak up material with absorbent and shovel into a chemical waste container. Cover container, but do not seal, and remove from work area. Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, call CHEMTREC (Chemical Transportation Emergency Center) at 800-424-9300.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use.

Do not get in eyes, on skin or on clothing.

Do not breathe vapors or mists.

Use good personal hygiene practices.

Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

Eyewash stations and showers should be available in areas where this material is used and stored.

Individuals with existing respiratory disease such as chronic bronchitis, emphysema, or asthma should not be exposed.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Store in tightly sealed containers to protect from atmospheric moisture. Store in a cool dry area. Store liquid in containers above ground and surround by dikes to contain spills or leaks.

Do not cut, drill, grind, weld, or perform similar operations on or near containers.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

In poorly ventilated areas, a cartridge mask NIOSH approved for organic vapors is recommended under the following conditions: emergency situations, when product vapor concentration is greater than 20 ppm for a period longer than 15 min., during repair and cleaning of equipment, during transfer or discharge of the product.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
PROPYLENE GLYCOL MONOMETHYL ETHER								100	360	150	540	

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations
PROPYLENE GLYCOL MONOMETHYL ETHER	50		100		A4	Eye & URT irr	A4

A4 - Not Classifiable as a Human Carcinogen, irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	8.90 lb/gal
Specific Gravity	1.07
VOC Regulatory	0.00 lb/gal

VOC Part A & B Combined	0.38 lb/gal
Appearance	Off White Liquid
Odor Threshold	N.A.
Odor Description	Mild Aromatic
pH	N.A.
Water Solubility	N.A.

Flammability	N/A
Flash Point Symbol	N.A.
Flash Point	48 °C
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Pressure	N.A.
Vapor Density	N.A.
Freezing Point	N.A.
Melting Point	N.A.
Low Boiling Point	100 °C
High Boiling Point	N.A.
Auto Ignition Temp	N.A.
Decomposition Pt	N.A.
Evaporation Rate	N.A.
Coefficient Water/Oil	N.A.

SECTION 10) STABILITY AND REACTIVITY

Stability

Material is stable at standard temperature and pressure.

Conditions to Avoid

Heat, high temperature, open flame, sparks, and moisture. Contact with incompatible materials in a closed system will cause buildup of pressure.

Hazardous Reactions/Polymerization

Will not occur.

Incompatible Materials

This product will react with epoxies, isocyanates, and strong oxidizing agents. Some reactions can be violent.

Hazardous Decomposition Products

Combustion products: organic vapors and thermal decomposition fragments.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes mild skin irritation

Serious Eye Damage/Irritation

Any contact should not be left untreated.

Causes serious eye irritation

Respiratory/Skin Sensitization

Exposure may cause mucous membrane and respiratory tract irritation, tightness of chest, headache, shortness of breath, and a dry cough. The effects of acute exposure may be delayed in onset up to 12-24 hours. Repeated exposure above current occupational limits may cause an allergic sensitization of the respiratory tract. This is characterized by an asthma-like response upon re-exposure to the chemical. The symptoms may include coughing, wheezing, shortness of breath and chest tightness.

No data available

Carcinogenicity

No data available

Germ Cell Mutagenicity

No data available

Reproductive Toxicity

No data available

Specific Target Organ Toxicity - Single Exposure

No data available

Specific Target Organ Toxicity - Repeated Exposure

Repeated exposure generally aggravates the following medical conditions : Cardiovascular disease and Chronic respiratory disease.

No data available

Aspiration Hazard

No data available

Acute Toxicity

If ingested : In humans, irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion, and injury may be severe and cause death.

No data available

Potential Health Effects - Miscellaneous

0000107-98-2 PROPYLENE GLYCOL MONOMETHYL ETHER

Tests in laboratory animals have shown effects on any of the following organs/systems: kidneys, liver. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

0000107-98-2 PROPYLENE GLYCOL MONOMETHYL ETHER

LC50 (rat): 15000 ppm; 4-hr exposure (2)

LC50 (guinea pig): 15000 ppm; 10-hr exposure (2)

LD50 (oral, rat): 6.6 g/kg (5.2-7.5 g/kg) (10)

LD50 (oral, mouse): 10.7-10.8 g/kg (2,12)

LD50 (oral, dog): 4.6-5.5 g/kg (2); approximately 9.2 g/kg (2)

LD50 (oral, rabbit): 5.2-5.3 g/kg (2,12)

LD50 (dermal, rabbit): 13-14 g/kg (10)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

No data available

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine a the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information

Not regulated.

IMDG InformationUN/NA #: 1263
UN Proper Shipping Name: PAINT
Hazard Class: 3
Packing Group: III
Placard: Flammable
Marine Pollutant: No data available**IATA Information**UN/NA #: 1263
UN Proper Shipping Name: PAINT
Hazard Class: 3
Packing Group: III
Placard: Flammable

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
NA	EPOXY RESIN ADDUCT	23% - 43%	TSCA
0000107-98-2	PROPYLENE GLYCOL MONOMETHYL ETHER	10% - 19%	DSL,SARA312,VOC,TSCA

SECTION 16) OTHER INFORMATION

OTHER INFORMATION

Note: As per GHS, category 1 is the greatest level of hazard within each class.

GLOSSARY

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; CA Prop65- California Proposition 65; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

Version 1.0:

Revision Date: Mar 28, 2018

Version 1.0

DISCLAIMER

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.