**MATERIAL SAFETY DATA SHEET**

**440 RAIL GROUT PART A**

**PREFORMED LINE PRODUCTS**

**URETHANE DIVISION**

1700 Woodhurst Lane
Albemarle, North Carolina 28001
704-983-6161

---

**Emergency Phone Number:** Chemtrec 800-424-9300 (within the USA), 202-483-7616 (outside of the USA). Call only in the event of a chemical emergency involving spill, leak, fire exposure, or accident involving chemicals.

**MSDS DATE:** 12/08/06

Preformed Line Products recommends that each customer should study this Material Safety Data Sheet and become aware of the Product hazards. Further, to promote safe handling, each customer should notify his employees, agents and contractors of the information on this Material Safety Data Sheet and any Product hazards. Each customer should familiarize every employee with the Material Safety Data Sheet and any Product hazards.

---

**I. IDENTIFICATION**

**PRODUCT NAME:** 440 Rail Grount Part A

**CHEMICAL FAMILY:** Disocyanate

---

**II. PHYSICAL DATA**

<table>
<thead>
<tr>
<th>Appearance: Liquid</th>
<th>Color: PaleYellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor: Faint</td>
<td>Boiling Point: 640°F</td>
</tr>
<tr>
<td>Vapor Pressure: -0.001</td>
<td>Vapor Density (air=1): No Data</td>
</tr>
<tr>
<td>Specific Gravity: 1.2</td>
<td>Weight Per Gallon: 93 lbs</td>
</tr>
<tr>
<td>Solubility in Water: Reacts</td>
<td>% Volatile by Volume: No Data</td>
</tr>
</tbody>
</table>

---

**III. FIRE AND EXPLOSION HAZARD DATA**

<table>
<thead>
<tr>
<th>Flash Point: 400°F, 204ºC</th>
<th>Method Used: COC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Limits: LFLNE: UFLNE</td>
<td></td>
</tr>
</tbody>
</table>

**Extinguishing Method:** Dry Chemical, foam, carbon dioxide, halogenated agents. If water is used, use large quantities. The reaction between water and isocyanate may be vigorous.

**Special Fire Fighting Procedures:** Fire and Explosion Hazards: Self-contained breathing apparatus with full facemask and protective clothing.

---

**IV. REACTIVITY DATA**

**STABILITY:** Stable under normal conditions

**INCOMPATIBILITY:** Will react with any materials containing active hydrogens, such as water, alcohol, ammonia, amines, alkalies and acids. The reaction with water is very slow under 50ºC, but is accelerated at higher temperatures and in the presence of alkalies, tertiary amines, and metal compounds. Some reaction can be violent.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, nitrogen oxides, ammonia and trace amounts of hydrogen cyanide.

**HAZARDOUS POLYMERIZATION:** May occur. High temperatures in the presence of alkalies, tertiary amines and metal compounds will accelerate polymerization. Possible evolution of carbon dioxide gas may rupture closed containers.

---

**V. HEALTH HAZARD DATA**

**EYE:** Irritant

**SKIN CONTACT:** No irritation is likely to develop following short contact periods with human skin. Skin sensitization and irritation may develop following short contact periods with human skin. Skin sensitization and irritation may develop after repeated and/or prolonged contact with human skin. Prolonged or repeated skin contact with MDI can induce delayed skin reactions several hours after exposure.

**INGESTION:** The acute oral LD50 in rats is probably above 10,000 mg/kg. Relative to other materials a single dose of this product is practically non-toxic by ingestion. Irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

**INHALATION:** Vapors and aerosols can irritate eyes, nose and respiratory passages. Severe overexposure may lead to pulmonary edema. MDI can induce respiratory sensitization with asthma-like symptoms similar to those induced by TDI (toluene diisocyanate). Symptoms include chronic cough, tightness of chest with difficulty in breathing. These symptoms may be immediate or delayed up to several hours after exposure. There are reports that chronic exposures may result in permanent decreases in lung function.

**SYSTEMIC AND OTHER EFFECTS:** No other adverse clinical effects have been associated with exposures to this material.

**CARCINOGEN HAZARD:** No toxicity information is available on this specific preparation; this health hazard assessment is based on information that is available on the properties of its components.

---

**VI. SPILL OR LEAK PROCEDURES**

**FOR INDUSTRIAL USE ONLY**

**AVERAGE STORAGE LIFE:** 12 months at 72°F

**STORAGE TEMPERATURE:** Room temperature

**WASTE DISPOSAL METHOD:** Slowly stir the isocyanate waste into the decontamination solution described above using 10 parts of the solution for each part of the isocyanate. Let stand 48 hours, allowing the evolved carbon dioxide to vent away. Neutralize the waste. Neither the solid nor the liquid portion is a hazardous waste under RCRA, 40 CFR 261.30.

**TECHNICAL NAME:** Modified Diphenylmethane Diisocyanate

**D.O.T. HAZARD CLASS:** Non-regulated

**FREIGHT CLASS:** Pkg. Chemical NO3 (Isocyanate), Bulk. Isocyanate

**FOR INDUSTRIAL USE ONLY**

---

**VIII. HANDLING PRECAUTIONS**

**EXPOSURE GUIDELINES:** Prevent skin and eye contact. Observe TLV limitations. Avoid breathing vapors or aerosols. Workers should shower and change to fresh clothing after each shift. A sensitized individual should not be exposed to the product which caused the sensitization. Individuals with existing respiratory disease such as chronic bronchitis, emphysema or asthma should not be exposed to isocyanates. These individuals should be identified through baseline and annual evaluation and removed from further exposure. Medical examination should include medical history, vital capacity, and forced expiratory volume at one second.

**VENTILATION AND RESPIRATORY PROTECTION:** If needed, use local exhaust ventilation to keep airborne concentrations below the TLV. Follow guidelines in the ACGIH publication "Industrial Ventilation". Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

**EYE PROTECTION:** Chemical tight goggles; face shield in addition if splashing is possible.

**SKIN PROTECTION:** Impervious gloves. Additional protection such as apron, arm covers, or full body suit may be required. Wash contaminated clothing before reusing.

**SPECIAL HANDLING PRECAUTIONS:** Prevent skin and eye contact. Observe TLV limitations. Avoid breathing vapors or aerosols. Workers should shower and change to fresh clothing after each shift. A sensitized individual should not be exposed to the product which caused the sensitization.

**STORAGE TEMPERATURE:** Room temperature

**AVERAGE STORAGE LIFE:** 12 months at 72°F

**SPECIAL STORAGE PRECAUTIONS:** Store in tightly sealed containers to protect from atmospheric moisture. Store in cool area, away from open flame or sparks.

---

**IX. SHIPPING DATA**

**D.O.T. SHIPPIING NAME:** NE

**TECHNICAL NAME:** Modified Diphenylmethane Disocyanate

**D.O.T. HAZARD CLASS:** Non-regulated

**FREIGHT CLASS:** Pkg. Chemical NO3 (Isocyanate), Bulk. Isocyanate

**NOTE:** The opinions expressed herein are those of qualified personnel within the Preformed Line Products-Urethane Division Co. The information contained is believed to be current as of the date of this Material Safety Data Sheet. Since the use of this information and opinions and conditions of the use of the product are not within the control of Preformed Line Products Co., it is the user’s obligation to determine the conditions of safe use of the Product.