



# MATERIAL SAFETY DATA SHEET

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**Elmer's Products, Inc.**  
**1 Easton Oval**  
**Columbus, OH 43219**

**Emergency Phone Number:**  
**Poison Control Center**  
**1-888-516-2502**

**For additional product information, access our website at [www.elmers.com](http://www.elmers.com) or call 1-888-435-6377. To place an order, call 1-800-848-9400.**

**SUBSTANCE: ELMER'S ULTIMATE GLUE**

**TRADE NAMES/SYNONYMS:**

P9405; P9406; P9411; P9412; P9413; P9415; P9416; P9417; 69406, 69416, 69417

**CREATION DATE:** Jun 08 2007

**REVISION DATE:** Feb 19 2009

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## 2. COMPOSITION, INFORMATION ON INGREDIENTS

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**COMPONENT: POLYMETHYLENE POLYPHENYL ISOCYANATE**

**CAS NUMBER:** 9016-87-9

**PERCENTAGE:** 30-50

**COMPONENT: METHYLENE BISPHENYL ISOCYANATE**

**CAS NUMBER:** 101-68-8

**PERCENTAGE:** 30-50

**COMPONENT: NON-HAZARDOUS SUBSTANCE**

**CAS NUMBER:** Not assigned.

**PERCENTAGE:** 10-30

**COMPONENT: CHLOROBENZENE**

**CAS NUMBER:** 108-90-7

**PERCENTAGE:** <0.01

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## 3. HAZARDS IDENTIFICATION

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**NFPA RATINGS (SCALE 0-4):** HEALTH=2 FIRE=1 REACTIVITY=1

**EMERGENCY OVERVIEW:**

**COLOR:** brown

**PHYSICAL FORM:** liquid

**ODOR:** musty odor

**MAJOR HEALTH HAZARDS:** harmful if inhaled, respiratory tract irritation, skin irritation, eye irritation, allergic reactions

**PHYSICAL HAZARDS:** May react on contact with water.

**POTENTIAL HEALTH EFFECTS:**

**INHALATION:**

**SHORT TERM EXPOSURE:** irritation, allergic reactions, chest pain, difficulty breathing

**LONG TERM EXPOSURE:** allergic reactions, difficulty breathing

**SKIN CONTACT:**

**SHORT TERM EXPOSURE:** irritation, allergic reactions, skin disorders, itching, rash

**LONG TERM EXPOSURE:** irritation, allergic reactions, rash, itching

**EYE CONTACT:**

**SHORT TERM EXPOSURE:** irritation

**LONG TERM EXPOSURE:** irritation

**INGESTION:**

**SHORT TERM EXPOSURE:** gastrointestinal irritation

**LONG TERM EXPOSURE:** no information on significant adverse effects

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4. FIRST AID MEASURES

**INHALATION:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**SKIN CONTACT:** If bonding occurs, immerse the bonded surfaces in warm soapy water. Peel or roll the surfaces apart using a blunt edge, such as a spatula or spoon handle. Do not pull surfaces apart with a direct opposing action. If burns occur, treat as thermal burns. Get medical attention, if needed.

**EYE CONTACT:** If bonding to tissues occurs, wash with large amounts of warm water. Cover both eyes with sterile, dry bandages. The eye will open without further action. Do not pull surfaces apart with a direct opposing action. If burns occur, treat as thermal burns. Get medical attention.

**INGESTION:** Wet lips with water. Peel or roll the surfaces apart using a blunt edge, such as a spatula or spoon handle. Do not pull surfaces apart with a direct opposing action. If a lump forms in the mouth, turn head to side. If burns occur, treat as thermal burns. Get medical attention.

**NOTE TO PHYSICIAN:** For inhalation, consider oxygen. Mineral oil, vegetable oil, or petroleum jelly may help soften the bonding between skin surfaces. For skin contact, consider acetone or nitromethane.

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5. FIRE FIGHTING MEASURES

**FIRE AND EXPLOSION HAZARDS:** Slight fire hazard.

**EXTINGUISHING MEDIA:** carbon dioxide, regular dry chemical, regular foam, water

**FIRE FIGHTING:** Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

**FLASH POINT:** >230 F (>110 C) (CC)

**AUTOIGNITION:** >1112 F (>600 C)

**FLAMMABILITY CLASS (OSHA):** IIIB

**HAZARDOUS COMBUSTION PRODUCTS:**

Thermal decomposition or combustion products: cyanides, oxides of carbon, oxides of nitrogen

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6. ACCIDENTAL RELEASE MEASURES

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**OCCUPATIONAL RELEASE:**

Stop leak if possible without personal risk. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

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7. HANDLING AND STORAGE

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**STORAGE:** Store and handle in accordance with all current regulations and standards. Keep container tightly closed. Store in a well-ventilated area. Avoid contact with water or moisture. Store between 16 C and 38 C. A hazardous build-up of pressure could result due to a reaction with water producing carbon dioxide gas if contaminated containers are resealed. Do not reseal contaminated containers. Reseal uncontaminated containers that are free of moisture only after placing under a nitrogen blanket. Do not store in containers made of copper, copper alloys, or galvanized surfaces. See original container for storage recommendations. Keep separated from incompatible substances.

**HANDLING:** Use only with adequate ventilation. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin or eyes. Wash thoroughly after handling. Do not get in eyes.

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8. EXPOSURE CONTROLS, PERSONAL PROTECTION

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**EXPOSURE LIMITS:**

**POLYMETHYLENE POLYPHENYL ISOCYANATE:**

**METHYLENE BISPHENYL ISOCYANATE:**

0.02 ppm (0.2 mg/m<sup>3</sup>) OSHA ceiling

0.005 ppm ACGIH TWA

0.005 ppm (0.05 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s)

0.020 ppm (0.2 mg/m<sup>3</sup>) NIOSH recommended ceiling 10 minute(s)

**METHYLENE BISPHENYL ISOCYANATE:**

0.02 ppm (0.2 mg/m<sup>3</sup>) OSHA ceiling

0.005 ppm ACGIH TWA

0.005 ppm (0.05 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s)  
0.020 ppm (0.2 mg/m<sup>3</sup>) NIOSH recommended ceiling 10 minute(s)

**VENTILATION:** Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

**EYE PROTECTION:** Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**CLOTHING:** Wear appropriate chemical resistant clothing.

**GLOVES:** Wear appropriate chemical resistant gloves.

**PROTECTIVE MATERIAL TYPES:** neoprene, nitrile, butyl rubber

**RESPIRATOR:** Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. Any dust, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter.

Any powered, air-purifying respirator with a dust, mist, and fume filter.

Any powered, air-purifying respirator with a high-efficiency particulate filter.

**For Unknown Concentrations or Immediately Dangerous to Life or Health -**

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**PHYSICAL STATE:** liquid

**COLOR:** brown

**ODOR:** musty odor

**BOILING POINT:** >572 F (>300 C) (decomposes)

**FREEZING POINT:** Not available

**VAPOR PRESSURE:** 0.000004 mmHg

**VAPOR DENSITY (air=1):** 8.5

**SPECIFIC GRAVITY (water=1):** 1.129

**WATER SOLUBILITY:** reacts, immiscible

**PH:** Not available

**VOLATILITY:** Not available

**ODOR THRESHOLD:** Not available

**EVAPORATION RATE:** Not available

**VISCOSITY:** 2311 cP

**COEFFICIENT OF WATER/OIL DISTRIBUTION:** Not available

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## 10. STABILITY AND REACTIVITY

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**REACTIVITY:** May react on contact with water. Closed containers may rupture.

**CONDITIONS TO AVOID:** Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**INCOMPATIBILITIES:** acids, alcohols, amines, bases, combustible materials, metal salts, metals, oxidizing materials

**HAZARDOUS DECOMPOSITION:**

Decomposition products on contact with water or moisture: oxides of carbon

Thermal decomposition or combustion products: cyanides, oxides of carbon, oxides of nitrogen

**POLYMERIZATION:** Polymerization may occur in the presence of metal compounds, alkalies, and tertiary amines at elevated temperatures.

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## 11. TOXICOLOGICAL INFORMATION

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**ELMER'S ULTIMATE GLUE:**

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** skin disorders, respiratory system (including asthma and other breathing disorders)

**POLYMETHYLENE POLYPHENYL ISOCYANATE:**

**IRRITATION DATA:** 100 mg eyes-rabbit mild

**TOXICITY DATA:** 490 mg/m<sup>3</sup>/4 hour(s) inhalation-rat LC50; >5 ml/kg skin-rabbit LD50; >10000 mg/kg oral-rat LD50

**CARCINOGEN STATUS:** IARC: Human No Adequate Data, Animal No Adequate Data, Group 3

**LOCAL EFFECTS:**

Irritant: inhalation, skin, eye

**ACUTE TOXICITY LEVEL:**

Highly Toxic: inhalation

Relatively Non-toxic: ingestion

**TARGET ORGANS:** immune system (sensitizer)

**TUMORIGENIC DATA:** Available.

**REPRODUCTIVE EFFECTS DATA:** Available.

**ADDITIONAL DATA:** May cross react with similar compounds.

**METHYLENE BISPHENYL ISOCYANATE:**

**IRRITATION DATA:** 500 mg/24 hour(s) skin-rabbit; 100 mg eyes-rabbit moderate

**TOXICITY DATA:** 178 mg/m<sup>3</sup> inhalation-rat LC50; 9200 mg/kg oral-rat LD50

**CARCINOGEN STATUS:** IARC: Human Inadequate Evidence (Monomer), Group 3

**LOCAL EFFECTS:**

Irritant: inhalation, skin, eye

**ACUTE TOXICITY LEVEL:**

Highly Toxic: inhalation

Slightly Toxic: ingestion

**TARGET ORGANS:** immune system (sensitizer)

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** respiratory disorders

**MUTAGENIC DATA:** Available.

**REPRODUCTIVE EFFECTS DATA:** Available.

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## 12. ECOLOGICAL INFORMATION

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Not available

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### 13. DISPOSAL CONSIDERATIONS

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Dispose in accordance with all applicable regulations.

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### 14. TRANSPORT INFORMATION

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**U.S. DEPARTMENT OF TRANSPORTATION:** No classification assigned.

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS:** No classification assigned.

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### 15. REGULATORY INFORMATION

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**U.S. REGULATIONS:**

**CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):**

**METHYLENE BISPHENYL ISOCYANATE:** 5000 LBS RQ

**CHLOROBENZENE:** 100 LBS RQ

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):** Not regulated.

**SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):** Not regulated.

**SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):**

ACUTE: Yes

CHRONIC: Yes

FIRE: No

REACTIVE: No

SUDDEN RELEASE: No

**SARA TITLE III SECTION 313 (40 CFR 372.65):**

**POLYMETHYLENE POLYPHENYL ISOCYANATE**

**METHYLENE BISPHENYL ISOCYANATE**

**OSHA PROCESS SAFETY (29CFR1910.119):** Not regulated.

**STATE REGULATIONS:**

**California Proposition 65:** Not regulated.

**CANADIAN REGULATIONS:**

**WHMIS CLASSIFICATION:** Not determined.

**NATIONAL INVENTORY STATUS:**

**U.S. INVENTORY (TSCA):** All the components of this substance are listed on or are exempt from the inventory.

**TSCA 12(b) EXPORT NOTIFICATION:**

**CHLOROBENZENE**

**CAS NUMBER:** 108-90-7

**SECTION 4**

**CANADA INVENTORY (DSL/NDSL):** Not determined.

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## 16. OTHER INFORMATION

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