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SAFETY DATA SHEET

SECTION 1 - Identification

1.1 Product Identifier

Product Name • CARPOL® MX-470 Polyol
Synonyms • Polyether Polyol Blend

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use • Component of Polyurethane
Restrictions on Use • Industrial Use Only

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer • Carpenter Co.
5016 Monument Ave.
Richmond, Virginia 23230
(804) 233-0606

1.4 Emergency Telephone

Chemtrec • (800) 424-9300 (24-hr number)

SECTION 2 - Hazards Identification

2.1 Classification of the Substance or Mixture

Classification in accordance with 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and GHS (5th Edition):

Acute Toxicity Oral Category 4 – H302
Skin Irritation Category 2 – H315
Eye Irritation Category 1 – H318

2.2 GHS Label Elements

Hazard Pictogram



Signal Word

DANGER

Hazard Statements

H302 – Harmful if swallowed.
H315 – Causes skin irritation.
H318 – Causes serious eye damage

Precautionary Statements

Prevention	P280 – Wear eye protection and protective gloves P264 – Wash thoroughly after handling. P273 - Avoid release to the environment. P270 - Do not eat, drink or smoke when using this product.
Response	P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a physician. P302+P352 + P332 + P313 - IF ON SKIN: Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice. P362+P364 – Take off contaminated clothing and wash it before reuse. P301+P312+P330 - IF SWALLOWED: Rinse mouth. Call a physician if you feel unwell.
Storage/Disposal	P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Hazards Not Otherwise Classified

- May cause gastrointestinal discomfort.
- Refer to Section 16 Other Information for relevant EU CLP phrases.

SECTION 3 - Composition/Information on Ingredients

3.1 Substance

Material does not meet the criteria of a substance according to United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

3.2 Mixtures

Name	Identifier	% (weight)
Oxirane, 2-methyl-, polymer with oxirane, ether with 2,6-bis[[bis-(2-hydroxyethyl)amino]methyl]-4-branched nonylphenol	CAS# 940912-28-7	90-100
Ethanol, 2,2'-iminobis-, polymer with 2-methyloxirane and oxirane	CAS# 34354-45-5	<10

SECTION 4 - First Aid Measures

4.1 Description of First Aid Measures

By route of inhalation	<ul style="list-style-type: none">• Remove victim to fresh air.
By route of dermal contact	<ul style="list-style-type: none">• Remove contaminated clothing and shoes. Wash thoroughly with soap and water. Seek medical attention if irritation develops.
By route of eye contact	<ul style="list-style-type: none">• Flush with plenty of water for 30 minutes. Seek medical attention.
By route of ingestion	<ul style="list-style-type: none">• If victim is conscious, give 1 to 2 glasses of water for dilution. Do not induce vomiting unless directed to do so by medical personnel.

4.2 Most Important Symptoms and Effects, Acute and Chronic

Refer to Section 11 Toxicological Information.

4.3 Indication of Immediate Medical Attention and Special Treatment If Needed

- Treat symptomatically and supportively.

SECTION 5 - Firefighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media	<ul style="list-style-type: none">• Dry chemical, foam, carbon dioxide, water fog or fine spray.
Unsuitable Extinguishing Media	<ul style="list-style-type: none">• Do not use direct water spray. May spread fire.

5.2 Special Hazards Arising From the Substance or Mixture

- May produce oxides of carbon and nitrogen, and have traces of aldehydes, ketones, and organic acids on combustion.

5.3 Special Protective Actions for Firefighters

- Responding personnel must wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing.

SECTION 6 - Accidental Release Measures

6.1. Personal Precautions, Protective Equipment, and Emergency Procedures

Non-Emergency Personnel	<ul style="list-style-type: none">• Avoid any skin contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Ensure adequate ventilation to remove vapors, fumes, dust etc. Ventilate enclosed areas.
For Emergency Responders	<ul style="list-style-type: none">• Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area) Keep unauthorized personnel away. Stay upwind. Stop leak if you can do it without risk.

6.2 Environmental Precautions

- Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

6.3 Methods and Materials for Containment and Clean Up

Methods

- Stop leak, dam spill, and transfer liquid into a suitable container.
- Collect residue with absorbent and transfer into a suitable container for proper disposal.

Materials

- For large spills, responding personnel must use supplied-air positive pressure breathing apparatus.

6.4 Reference to Other Sections

- Refer to Section 8 for exposure control and personal protective equipment information.
- Refer to Section 12 for ecological information.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Keep containers tightly closed when not in use.
- Do not eat, drink, or smoke in working area.
- Avoid contact with skin and clothing.
- Avoid contact with eyes.
- Use good safety and industrial hygiene practices.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Storage

- Store materials in a cool, dry place. Do not transport with oxidizers.

Incompatibilities

- Oxidizing materials, acids, and Isocyanates.

SECTION 8: Exposure Controls/ Personal Protection

8.1 Control Parameters

Exposure Limits/Guidelines

	OSHA PEL(ppm)	ACGIH TLV (ppm)
Formaldehyde	0.75 TWA 2 STEL	0.3 Ceiling

8.2 Exposure Controls

Engineering Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Eye/Face Protection	<ul style="list-style-type: none"> • Chemical goggles. Face shield with chemical goggles if there is a possibility of splashing.
Respiratory Protection	<ul style="list-style-type: none"> • None required under normal use. If product is heated or sprayed, appropriate respiratory protection may be needed.
Skin Protection	<ul style="list-style-type: none"> • Wear suitable working clothes and shoes. • Wear chemical resistant gloves appropriate for the intended use. Consult glove manufacturers for assistance in choosing appropriate gloves.
Environmental Exposure Controls	<ul style="list-style-type: none"> • No data available.
Additional Protection Measures	<ul style="list-style-type: none"> • Use near eyewash station and safety shower.

SECTION 9: Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	• Viscous liquid	Odor	• Slight odor
Appearance /Color	• Amber	Odor Threshold	• No data available
General Properties			
Boiling Point	• No data available	Melting Point	• No data available
Decomposition Temperature	• No data available	pH	• No data available
Density (at 25°C)	• No data available	Water Solubility	• Low
Solvent Solubility	• No data available	Viscosity (at 25°C)	• No data available
Explosive Properties	• No data available	Specific Gravity/Relative Density	• 1.06 (H ₂ O=1)
Volatility			
Vapor Pressure	• No data available	Vapor Density	• No data available
Evaporation Rate	• No data available	VOC (Vol.)	• No data available
Volatiles (Vol.)	• No data available		
Flammability			
Flash Point	• >200°F (PMCC)	LEL	• No data available
UEL	• No data available	Flammability (solid, gas)	• No data available
Auto-ignition Temperature	• No data available		
Environmental			
Octanol/Water Partition Coefficient	• No data available		

9.2. Other Information

No additional information available

SECTION 10: Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical Stability

Stable under normal temperatures and pressures.

10.3 Possibility of Hazardous Reactions

No data available.

10.4 Conditions to Avoid

Elevated temperatures.

10.5 Incompatible Materials

Oxidizing materials, strong acids, and isocyanates.

10.6 Hazardous Decomposition Products

No data available.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

Acute Toxicity (based on similar materials)

Chemical	LD ₅₀ oral rat	LD ₅₀ dermal rabbit	LC ₅₀ inhalation rat
Amine Polyol	1,370 mg/kg	12,800 mg/kg	Not data available

Skin Corrosion/Irritation

- Skin Irritation Category 2: Causes skin irritation

Serious Eye Damage/Irritation

- Eye Irritation Category 1: Causes serious eye damage

Respiratory or Skin Sensitization

- No data available

Germ Cell Mutagenicity

- No data available

Carcinogenicity

Formaldehyde NTP – Known to be a human carcinogen
 IARC – Carcinogenic to humans
 OSHA – Regulated as a carcinogen

Diethanolamine IARC – Possibly carcinogenic to humans

Reproductive Toxicity

- No data available

Specific Target Organ Toxicity (single exposure)

- No data available

Specific Target Organ Toxicity (repeated exposure)

- No data available

Aspiration Hazard

- No data available

11.2 Potential Health Effects

Inhalation

- | | |
|---------|--|
| Acute | • Not expected to be a hazard due to low vapor pressure. |
| Chronic | • None known. |

Skin

- | | |
|---------|--|
| Acute | • Prolonged contact may cause severe irritation. |
| Chronic | • None known. |

Eye

- | | |
|---------|---|
| Acute | • May cause severe irritation with corneal injury which may result in permanent impairment of vision. |
| Chronic | • None known. |

Ingestion

- | | |
|---------|--|
| Acute | • Small amounts swallowed may cause gastrointestinal discomfort. |
| Chronic | • None known. |

SECTION 12: Ecological Information

12.1 Ecotoxicity

Toxic to aquatic organisms.

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulative Potential

No data available

12.4 Mobility in Soil

No data available

12.5 Other Adverse Effects

No data available

SECTION 13: Disposal Considerations

13.1 Waste Disposal Method

Product Waste

- Do not dump into any sewers, on the ground, or into any body of water.
- All disposal methods must be in compliance with Federal, State/Provincial, and local regulations.

Packaging Waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport Information

U.S. DOT

Not regulated as hazardous for shipment.

SECTION 15: Regulatory Information

15.1 Regulatory Status

CERCLA Hazardous Substances (40 CFR 302): None reportable.

SARA 311/312: Acute health hazard.

SARA 313:

Formaldehyde	CAS# 50-00-0
Diethanolamine	CAS# 111-42-2

15.2 US State Regulations

STATE RIGHT-TO-KNOW: This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. (California Health and Safety Code Section 25249.6). [Diethanolamine, Formaldehyde]

15.3 Canadian Regulations

DSL: All components of this product are listed on, or exempt from the DSL.

WHMIS: Class D2B (skin or eye irritation).

15.4 International Inventories*

United States: All components of this product are listed on the TSCA inventory.

Japan: All components of this product are listed on the ENCS.

*=Although a chemical may be listed on a country's inventory, it may not indicate a hazard or regulatory control for use.

SECTION 16: Other Information

16.1 HMIS AND NFPA RATINGS

HMIS Classification

Health: 3
Flammability: 1
Reactivity: 0

NFPA Ratings

Health: 3
Flammability: 1
Instability: 0
Special: None

16.2 EU CLP Relevant Phrases

S24/25 - Avoid contact with skin and eyes.

S56 - Dispose of this material and its container to hazardous or special waste collection point.

S29/35 - Do not empty into drains; dispose of this material and its container in a safe way.

S3/9/49 - Keep only in the original container in a cool, well ventilated place.

16.3 Preparation By

I.H. Department

16.4 Preparation Date

September 4, 2013

16.5 Last Revision Date

March 4, 2015

16.6 Disclaimer/Statement of Liability

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