



2415 Pleasant View Rd.

Middleton, WI 53562

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200.

MATERIAL NAME: Cured Polyurethane

Section 1: Chemical Product

Material Identification: Cured polyurethane

Product Information Telephone Number 1-800-837-6010

Section 2: Composition, Information on Ingredients

Hazardous Components Identity:	Specific Chemical Common Names(s)	%(Wt./Vol.) (Optional)	CAS	Other Limits Recommended	PEL	TLVs
	None		N/A	N/A	N/A	N/A

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.

Section 3: Hazard Identification

Emergency Overview

Acute: *Fumes from hot wire cutting 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.

Potential Health Effects

Routes of Exposure:	<input checked="" type="checkbox"/> Skin	<input checked="" type="checkbox"/> Inhalation	<input type="checkbox"/> Ingestion		
Lengths of Exposure:	<input type="checkbox"/> Single	<input checked="" type="checkbox"/> Repeated	<input checked="" type="checkbox"/> Lifetime		
Severity of Effect:	<input type="checkbox"/> Mild	<input type="checkbox"/> Moderate	<input checked="" type="checkbox"/> Severe		
Target Organs:	<input type="checkbox"/> Liver	<input type="checkbox"/> Kidney	<input checked="" type="checkbox"/> Lung	<input checked="" type="checkbox"/> Skin	<input type="checkbox"/> _____



2415 Pleasant View Rd.

Middleton, WI 53562

Effects/Symptoms

See **acute** and **chronic** effects in *Emergency Overview*.

Carcinogenity

Cured polyurethane is not listed as a carcinogen.

Section 4: First Aid Procedures

Procedures

Flush eyes with water if dust from grinding causes irritation.

Note to Physicians (if available)

None

Section 5: Fire Fighting Measures

Flammable Properties

Flash Point: Not Applicable

Flammable Limits: LEL: Not Applicable UEL: Not Applicable

Dusts from processing operations may be combustible.

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

Cutting elastomer by hot wire or hot branding, or other thermal processing can form decomposition products. Local exhaust ventilation should be used to remove any fumes. If isocyanates or curatives are emitted, ventilation must be sufficient to ensure levels below the TLV for TDI (0.005 PPM TWA/0.02 PPM STEL), MDI (0.005 PPM TWA), other isocyanates, or curatives. Also, see respiratory protection below.

Storage

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

Section 8: Exposure Controls, Personal Protection

Engineering Controls

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

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 (specify type)

Use NIOSH approved respirator. For grinding operations - wear a dust respirator. If generating gas, vapor, and fumes from hot wire, hot knife, or other thermal processing operations - wear an air-purifying respirator with organic cartridge or supplied-air respirator if ventilation is inadequate.

General Protection

None required.

Section 9: Physical and Chemical Properties

Appearance and Odor

Solid, no odor.

Vapor Density

N/A

Solubility in Water

Insoluble

Physical State

Solid

Boiling Point

N/A

Specific Gravity

1.05 - 1.25

PH

N/A

Freezing /Melting Point

Melts 380°F - 450°F

Evaporation Rate

N/A

Vapor Pressure

N/A

May degrade above 300°F

(150°C)

Other

None

Section 10: Stability and Reactivity

x Stable o Unstable

Conditions to Avoid: None

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.



2415 Pleasant View Rd.

Middleton, WI 53562

Hazardous Polymerization May Occur Hazardous Polymerization Will Not Occur Conditions to Avoid:

- o Hazardous Polymerization May Occur
- x Hazardous Polymerization Will Not Occur

Conditions to Avoid: *None*

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 65 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/NDL N/A
Canada - WHMIS N/A

Section 16: Other Information



2415 Pleasant View Rd.

Middleton, WI 53562

Additional Information

None

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.

By Theodore J. Hogan & Associates, Inc. June 22, 2005