

GLENDO LLC

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MATERIAL NAME: URETHANE MATERIAL

TRADE NAME: Urethane Material
PART NUMBERS: 004-726
DISTRIBUTOR'S NAME: Glendo LLC
ADDRESS: 900 Overlander Road, Emporia, KS 66801
PHONE: (620) 343-1084

2. COMPOSITION / INFORMATION ON INGREDIENTS

URETHANE MATERIAL PART A

CHEMICAL NAME	CAS #	ACGIH TWA	OSHA PEL	HAZARD DESIGNATION	WEIGHT %
POLYURETHANE PREPOLYMER	9057-91-4	NONE ESTABLISHED	NONE ESTABLISHED	NONE	99-100
TOLUENE DIISOCYANATE	26471-62-5	0.036 MG/M3	0.005 PPM	HARMFUL	<1

URETHANE MATERIAL PART B

CHEMICAL NAME	CAS #	ACGIH TWA	OSHA PEL	HAZARD DESIGNATION	WEIGHT %
POLYOL /PLASTICIZER BLEND (NON-HAZARDOUS)	N/A	NONE ESTABLISHED	NONE ESTABLISHED	NONE	50-55
DI(METHYLTHIO) TOLUENE DIAMINE	106264-79-3	NONE ESTABLISHED	NONE ESTABLISHED	NOT CLASSIFIED	5-10
PHENYLMERCURIC NEODECANOATE	26545-49-3	NONE ESTABLISHED	NONE ESTABLISHED	HARMFUL	0.1-0.2

3. HAZARDS IDENTIFICATION

URETHANE MATERIAL PART A

Harmful by inhalation. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation.

URETHANE MATERIAL PART B

Harmful by inhalation. Harmful if in contact with skin and if swallowed. Irritating to eyes. Danger of cumulative effects.

4. FIRST AID MEASURES

URETHANE MATERIAL PART A

EYE CONTACT: Flush eyes with plenty of water. If irritation persists, seek medical attention.

SKIN CONTACT: In case of skin contact, wash thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Seek medical attention if rash develops.

4. FIRST AID MEASURES (continued)

INHALATION CONTACT: Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

INGESTION CONTACT: Do not induce vomiting unless instructed by a physician. Contact physician immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

URETHANE MATERIAL PART B

EYE CONTACT: Flush eyes with plenty of water. If irritation persists, seek medical attention.

SKIN CONTACT: In case of skin contact, wash thoroughly with soap and water. Remove contaminated clothing and launder before reuse.

INHALATION CONTACT: Remove source(s) of contamination and move victim to fresh air.

INGESTION CONTACT: Do not induce vomiting unless instructed by a physician. Contact physician immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

5. FIRE, EXPLOSION DATA AND MEASURES

URETHANE MATERIAL PART A

FLAMMABILITY: Non-flammable

FLASH POINT: >270°F (132°C)

FLAMMABLE LIMITS: LEL: Not Established **UEL:** Not Established

EXTINGUISHING MEDIA: Water Fog, Dry Chemical, Carbon Dioxide Foam

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS: Fire fighters should wear self-contained breathing apparatus. Do not release runoff from fire control methods to sewers or waterways. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure demand or positive-pressure mode.

EXPLOSION AND VAPORS: Hazardous decomposition products may be formed. Avoid water contamination in closed containers or confined areas as exothermic heat and carbon dioxide can evolve.

URETHANE MATERIAL PART B

FLAMMABILITY: Non-flammable

FLASH POINT: >270°F (132°C)

EXTINGUISHING MEDIA: Water Fog, Dry Chemical, Carbon Dioxide Foam

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS: Fire fighters should wear self-contained breathing apparatus. Do not release runoff from fire control methods to sewers or waterways. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

EXPLOSION AND VAPORS: none

6. ACCIDENTAL RELEASE MEASURES

URETHANE MATERIAL PART A

SPILL /LEAK PROCEDURES: Only properly protected personnel should remain in the spill area. Dike and contain spill. Absorb or scrape up excess into suitable container for disposal. Wash area with dilute ammonia solution. Stop or reduce discharge if it can be done safely.

URETHANE MATERIAL PART B

SPILL /LEAK PROCEDURES: Dike and contain spill. Absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely. Follow applicable OSHA regulations (29 CFR 1910.120).

7. HANDLING AND STORAGE

URETHANE MATERIAL PART A

HANDLING: Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Avoid moisture contamination. Reseal partial containers. Use good general housekeeping procedures.

STORAGE: Store in a cool, dry, and well-ventilated area.

URETHANE MATERIAL PART B

HANDLING: Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Use good general housekeeping procedures.

STORAGE: Store in a cool, dry, and well-ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

URETHANE MATERIAL PART A

PERSONAL PROTECTIVE EQUIPMENT (PPE) DURING PRODUCT USE

EYE PROTECTION: Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

RESPIRATORY PROTECTION: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

SKIN PROTECTION: Wear chemically protective gloves, boots, and aprons to prevent prolonged or repeated skin contact.

COMMENTS: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

URETHANE MATERIAL PART B

PERSONAL PROTECTIVE EQUIPMENT (PPE) DURING PRODUCT USE

EYE PROTECTION: Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

RESPIRATORY PROTECTION: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

SKIN PROTECTION: Wear chemically protective gloves, boots, and aprons to prevent prolonged or repeated skin contact.

COMMENTS: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

9. PHYSICAL AND CHEMICAL PROPERTIES

URETHANE MATERIAL PART A

APPEARANCE: clear yellow viscous liquid

PHYSICAL STATE: liquid

ODOR: sharp pungent odor

9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

SOLUBILITY: negligible

BOILING POINT: none (polymeric resin)

SPECIFIC GRAVITY: 1.04

MELTING POINT: none (polymeric resin)

VAPOR DENSITY: >1

VAPOR PRESSURE: none (polymeric resin)

VISCOSITY: 50 poise

URETHANE MATERIAL PART B

APPEARANCE: dark amber to dark brown liquid

PHYSICAL STATE: liquid

ODOR: sharp pungent odor

SOLUBILITY: negligible

BOILING POINT: none (polymeric resin)

SPECIFIC GRAVITY: 1.06

MELTING POINT: none determined

VAPOR DENSITY: >1

VAPOR PRESSURE: none (polymeric resin)

VISCOSITY: 5 poise

10. STABILITY AND REACTIVITY

URETHANE MATERIAL PART A

STABILITY: Stable at room temperature in closed containers under normal storage and handling conditions.

CONDITIONS TO AVOID: Avoid contamination with water and other materials that react with Isocyanates.

MATERIALS TO AVOID: Strong bases, water, amines, alcohols.

HAZARDOUS DECOMPOSITION PRODUCTS: TDI vapors, hydrogen cyanide gas, oxides of nitrogen, carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION: Hazardous polymerization can occur.

URETHANE MATERIAL PART B

STABILITY: Stable at room temperature in closed containers under normal storage and handling conditions.

CONDITIONS TO AVOID: Avoid contamination with water and other materials that react with amines.

MATERIALS TO AVOID: Strong acids and oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen, carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION: Hazardous polymerization cannot occur.

11. TOXICOLOGICAL INFORMATION

URETHANE MATERIAL PART A

HAZARDOUS COMPONENT: Toluene Diisocyanate (TDI)

ORAL RAT LD50: 5800 mg/kg

INHALATION RAT LC50: 140 ppm/4 hr.

INHALATION MOUSE LC50: 10 ppm/4 hr.

11. TOXICOLOGICAL INFORMATION (continued)**URETHANE MATERIAL PART B**

None Established

12. ECOLOGICAL INFORMATION**URETHANE MATERIAL PART A**

None Established

URETHANE MATERIAL PART B

None Established

13. DISPOSAL CONSIDERATIONS**URETHANE MATERIAL PART A****DISPOSAL:** Must be disposed of in accordance with local regulations.**URETHANE MATERIAL PART B****DISPOSAL:** Must be disposed of in accordance with applicable local regulations.**14. TRANSPORT INFORMATION****URETHANE MATERIAL PART A****DOT:** not regulated**IATA:** not regulated**IMDG:** not regulated**URETHANE MATERIAL PART B****DOT:** not regulated**IATA:** not regulated**IMDG:** not regulated**15. REGULATORY INFORMATION****URETHANE MATERIAL PART A****UNITED STATES EPA REGULATIONS:** CERCLA Hazardous Substance (40 CFR 302.4) listed specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

<u>Chemical Name</u>	<u>RQ</u>	<u>% Reportable Component</u>
TOLUENE DIISOCYANATE	100 LBS.	<1.0

SARA EHS (EXTREMELY HAZARDOUS SUBSTANCE) (40 CFR 355):

<u>Chemical Name</u>	<u>CAS #</u>	<u>% by Weight</u>
TOLUENE DIISOCYANATE	26471-62-5	<1.0

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS THAT ARE SUBJECT TO RELEASE REPORTING REQUIREMENTS UNDER SECTION 313 OF SARA TITLE III.

<u>Chemical Name</u>	<u>CAS #</u>	<u>% by Weight</u>
TOLUENE DIISOCYANATE	26471-62-5	<1.0

15. REGULATORY INFORMATION (continued)

TSCA INVENTORY STATUS (40 CFR710): All components of this formulation are listed in the TSCA Inventory.

CALIFORNIA PROPOSITION 65: This product contains toluene diisocyanate, which has been identified by the state of California to cause cancer.

CANADIAN REGULATIONS

WHMIS IDENTIFICATION: D2A, D2B

CDSL/NDL (CANADIAN DOMESTIC SUBSTANCE LIST/NON DOMESTIC SUBSTANCE LIST): Listed on CDSL

LABELING ACCORDING TO EEC DIRECTIVE

Risk Phrases	Symbol(s) Required for EU Label	Safety Phrases
R20: Harmful by inhalation. R40: Limited evidence of a carcinogenic effect. R42: May cause sensitization by inhalation	XN: Harmful	S1/2: Keep locked up and out of reach of children S23: Do not breath vapors S36/37: Wear suitable protective equipment. S45: In case of an accident or if you feel sick, seek medical attention S61: Avoid release to the environment. Refer to special instructions/safety data sheets.

URETHANE MATERIAL PART B

UNITED STATES EPA REGULATIONS:

SARA TOXIC CHEMICAL (40 CFR 372.65): These products contain the following chemicals that are subject to release reporting requirements under section 313 of SARA Title III.

COMPONENTS THAT REQUIRE REPORTING RQ % OF REPORTABLE COMPONENT: Mercury (as part of catalyst)
1 lb. 0.074

US TSCA INVENTORY STATUS (40 CFR 710): All components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: This product contains a mercury compound, which has been identified by the state of California to cause birth defects or other reproductive harm.

CANADIAN REGULATIONS

WHMIS IDENTIFICATION: D2A, D2B

CDSL/NDL (CANADIAN DOMESTIC SUBSTANCE LIST/NON DOMESTIC SUBSTANCE LIST): Listed on CDSL

LABELING ACCORDING TO EEC DIRECTIVE

Risk Phrases	Symbol(s) Required for EU Label	Safety Phrases
R20/R21/22: Harmful by inhalation. Harmful if in contact with skin and if swallowed. R36: Irritating to eyes. R33: Danger of cumulative effects.	XN: Harmful	S1/S2: Keep locked up and out of reach of children. S13: Keep away from food, drink and animal foodstuffs. S28: After contact with skin, wash immediately with plenty of soap. S36/37/39: Wear suitable protective clothing, gloves and eye and face protection. S45: In case of accident or if you feel ill, seek medical advice immediately. S60: This material and container must be disposed as hazardous waste. S61: Avoid release to the environment. (See MSDS).

16. OTHER INFORMATION

The information contained herein is based on data considered to be accurate; however, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

Vendor assumes no responsibility for injury to vendee or third party persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the material safety data sheet.

Additionally, vendor assumes no responsibility for injury to vendee or third party persons proximately caused by abnormal use of this material even if reasonable safety procedures are followed.

Vendee assumes the risk in use of this material.

CREATION DATE	CREATED BY	
03/2013	R. Fessler	
REVISION DATE	REVISED BY	REASON FOR REVISION
08/13/2014	R. Fessler	Content Review