1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

MATERIAL IDENTITY: Urethane Foam Resin
RR 400

INFORMATION TELEPHONE:
920-684-8549

COMPANY:
Hydraulic Mudpumps, Inc
4803 Leonard Lane
Manitowoc, WI 54220

EMERGENCY TELEPHONE:
CHEMTREC: 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)	Exposure Limits		
			PEL	STEL	TLV
Polyether Polyol Resin	Mixture ***	30 – 70 %	NE	NE	NE
Tri (2-chloroisopropyl) Phosphate	13674-84-5	20 – 30 %	NE	NE	NE
Propylene glycol	25322-69-4	0 – 2%	NE	NE	NE

*** Polyether polyol resins may include; 9051-51-8; 9049-71-3; 52625-13-5; 25791-96-2)

3. HAZARDS IDENTIFICATION

EYE

This material can be an eye irritant by contact.

SKIN ABSORPTION

This material can be a skin irritant by contact.

SKIN IRRITATION

Prolonged or repeated contact can cause moderate irritation and dermatitis. TCPP exposure may cause salivation, sweating, headache, nausea, muscle twitching, abdominal cramping and chest discomfort.

INGESTION

Can cause gastrointestinal irritation. Symptoms of TCPP exposure may include salivation, sweating, headache, nausea, muscle twitching, abdominal cramping, diarrhea and chest discomfort.

INHALATION

Wear appropriate respiration protection if vapor or mist is expected. Inhalation may cause respiratory tract irritation.

CHRONIC EFFECTS

The toxicological properties of this substance have not been fully investigated. Target organs can include kidneys, liver and or sternal bone marrow.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

This material or its emissions may aggravate chronic breathing problems, colds and congestion.

4. FIRST AID MEASURES

EYES

Check for and remove any contact lenses. Immediately flush eyes gently with large amounts of water for at least 15 minutes. Retract eyelids often. Get prompt medical attention.

SKIN

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 warn, 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 and bladder.

INHALATION

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention immediately. This material may contain up to 2% polypropylene glycol. AIHA recommends an 8 hour TWA for propylene glycol aerosol of 10 mg/m^3.

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

FLASH POINT METHOD

GT 230^o F/110^o C for polyether polyol

FLAMMABLE LIMITS (% VOLUME IN AIR) **AUTOIGNITION TEMP. METHOD =** N/AP

LOWER: N/AP UPPER: N/AP

FIRE AND EXPLOSIVE HAZARDS

Slightly flammable in the presence of open flames, sparks or static discharge.

EXTINGUISHING MEDIA

SMALL FIRE: Use dry chemical powder

LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.

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

Spilled or released material may polymerize and release heat/gases. Eliminate all ignition sources and ventilate area. Wear protective equipment during clean up. Dike and recover large spill. Soak up small spill with inert solids (such as vermiculite, clay) and sweep/shovel into vented disposal container. Wash spill area with a strong detergent and water solution; rinse with water but minimize water use during clean up. Prevent runoff from entering drains, sewers, or streams. Dispose/report per regulatory requirements.

7. HANDLING AND STORAGE

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.

DECONTAMINATION PROCEDURES

Follow standard plant procedures or supervisor's instructions for decontamination operations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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 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.

RESPIRATORY PROTECTIONS

Where exposure through inhalation may occur from use, NIOSH/MSHA approved respiratory protection equipment is recommended.

ENGINEERING CONTROLS

Local exhaust ventilation may be required in addition to general room ventilation.

OTHER HYGIENIC PRACTICES

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

THER 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

Boiling Point	> 660° F/350° C
Vapor Pressure	N/DA
Vapor Density (air=1)	> 1
Specific Gravity (water=1 @39.2F)	1.1 @ 25C/77F
Percent Volatiles	< 2.0 %
Evaporation Rate (Bac=1)	N/DA
Viscosity Units, Temp. (Brookfield)	AP varies with product mix cps @ 25C/77F
Odor	Mild
pH	N/DA
Color	Amber
State	viscous liquid

10. STABILITY AND REACTIVITY

CONDITIONS AND MATERIALS 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.

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. SUPPLEMENT

HMIS RATING

Health	1
Flammability	1
Reactivity	0
Personal Protection**	D

**Respiratory protection may be necessary depending on conditions of use.

12. TOXICOLOGY INFORMATION

Toxicity data based on Polyether Polyol

Oral Toxicity

LD50: (Oral rat) > 2,000 mg/kg

Dermal Toxicity

LC50: (Dermal Rabbit) > 1,000 mg/kg

Inhalation Slightly hazardous in case of inhalation

Skin Contact Slightly hazardous in case of skin contact

Eye Contact Slightly hazardous in case of eye contact

Mutagenic None known

Reproductive Effects None known

Teratogenic Effects None known

13. REGULATORY INFORMATION

SARA TITLE 3: SECTION 311/312 HAZARD CLASS (40 CFR 370)

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

CERCLA INFORMATION (40 CFR 302.4)

This material contains no hazardous or extremely hazardous substances as defined by CERCLA or SARA Title III above deminimus concentrations.

TSCA status: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

California Proposition 65 Information: This product does not contain substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

TRANSPORTATION INFORMATION

US DOT Hazard Class Non-Regulated

WASTE CLASSIFICATION

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristics definition of ignitability, corrosiveness, or reactivity and is not listed in 40CFR261.33. The toxicity characteristic (TC), has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

14. 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).

*Note – qualifiers and codes used in this MSDS
EQ=Equal; AP= Approximately; LT= Less Than; GT = Greater Than; TR =Trace; UK = Unknown; N/AP = Not Applicable; N/P = No Applicable Information Found; N/DA = No Data Available; NE = Not Established