

# SAFETY DATA SHEET

## Section 1: Product and Company Identification

Product Identifier: **Cured Polyurethane**

General Use: Polyurethane is an elastomeric material used in various industries

Company Profile:

PSI Urethanes, Inc.

10503 Metropolitan Dr.

Austin TX 78758

512-835-5873

[www.psiurethanes.com](http://www.psiurethanes.com)

Emergency Telephone Number: 512-835-5873

## Section 2: Hazard Identification

### ***Emergency Overview***

Acute: Fumes from hot work on or near polyurethane products can be irritating and lead to coughing. These fumes could contain traces of TDI, MDI, other isocyanates, and/or curatives. Skin or airborne exposure to isocyanates may produce an asthma-like lung sensitization with shortness of breath, wheezing or cough, which may occur after re-exposure to very low levels. Skin contact with some polyurethane products may result in skin sensitization or an asthma-like lung sensitization. Chronic: Animal studies indicate that chronic inhalation or overexposure of dusts may cause inflammation of the lungs, fibrosis, and airway destruction.

### ***Severe Immediate Hazards***

Dusts from grinding operations may aggravate existing lung disorders when proper protection is not used.

### ***OSHA Regulatory Status***

POLYURETHANE ELASTOMERS ARE FULLY REACTED POLYMERS FORMING ARTICLES WHICH ARE NOT CONSIDERED HAZARDOUS UNDER OSHA's CRITERIA 29 CFR 1910.1200. HOWEVER, HAZARDOUS DUSTS, VAPORS, GASES, OR FUMES MAY BE RELEASED BY MECHANICAL OR THERMAL PROCESSING, OR BY THERMAL DECOMPOSITION

### ***Potential Health Effects***

Routes of Exposure: Skin and Inhalation

Lengths of Exposure: Single, Repeated, and Lifetime Severity of Effect: Severe

Target Organs: Lung and Skin

### ***Effects/Symptoms***

See acute and chronic effects in Emergency Overview.

Carcinogenicity. Cured polyurethane is not listed as a carcinogen.

## Section 3: Composition, Information on Ingredients

### **Hazardous Components**

(Specific Chemical Identity: Common Names(s))	% (Wt.NoI.) (Optional)	CAS#
None	N/A	N/A

## Section 4: First Aid Procedures

Flush eyes with water if dust from grinding causes irritation.

Note to Physicians (if available) None

## Section 5: Fire Fighting Measures

### **Extinguishing Media**

Water, dry chemical, foam, or carbon dioxide

### **Fire Fighting Instructions**

Evacuate non-emergency personnel to a safe area. Firefighters should use self-contained breathing apparatus. Avoid breathing smoke, fumes, and decomposition products. Use water spray to quench smoldering elastomers, Product may melt after ignition, to form flammable liquids.

Burning produces intense heat, dense smoke, and toxic gases, such as isocyanates, carbon monoxide, oxides of nitrogen, and traces of hydrogen cyanide. Do not breathe smoke. Smoke released, even after fire is out, may contain high concentrations of isocyanates hundreds of feet away. Do not remove self-contained breathing apparatus until smoke is gone and area is completely ventilated with clean air.

## Section 6: Accidental Release Measures

### **Safeguards (Personal)**

None

### **Spill Clean Up**

Pick up and handle as any other solid material.

## Section 7: Handling and Storage

### **Handling**

None in normal use. Thermal degradation may occur at temperatures as low as 150°C (300°F), releasing hazardous gas, vapor or fumes.

### **Storage**

Store elastomers in areas equipped with sprinkler systems. Store away from sparks, flames, or other ignition sources,

## Section 8: Exposure Controls, Personal Protection

### **Permissible Exposure Limits (PELS TLVs BEIs)**

There are no applicable exposure limits for cured polyurethane materials. There are limits for TD1 and MDI which may be released under some heat processing activities.

The current OSHA Permissible Exposure Limit for both TDI and MDI is 0.02 ppm (Ceiling). A ceiling limit is not to be exceeded.

The current American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) for TDI is 0.005 ppm for an 8 hour TWA, with a 15 minute Short Term Exposure Limit (STEL) of 0.02 ppm. TDI is also indicated as a "Sensitizer" by ACGIH. The 8 hour TLV for MDI is 0.005 PPM TWA. The TLV for TDI is under the 2006 ACGIH notice of intended changes. The proposed change is to lower the TLV for TDI to 0.001 ppm for an 8 hour TWA, with a 15 minute STEL of 0.003 ppm. The proposal for TDI also recommends adding a "Skin" notation and making the cancer designation "A3 — Confirmed Animal Carcinogen with Unknown Relevance to Humans".

### ***Personal Protective Equipment***

Eye/Face Protection: None required in normal use. For grinding operations, use safety goggles, and face shield, Skin Protection: None required in normal use. Respiratory Protection: Use NIOSH approved respirator. For low temperature grinding operations - wear a dust respirator. If generating gas, vapor, and fumes from hot wire, hot knife, or other thermal processing operations (including potentially some grinding operations) - wear an air-purifying respirator with organic cartridge or supplied-air respirator if ventilation is inadequate. Replace cartridge according to respirator manufacturer's changeout schedule.

### ***General Protection***

None required.

### ***Engineering Controls***

Local exhaust recommended for thermal processing operations, as required to reduce dust, gas, and vapor fume exposure below OSHA levels,

## **Section 9: Physical and Chemical Properties**

### ***Appearance and Odor***

Solid, no odor.

### ***Physical State***

Solid

PH N/A

Flammable Properties Dusts from processing operations may be combustible.

Flash Point: Not Applicable

Flammable Limits: LEL: Not Applicable UEL: Not Applicable

Vapor Pressure N/A

Vapor Density N/A

Boiling Point N/A

Freezing /Melting Point Melts 380°F - 450°F May degrade above 300°F (150°C)

Solubility in Water Insoluble

Specific Gravity 1.05 - 1.25

Evaporation Rate N/A

Other None

## **Section 10: Stability and Reactivity Stable**

### ***Incompatibility With Other Material***

Strong acids or bases

### ***Hazardous Decomposition or By-products***

Decomposition through burning produces fumes consisting of organic particulate, gaseous hydrocarbons, carbon dioxide, carbon monoxide and may contain traces of toluene diisocyanate (TDI) or diphenylmethane diisocyanate (MDI), other isocyanates, curatives, hydrogen cyanide, acrolein and oxides of nitrogen.

### ***Hazardous Reaction, Conditions to Avoid: ‘***

Hazardous reactions will not occur, Avoid direct contact with flame or other heat sources that can result in release of fumes.

## **Section 11: Toxicological Information**

### ***Toxicological Data***

Under normal conditions not applicable.

## **Section 12: Ecological information**

### ***Ecological Data***

Under normal conditions not applicable.

## **Section 13: Disposal Considerations**

### ***Waste Disposal***

Not considered a hazardous material. Dispose of material according to any local, state, and federal regulations.

## **Section 14: Transport Information**

### ***Shipping Information***

Not regulated as a hazardous material.

## **Section 15: Regulatory Information**

U.S. Federal Regulations

TSCA

Health & Safety Reporting List: N/A Chemical Test Rules N/A

Section 12b N/A

TSCA Significant New Use Rule N/A

CERCLA Hazardous Substances and corresponding RQs N/A

SARA

Section 302 Extremely Hazardous Substances N/A SARA Codes N/A

Section 313 N/A

Clean Air Act: N/A Clean Water Act: N/A

U.S. State Regulations

STATE: N/A

California Prop 66 N/A

International Regulations

European/International Regulations N/A

European Labeling in Accordance with EC Directives Hazard Symbols:

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

Canada - DSL/NDSL N/A Canada — WHAMS N/A

## **Section 16: Other Information**

### ***Additional Information***

None

### ***Revision date***

5-29-15

Note: This information is believed to be accurate and represents the information currently available. However, no warranty is expressed or implied with respect to such information, and no liability resulting from its use is assumed. Users should make their own investigations to determine the suitability of the information for their particular purposes.