

SAFETY DATA SHEET

Date Prepared: 12/17/2012

Date Printed: 4/13/2015

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

MATERIAL IDENTITY: Urethane Foam Resin
RR 501 B

INFORMATION TELEPHONE: 920-645-6205
800-626-2464

COMPANY:
Hydraulic Mudpumps, Inc
1025 East Albert Drive
Manitowoc, WI 54220

EMAIL ADDRESS FOR MSDS: info@hmicompany.com

EMERGENCY TELEPHONE:
CHEMTREC: 800-424-9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

OSHA HAZARDOUS

Target Organ Effect: Irritant

Target Organs: Respiratory, Eyes, Skin, Liver, Kidney, Bladder

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

| Health | | Environmental | Physical |
|---|---|----------------|----------------|
| Acute Toxicity, Oral Respiratory Tract Irritant Skin Irritant Eye Irritant | Category 5 Category 3 Category 2 Category 2B | Not Classified | Not Classified |

Pictogram:



Signal Word

Warning

| Hazard Statements | Precautionary Statements |
|--|--|
| H303 Maybe harmful if swallowed H315 Causes skin irritation H320 Causes eye skin irritation H335 May cause respiratory irritation | P261 Avoid breathing dust/fume/gas/mist/vapor/spray P280 Wear protective gloves/protective clothing/eye protection/face protection P 304 If inhaled remove to fresh air and keep at rest in a position comfortable for breathing. Call a doctor if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization:

| Ingredient(s) | CAS Number | % (by weight) |
|---|------------|---------------|
| Polyether Polyol Resin | 1675-54-3 | 85 – 95 % |
| Tris(<i>B</i> -chloropropyl)phosphate (TCPP) | 13674-84-5 | 2 - 10 % |
| Diethylene Glycol | 111-46-6 | 1 – 5% |

*** Polyether polyol resins may include; (9051-51-8; 9049-71-3; 52625-13-5; 25791-96-2, 70749-97-2) and other polyol resins

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4. FIRST AID MEASURES

Eyes Contact: Get medical attention immediately. Immediately flush eyes gently with large amounts of water for at least 20-30 minutes. Retract eyelids often. Check for and remove any contact lenses. Chronic exposures to vapors can cause conjunctivitis.

Skin Contact: Remove contaminated clothing. Wash the exposed area with mild soap and water. Flush w/lukewarm water for at least 15 minutes. Launder contaminated clothing before re-use. Seek medical attention if ill effect or irritation develops.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Keep person warm, quiet and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. Target organs include liver, kidney, bladder and sternal bone marrow. Can cause gastrointestinal irritation. Symptoms of TCPP exposure may include salivation, sweating, headache, nausea, muscle twitching, abdominal cramping, diarrhea and chest discomfort.

Inhalation: Move exposed person to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate make of self contained breathing apparatus. Keep person warm and at rest. If not breathing or breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway

Advise to physicians: Treat symptomatically and supportively. TCPP may cause cholinesterase inhibition. If cholinesterase inhibition is suspected, atropine by injection is antidotal. 2-PAM (protopan chloride) is also antidotal when administered early and in conjunction with atropine. Following exposure medical follow-up should be maintained for at least 48 hours.

5. FIRE FIGHTING MEASURES

Conditions of Flammability

Not flammable or combustible

Suitable extinguishing media

Use water spray, foam, dry chemical.

Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions – Carbon Oxides

Fire Fighting Instructions

Wear self contained breathing apparatus (pressure-demand MSHA/NIOSH) approved or equivalent and protective clothing. See Section 10 – decomposition products possible. Fight fire from safe distance/protected location. For a large fire use water spray, fog or foam. DO NOT use water jet.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions

Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Notify authorities of any releases to sewers, soils, waterways or air.

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Methods and Materials for Containment and Cleaning Up

Stop the leak if it can be done without risk. Move containers from the spill area. Prevent entry into sewers, water ways or soils. Contain and collect spillage with non-combustible, absorbent material such as sand, earth, vermiculite or diatomaceous earth. Place in container for disposal according to local regulations via a licensed waste disposal contractor. Contaminated absorbent materials may pose the same hazards as the spilled product. See section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Can cause skin and eye irritation.

Avoid breathing vapors or spray mists. Avoid contact with eyes, skin, and clothing. Keep container tightly closed and store in a cool, well ventilated area away from: heat, sparks, open flame, strong oxidizers, radiation and other initiators. DO NOT store above 40° C (104° F). If frozen, warm and remix material gently (<90F). Prevent moisture contact. Prevent contamination by foreign materials.

Conditions for Safe Storage

Store in accordance with local regulations. 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. 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

| HAZARDOUS COMPONENT | PEL | STEL | TLV | Other |
|---|-----|------|-----|-----------------------------------|
| Polyether Polyol Resin | NE | NE | NE | NE |
| Tris(<i>B</i> -chloropropyl)phosphate (TCPP) | NE | NE | NE | NE |
| Diethylene glycol | NE | NE | NE | AIHA WEEL 10 mg/m ³ |

Engineering Controls

Use local exhaust ventilation to maintain airborne concentrations below exposure limits. Respiratory protection may be required in addition to general room ventilation.

Respiratory Protections

Use a properly fitted, air-purifying or air supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards or the product and the safe working limits of the selected respirator.

Eye Protection

Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles or vapor. Contact lenses should not be worn.

Skin and Body Protection

When skin contact is possible, protective clothing including apron, sleeves, boots head and face protection should be worn. Wear chemical resistant gloves such as neoprene, rubber, latex, etc.

Other hygienic practices

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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OTHER WORK PRACTICES

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse. Shower after work using plenty of soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------------|---------------------------|
| Appearance | |
| Form | Viscous liquid |
| Color | Dark Amber |
| pH | Not available |
| Melting/Freezing Temperature | Not available |
| Boiling Point | 336 C/ 637 F |
| Flash Point | > 95 C/ 250 F |
| Ignition Temperature | Not available |
| Autoignition Temperature | Not available |
| Lower explosive limit; na | Upper explosive limit: na |
| Vapor Pressure | Not available |
| Vapor Density (air=1) | > 1 |
| Specific Gravity (water=1 @39.2F) | 1.12 @ 25C/77F |
| Percent Volatiles | < 5% |
| Evaporation Rate (Bac=1) | Not available |
| Odor | Mild |
| Odor threshold | Not available |

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

No data available. See materials to avoid below.

Conditions to Avoid

High temperatures, localized heat sources (i.e., drum or band heaters), oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers. Keep container tightly sealed.

Materials to Avoid

Reactive or incompatible with: strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers.

Hazardous Decomposition Products

Acrid smoke-fumes, hydrocarbons, carbon monoxide, carbon dioxide, phosphorous oxides, hydrogen chloride gas and perhaps other toxic vapors may be released during a fire involving this product

11. TOXICOLOGY INFORMATION

Toxicity Data Based on Polyether Polyol Resin

Acute Toxicity

| | | |
|-----------------|--------|-------------------|
| Oral LD50 | Rat | > 2,000 mg/kg. |
| Dermal LD50 | Rabbit | > 1,000 mg/kg |
| Inhalation LC50 | | No data available |

Skin Corrosion/Irritation

| | |
|------|----------|
| Skin | Irritant |
|------|----------|

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Serious Eye Damage/Eye Irritation

Eye Irritant

Respiratory

Respiratory Irritant

Respiratory or Skin Sensitization

None Known

Mutagenicity

None Known

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by ACGIH

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

12. ECOLOGICAL INFORMATION

Aquatic Ecotoxicity

No data available for Polyether Polyol

Based on Diethylene Glycol

| | | |
|---------------------------|-----------------|----------------------------|
| Acute 96 hr LC50 | 75,200 < 1 mg/l | Pimephales promelas |
| Acute 96 hr LC50 (Static) | 84,000 < 1 mg/l | Daphnia magna |
| Acute 15 minute | 29,228 1 mg/l | Photobacterlum phosphoreum |

Chronic Bacterial Toxicity Ecotoxicity

No data available

Biodegradability

No data available

Mobility in soil

No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residuals. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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14. TRANSPORTATION INFORMATION

DOT (US)

Not Regulated

IMDG

Not Regulated

TDG

Not Regulated

15. REGULATORY INFORMATION

TSCA INVENTORY STATUS

All components are listed or exempt

OSHA HAZARDS

Skin, Respiratory, and Eye irritant

HMIS Classification

| | |
|------------------|---|
| Health Hazard; | 1 |
| Flammability | 1 |
| Physical Hazards | 0 |

NFPA Rating

| |
|---|
| 1 |
| 1 |
| 0 |

SARA TITLE III: Section 311/312 Hazard Class

Acute Health Hazard, Chronic Health Hazard

SARA TITLE III: Section 313 (40CFR370)

This product does not contain a chemical which is listed in Section 313 at or above the de minimus concentrations.

CERCLA Information (40CFR302.4)

This material contains no hazardous or extremely hazardous substances at or above the de minimus concentrations as defined by CERCLA or SARA Title III, and release is therefore not reportable.

California Proposition 65 Information:

This product contains, no listed substances known to the state of California to cause cancer and/or reproductive toxicity.

16. OTHER INFORMATION

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources, which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).