

Urethane SR**PYCOSA Chemicals, Inc.**

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NFPA 704 Hazard Rating
Health 3
Fire 1 **Other 0**
Reactivity 0

Effective Date: 01/99 Prepared by: Roger Borremans

The following information includes safety data required by OSHA. The recipient of this safety data is responsible for passing the safety information on so that it reaches the ultimate user who may come in contact with the material.

Section 1. Material Identification

Urethane SR description: a hydrophobic polyurethane grout designed for soil stabilization when medium or high strength is required. **Urethane SR** is a polymeric Diphenylmethane Diisocyanate (MDI) based grout which is resistant to most organic solvents, mild acids and resistant to micro-organisms.

Section 2. Ingredients

<u>Product</u>	<u>C.A.S. No.</u>	<u>P.E.L.</u>	<u>STEL TLV</u> <u>expressed in ppm</u>	<u>Percent</u>
4,4'- Diphenylmethane Diisocyanate	101-68-8	0.02	0.02	1-20%
Higher Oligomers of MDI	9016-87-9	N/D	N/D	1-25%
Diphenylmethane Diisocyanate	26447-40-5	N/D	N/D	1-5%
Poly(oxyalkylene) Polyol	P/I	N/A	N/A	1-15%
Dibutyl Phthalate	84-74-2	N/A	N/A	35-50%

This product contains material that is subject to the reporting requirements of Sara Title III section 313 (see section 11 of this MSDS)

P/I: Proprietary Information

Section 3. Physical Data

Physical Form: liquid

Color: Dark Brown

Odor: Slightly musty odor

Boiling Point: >644°F (>340°C) at temperature above 400°F (204°C) can polymerize or decompose (see **section 5**)

Freezing Point: N/D

Vapor Pressure: 0.0001 mmHg @ 68°F (20°C)

Viscosity: 25 Cps ± 30 @ 68 °F (20 °C).

Specific Gravity: 1.118 @ 68/39.8°F (20/4°C)

Bulk Density: 9.33 lbs/gal

H₂O Solubility: soluble in water. Reacts fast (< 1 minute) with water to liberate CO₂ gas

Other Solubilities: Miscible with most organic solvents (ketones, benzene, waxes and oils).

Section 4. Fire and Explosion Data

Flash Point: 365°F (185°C)

Extinguishing Media: For small fires, use dry chemical, carbon dioxide (CO₂). For large fires, use fog or regular foam.

Unusual Fire or Explosion Hazards: Vapors are heavier than air and may collect in low-lying areas. Container may explode in heat of fire. Exposure to flames or arc welding can produce highly toxic gases due to the thermal decomposition or combustion of the product. (See **section 5**)

Fire Fighting Procedures: Since fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus with a full-face piece operated in pressure-demand or positive-pressure mode. Apply cooling water to sides of container until well after fire is out. Do not release fire water runoff to sewers or water ways.

Section 5. Reactivity Data

Stability: Is stable at room temperature in closed containers under normal storage and handling conditions.

Hazardous polymerization: can occur. Contact with moisture, other materials, which react with isocyanates, or temperatures above 350°F (177°C), may cause polymerization.

Incompatibility: Is incompatible with water, amines, strong bases and alcohols.

Hazardous Products of Decomposition: Thermal decomposition can produce carbon monoxide (CO), oxides of nitrogen, traces of cyanic acid and MDI vapors.

Urethane SR**Section 6. Health Hazards Data****FIRST AID PROCEDURES**

Eyes: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. GET MEDICAL ATTENTION.

Skin: Quickly remove contaminated clothing. Wash contaminated areas with plenty of soap and water. A soothing ointment may be applied to irritated skin after thorough cleansing. SEEK MEDICAL ATTENTION.

Inhalation: Remove exposed person to fresh air and support breathing if necessary.

Ingestion: Do not induce vomiting. Give 1 to 2 cups of milk or water to drink. If vomiting is inevitable, prevent aspiration by keeping the victim's head below the knees.

DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

GET MEDICAL ATTENTION IMMEDIATELY.

Exposure limits: have not been established for this material. Use the exposure limits for MDI:

OSHA PEL: 0.02 ppm STEL

ACGIH TLV: 0.02 ppm STEL

Section 7. Employee Protection Recommendations

Goggles: Wear a face shield (8 in. minimum) per OSHA eye and face protection regulations (20 CFR 1910.133).

Respirator: Because of the low vapor pressure, ventilation is usually sufficient to keep the vapors below the TLV at room temperatures. Exceptions are when the material is sprayed or heated. If airborne concentrations would exceed the TLV, follow OSHA respirator regulations (29 CFR 1910.134) and if necessary wear MSHA/NIOSH - approved respirator. If inadequate ventilation in confined spaces, use supplied air respirator or self contained breathing apparatus with a full-face piece operated in pressure demand or positive-pressure mode.

Clothing: Wear chemically protective gloves, boots and aprons to prevent repeated or prolonged skin contact. Viton, neoprene and butyl rubber are recommended materials for protected gear.

Ventilation: Provide general and local exhaust ventilation systems to maintain airborne concentrations below the OSHA PEL level.

Others: Never drink, eat or smoke in work areas. Practice good personal hygiene after using this material and before eating, drinking and smoking.

Section 8. Spill and Leak Procedures

Notify safety personnel, isolate and ventilate the area. Stay up wind. Remove all ignition sources. For small spills, absorb with sand or other absorbents and place suitable containers for later disposal. For large spills, dike ahead for a later disposal or reclamation. For disposal, follow applicable federal, state, and local regulations.

Section 9. Special Precautions

Storage: Prevent physical damage to containers. Store in steel drums, in a cool, dry, well-ventilated area, away from sunlight and incompatibles, and food.

Section 10. Transportation

DOT Shipping name: N/A

DOT Hazard Class: N/A

ID No.: N/A

DOT Packing Group: N/A **Packing Instr.:** N/A

DOT Label: N/A

Section 11. Federal Regulatory Information

Sara Title III : Section 311/312 : Immediate Health Hazard, Delayed Health Hazard,
Reactive Hazard.

Section 313: 4,4'- Diphenylmethane Diisocyanate, CAS# 101-68-8

Cercla Reportable Quantity: none

The information contained herein is furnished without warranty of any kind. Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.