Material Safety Data Sheet

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1. Chemical Product and Company Identification

DESCRIPTION: ELMER'S ULTIMATE GLUE
PRODUCT TYPE: POLYURETHANE
APPLICATION: FOR PRODUCT CODES SEE SECTION 16

- **Manufacturer/Supplier Information**

MSDS Prepared by:
Elmer's Products, Inc.
1 Easton Oval
Columbus, OH 43219

Emergency Phone Number
Poison Control Center
888-516-2502

For additional health, safety or regulatory information, call 888-435-6377.
Call 1-800-848-9400 to place an order or request additional MSDSs.

2. Composition, Information on Ingredients

The ingredients listed below have been associated with one or more immediate and/or delayed(*) health hazards. Risk of damage and effects depends upon duration and level of exposure. BEFORE USING, HANDLING, OR EXPOSURE TO THESE INGREDIENTS, READ AND UNDERSTAND THE MSDS.

		% by weight
101-68-8	*Diphenylmethane 4,4'-Diisocyanate	10-30
9016-87-9	*Polymeric Diphenylmethane Diisocyanate	30-50
	*Modified Polymeric MDI	50-70

3. Hazards Identification

3.1 Emergency Overview

Appearance: Viscous dark brown liquid
Odor: Slightly musty

WARNING!
Hazardous polymerization may occur.
Will burn.
Reacts with water.
Harmful if inhaled. If material is heated, sprayed or otherwise dispersed, may cause irritation of nose, throat and lungs.
May cause allergic skin and respiratory reactions.
May be harmful if absorbed through skin.
Causes skin irritation.
Causes eye irritation.

- **HMIS Rating**

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      HEALTH = 3 (serious)
FLAMMABILITY = 1 (slight)
  REACTIVITY = 1 (slight)
     CHRONIC = *
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3.2 Potential Health Effects

- **Immediate Hazards**

INGESTION:	Not expected to be harmful under normal conditions of use. If accidentally swallowed, burns or irritation to mucous membranes, esophagus or GI tract can result.
INHALATION:	Harmful if inhaled. If material is heated, sprayed or otherwise dispersed, may cause irritation of nose, throat and lungs. Concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Effects may be delayed.
SKIN:	Skin contact may result in allergic skin reactions or respiratory sensitization. However, it is not expected to result in absorption of amounts sufficient to cause other adverse effects. Causes irritation.
EYES:	Causes irritation.

- **Delayed Hazards**

Diphenylmethane 4,4'-Diisocyanate 101-68-8
Lung tumors have been observed in laboratory animals exposed to aerosol droplets of diphenylmethane 4,4'-diisocyanate (MDI)/polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. This material has not been listed by NTP, classified by IARC, nor regulated by OSHA as a carcinogen.
May cause allergic skin and respiratory reactions.
Can cause lung damage. Pre-existing respiratory disorders may be aggravated by exposure.
Polymeric Diphenylmethane Diisocyanate 9016-87-9
Lung tumors have been observed in laboratory animals exposed to aerosol droplets of diphenylmethane 4,4'-diisocyanate (MDI)/polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. This material has not been listed by NTP, classified by IARC, nor regulated by OSHA as a carcinogen.
May cause allergic skin and respiratory reactions.
Can cause lung damage. Pre-existing respiratory disorders may be aggravated by exposure.
Modified Polymeric MDI
May cause allergic skin and respiratory reactions.
-- See Footnote C.
Footnote C: As of the date of issuance of this document, this material has not been listed by NTP, classified by IARC nor regulated by OSHA as a carcinogen.

4. First Aid Measures

INGESTION:	If accidentally swallowed, dilute by drinking large quantities of water. Immediately contact poison control center or hospital emergency room for any other additional treatment directions.
INHALATION:	If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.
SKIN:	Immediately wash with soap and plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if symptoms occur. Wash clothing and shoes before reuse.
EYES:	Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to insure water contact with entire surface of eyes and lids. Call a physician.

5. Fire Fighting Measures

Flash Point	>250 deg F (121 deg C)

Will burn.
In case of fire, DO NOT use water. Use dry chemical or CO2.

6. Accidental Release Measures

Soak up with absorbent material and remove to a chemical disposal area. Prevent entry into natural bodies of water.

7. Handling and Storage

7.1 Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing.
Wash thoroughly after handling. Always use appropriate Personal Protective Equipment (PPE).
INHALATION: Do not breathe vapor. Use with adequate ventilation.
SKIN: Avoid contact with skin and clothing.
EYES: Avoid contact with eyes.

7.2 Storage

Keep container closed.
Keep from freezing.
Keep in tightly sealed containers and store in a cool dry place, avoiding exposure to heat, light, moisture and air.
Store at 60-100 F (16-38 C).

8. Exposure Controls/Personal Protection

8.1 Exposure Controls

ENGINEERING CONTROLS: The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate.
If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

8.2 Personal Protection

Wear synthetic apron and boots if contact is likely. Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA laws and regulations or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Use goggles and face shield if contact is likely. Wear impervious gloves as required to prevent skin contact.

8.3 Exposure Guidelines

Diphenylmethane 4,4'-Diisocyanate 101-68-8
ACGIH TLV: 0.005 ppm (0.051 mg/m³) TWA
OSHA PEL: 0.02 ppm (0.2 mg/m³) Ceiling
Polymeric Diphenylmethane Diisocyanate 9016-87-9
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED
Modified Polymeric MDI
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED

9. Physical and Chemical Properties

pH @ 25 C	Not applicable
Specific Gravity	1.14
Appearance	Viscous dark brown liquid
Boiling Point	Not applicable
Vapor Density (Air=1)	8.5 approx.
Vapor Pressure, mm Hg @ 20 C	<0.0003
Evaporation Rate (Butyl Acetate=1)	Not available
Flash Point	>250 deg F (121 deg C)
Melting point	Not available
Odor	Slightly musty
Odor Threshold, ppm	0.4 (4,4'-Diphenylmethane diisocyanate)
Solubility (other)	Soluble in most organic solvents
Solubility in Water	Reacts with water

10. Stability and Reactivity

Normally stable, but will react with water.

- **Incompatibilities:**

Contact with water, alcohols, amines and alkalies causes polymerization.

- **Decomposition products may include:**

None known to company.

- **Hazardous polymerization:**

May occur.

- **Other Hazards:**

None known to company.

11. Toxicological Information

See Section 3 Hazards Identification information.
Diphenylmethane 4,4'-Diisocyanate 101-68-8
LC50: rat=178 mg/m³ (RTECS)
LD50: orl-mus=2200 mg/kg (RTECS)
Polymeric Diphenylmethane Diisocyanate 9016-87-9
LC50: rat=490 mg/m³/4H (respirable aerosol)
LD50: orl-rat>5000 mg/kg; skn-rbt>5000 mg/kg
Modified Polymeric MDI
LC50: Not available
LD50: Not available

12. Ecological Information

Not determined.

13. Disposal Considerations

Recover free liquid. Absorb residue and dispose of according to local, state/provincial, and federal requirements.

14. Transport Information

14.1 U.S. Department of Transportation (DOT)

The data provided in this section is for information only and may not be specific to your package size. You will need to apply the appropriate regulations to properly classify your shipment for transportation.
Non-Regulated.

14.2 Canadian Transportation of Dangerous Goods (TDG)

Non-Regulated.

15. Regulatory Information (Selected Regulations)

15.1 U.S. Federal Regulations

- **OSHA Hazard Communication Standard 29CFR1910.1200**

This material is a "health hazard" and/or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration 29 CFR Part 1910.1200 "Hazard Communication" Standard.

- **SARA Title III: Section 311/312**

Reactivity hazard
Immediate health hazard
Delayed health hazard

- **SARA Title III Section 313 and 40 CFR Part 372**

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372.

Methylenebis(4-phenylisocyanate) (MDI)	101-68-8	28.00%
Polymeric Diphenylmethane Diisocyanate	9016-87-9	45.00%

- **TSCA Section 8(b) Inventory**

All reportable chemical substances are listed on the TSCA Inventory. We rely on certifications of compliance from our suppliers for chemical substances not manufactured by us.

15.2 Canadian Regulations

- **Workplace Hazardous Materials Information System (WHMIS)**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR.

CLASS D, DIV 1A
CLASS D, DIV 2A, 2B

- **Canadian Environmental Protection Act (CEPA)**

All reportable chemical substances are listed on the Domestic Substances List (DSL) or otherwise comply with CEPA new substance notification requirements.

- **National Pollutant Release Inventory (NPRI)**

This product contains the following chemical(s) subject to the reporting requirements of the Canadian Environmental Protection Act (CEPA) subsection 16(1), National Pollutant Release Inventory.

Methylenebis(phenylisocyanate)	101-68-8	28.00%
Polymeric Diphenylmethane Diisocyanate	9016-87-9	45.00%

16. Other Information

MSDS covers items:
P9405, P9406, P9410, P9411, P9412, P9413, P9415, P9416, P9417

HL (Cautions Required): Products bearing the HL Health Label (Cautions Required) Seal of The Art & Creative Materials Institute, Inc. (ACMI) are certified to be properly labeled in a program of toxicological evaluation by a medical expert. This program is reviewed by ACMI's Toxicological Advisory Board. These products are certified by ACMI to be labeled in accordance with the chronic hazard labeling standard, ASTM D-4236 and Federal Law, P.L. 100-695.

- **User's Responsibility**

The OSHA Hazard Communication Standard 29CFR 1910.1200 and the Workplace Hazardous Materials Information System (WHMIS) require that the information contained on these sheets be made available to your workers. Educate and train your workers regarding OSHA and WHMIS precautions. Instruct your workers to handle this product properly. Consult with appropriate experts to guard against hazards associated with use of this product and its ingredients.

- **Disclaimer**

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

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