

MATERIAL SAFETY DATA SHEET

COMPANY NAME: C.U.E. Inc.
MATERIAL NAME: Cast Polyurethane Elastomer

Section 1: Chemical Product / Company Identification

Material Identification Urethane Products or Articles

Company Identification / Mailing Address

C.U.E. Inc.
11 Leonberg RD
Cranberry Twp, PA 16066-3601
e-mail: cue@cue-inc.com
Usual operating hours: Mon-Thurs 7:00 a.m. – 5:30 p.m.; Friday 8:00 a.m. – 4:30 p.m.

Date Prepared: 5/17/06
Product Information Telephone Number Phone: 724-772-5225 Fax: 724-772-5280
Transport Emergency Telephone Number Phone: 724-772-5225
Medical Emergency Telephone Number Phone: 724-772-5225
Other Telephone Number n/a

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.

Carcinogeny

Cured polyurethane is not listed as a carcinogen.

Potential Environmental Effects

None known.

Section 3: Composition, Information on Ingredients

Hazardous Components

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

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

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 TDI 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: N/A UEL: N/A
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 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/NDSL N/A
Canada – WHMIS N/A

Section 16: Other Information

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.