**Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Material Name:** Elmer's Glue-All Max

**Manufacturer Information**
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 or call 1-888-435-6377. To place an order, call 1-800-848-9400.

**Trade Names/Synonyms**
E9406; E9415; E9416

**Product Use**
adhesives

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**Section 2 - HAZARDS IDENTIFICATION**

**NFPA Ratings:**
- **Health:** 2
- **Fire:** 1
- **Reactivity:** 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**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:** irritation, allergic reactions, chest pain, difficulty breathing
- **Long Term:** allergic reactions, difficulty breathing

**Skin**
- **Short Term:** irritation, allergic reactions, skin disorders, itching, rash
- **Long Term:** irritation, allergic reactions, rash, itching

**Eye**
- **Short Term:** irritation
- **Long Term:** irritation
**Ingestion**

**Short Term:** gastrointestinal irritation

**Long Term:** no information on significant adverse effects

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

---

### **Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>9016-87-9</td>
<td>POLYMETHYLENE POLYPHENYL ISOCYANATE</td>
<td>30-50</td>
</tr>
<tr>
<td>101-68-8</td>
<td>METHYLENE BISPHENYL ISOCYANATE</td>
<td>30-50</td>
</tr>
<tr>
<td>Not Available</td>
<td>NON-HAZARDOUS SUBSTANCE</td>
<td>10-30</td>
</tr>
<tr>
<td>108-90-7</td>
<td>CHLOROBENZENE</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

---

**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**

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.

**Eyes**

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 Physicians**

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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**Section 4 - FIRST AID MEASURES**

See Section 9 for Flammability Properties

**Flammable Properties**

Slight fire hazard.

**Extinguishing Media**

carbon dioxide, regular dry chemical, regular foam, water

**Fire Fighting Measures**

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.

**Hazardous Combustion Products**

Combustion: cyanides, oxides of carbon, oxides of nitrogen
**Section 6 - ACCIDENTAL RELEASE MEASURES**

Occupational spill/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).

**Section 7 - HANDLING AND STORAGE**

Handling Procedures
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.

Storage Procedures
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.

**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

Component Exposure Limits
METHYLENE BISPHENYL ISOCYANATE (101-68-8)

<table>
<thead>
<tr>
<th>Source</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>0.005 ppm TWA</td>
</tr>
<tr>
<td>NIOSH</td>
<td>0.005 ppm TWA; 0.05 mg/m³ TWA</td>
</tr>
<tr>
<td></td>
<td>0.020 ppm Ceiling (10 min); 0.2 mg/m³ Ceiling (10 min)</td>
</tr>
<tr>
<td>OSHA</td>
<td>0.02 ppm Ceiling; 0.2 mg/m³ Ceiling</td>
</tr>
<tr>
<td>OSHA (Vacated)</td>
<td>0.02 ppm Ceiling; 0.2 mg/m³ Ceiling</td>
</tr>
</tbody>
</table>

CHLOROBENZENE (108-90-7)

<table>
<thead>
<tr>
<th>Source</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>10 ppm TWA</td>
</tr>
<tr>
<td>OSHA</td>
<td>75 ppm TWA; 350 mg/m³ TWA</td>
</tr>
<tr>
<td>OSHA (Vacated)</td>
<td>75 ppm TWA; 350 mg/m³ TWA</td>
</tr>
</tbody>
</table>

Ventilation
Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/face
Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing
Wear appropriate chemical resistant clothing.

Glove Recommendations
Wear appropriate chemical resistant gloves.

Protective Materials
neoprene, nitrile, butyl rubber
Respiratory Protection
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 particulate respirator equipped with an N95, R95, or P95 filter (including N95, R95, and P95 filtering facepieces) except quarter-mask respirators. The following filters may also be used: N99, R99, P99, N100, R100 or P100.

Any air-purifying full-facepiece respirator equipped with an N95, R95, or P95 filter. The following filters may also be used: N99, R99, P99, N100, R100 or P100.

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

Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

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** * * * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES * * * **

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Liquid</th>
<th>Appearance: Brown liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>brown</td>
<td>Physical Form: liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>musty odor</td>
<td>Odor Threshold: Not available</td>
</tr>
<tr>
<td>pH: Not available</td>
<td>Melting/Freezing Point: Not available</td>
<td></td>
</tr>
<tr>
<td>Boiling Point: &gt;300 °C (decomposes)</td>
<td>Flash Point: &gt;110 °C (CC)</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate: Not available</td>
<td>OSHA Flammability Class: IIIB</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure: 0.000004 mmHg</td>
<td>Vapor Density (air = 1): 8.5</td>
<td></td>
</tr>
<tr>
<td>Density: Not available</td>
<td>Specific Gravity (water = 1): 1.129</td>
<td></td>
</tr>
<tr>
<td>Water Solubility: reacts, immiscible</td>
<td>Coeff. Water/Oil Dist: Not available</td>
<td></td>
</tr>
<tr>
<td>Auto Ignition: &gt;600 °C</td>
<td>Viscosity: 2311 cP</td>
<td></td>
</tr>
<tr>
<td>Volatility: Not available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

** * * * Section 10 - STABILITY AND REACTIVITY * * * **

Chemical Stability
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.

Materials to Avoid
acids, alcohols, amines, bases, combustible materials, metal salts, metals, oxidizing materials

Hazardous Decomposition
Water or Moisture: oxides of carbon

http://elmers.com/docs/default-source/msds-sheets/me9406-htm.htm?sfvrsn=0[12/1/2014 1:30:44 PM]
Hazardous Decomposition
Combustion: cyanides, oxides of carbon, oxides of nitrogen
Possibility of Hazardous Reactions
Polymerization may occur in the presence of metal compounds, alkalis, and tertiary amines at elevated temperatures.

* * * Section 11 - TOXICOLOGICAL INFORMATION * * *

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:

POLYMETHYLENE POLYPHENYL ISOCYANATE (9016-87-9)
Inhalation LC50 Rat 490 mg/m3 4 h; Oral LD50 Rat 49 g/kg; Dermal
LD50 Rabbit >9400 mg/kg

METHYLENE BISPHENYL ISOCYANATE (101-68-8)
Oral LD50 Rat 9200 mg/kg

CHLOROBENZENE (108-90-7)
Oral LD50 Rat 1110 mg/kg

RTECS Acute Toxicity (selected)
The components of this material have been reviewed, and RTECS publishes the following endpoints:

POLYMETHYLENE POLYPHENYL ISOCYANATE (9016-87-9)
Inhalation: 490 mg/m3/4 hour Inhalation Rat LC50
Oral: 49 gm/kg Oral Rat LD50
Skin: >9400 mg/kg Skin Rabbit LD50

METHYLENE BISPHENYL ISOCYANATE (101-68-8)
Inhalation: 178 mg/m3 Inhalation Rat LC50
Oral: 9200 mg/kg Oral Rat LD50

Acute Toxicity Level
POLYMETHYLENE POLYPHENYL ISOCYANATE (9016-87-9)
Highly toxicity: inhalation.
Toxic: ingestion.

METHYLENE BISPHENYL ISOCYANATE (101-68-8)
Highly toxicity: inhalation.

CHLOROBENZENE (108-90-7)
 Moderately toxicity: inhalation, ingestion.
Toxic: 

Component Carcinogenicity
POLYMETHYLENE POLYPHENYL ISOCYANATE (9016-87-9)
IARC: Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable))

METHYLENE BISPHENYL ISOCYANATE (101-68-8)
IARC: Monograph 71 [1999]; Supplement 7 [1987]; Monograph 19 [1979]
   (Group 3 (not classifiable))

CHLOROBENZENE (108-90-7)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Irritation
See component data.

RTECS Irritation
The components of this material have been reviewed, and RTECS publishes the following endpoints:

POLYMETHYLENE POLYPHENYL ISOCYANATE (9016-87-9)
   100 mg Eyes Rabbit mild

METHYLENE BISPHENYL ISOCYANATE (101-68-8)
   100 mg Eyes Rabbit moderate; 500 mg/24 hour Skin Rabbit

Local Effects
POLYMETHYLENE POLYPHENYL ISOCYANATE (9016-87-9)
   Irritant: inhalation, skin, eye.

METHYLENE BISPHENYL ISOCYANATE (101-68-8)
   Irritant: inhalation, skin, eye.

CHLOROBENZENE (108-90-7)
   Irritant: inhalation, skin, eye.

Target Organs
POLYMETHYLENE POLYPHENYL ISOCYANATE (9016-87-9)
   immune system (sensitizer).

METHYLENE BISPHENYL ISOCYANATE (101-68-8)
   immune system (sensitizer).

CHLOROBENZENE (108-90-7)
   central nervous system.

Medical Conditions Aggravated by Exposure
respiratory system (including asthma and other breathing disorders), skin disorders

RTECS Tumorigenic
The components of this material have been reviewed, and RTECS publishes data for one or more components.

RTECS Mutagenic
The components of this material have been reviewed, and RTECS publishes data for one or more components.

RTECS Reproductive Effects
The components of this material have been reviewed, and RTECS publishes data for one or more components.

Additional Data
May cross react with similar compounds.

* * * Section 12 - ECOLOGICAL INFORMATION * * *

Component Analysis - Aquatic Toxicity

CHLOROBENZENE (108-90-7)

Fish: 96 Hr LC50 Pimephales promelas: 7-8.5 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 4.5 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 6.9-7.9 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 4.1-4.9 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss:
4.1-5.3 mg/L [flow-through]; 96 Hr LC50 Brachydanio rerio: 91 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 36.35-58.19 mg/L [static]

**Algae:**
96 Hr EC50 Pseudokirchneriella subcapitata: 2.55 - 420 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: 12.5 mg/L [static]

**Invertebrate:**
48 Hr EC50 Daphnia magna: 0.59 mg/L

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**Section 13 - DISPOSAL CONSIDERATIONS**

**Disposal Methods**
Dispose in accordance with all applicable regulations.

**Component Waste Numbers**
**CHLOROBENZENE (108-90-7)**
RCRA: waste_number U037
100.0 mg/L regulatory level

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**Section 14 - TRANSPORT INFORMATION**

**US DOT Information:** No Classification assigned.
**TDG Information:** No Classification assigned.

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**Section 15 - REGULATORY INFORMATION**

**U.S. Federal Regulations**
This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

**POLY METHYLENE POLYPHENYL ISOCYANATE (9016-87-9)**
SARA 313: 1.0 % de minimis concentration

**METHYLENE BIS PHENYL ISOCYANATE (101-68-8)**
SARA 313: 1.0 % de minimis concentration
CERCLA: 5000 lb final RQ; 2270 kg final RQ

**CHLOROBENZENE (108-90-7)**
SARA 313: 1.0 % de minimis concentration
CERCLA: 100 lb final RQ; 45.4 kg final RQ

**TSCA 12b:**
Section 4, 1 %

**SARA 311/312**
Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No

**U.S. State Regulations**
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLY METHYLENE POLYPHENYL ISOCYANATE</td>
<td>9016-87-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>METHYLENE BIS PHENYL ISOCYANATE</td>
<td>101-68-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
CHLOROBENZENE | 108-90-7 | Yes | Yes | Yes | Yes | Yes | Yes
Not regulated under California Proposition 65

Canada WHMIS
The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

**METHYLENE BISPHENYL ISOCYANATE (101-68-8)**

0.1 %

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

**Component Analysis - Inventory**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>US</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYMETHYLENE POLYPHENYL ISOCYANATE</td>
<td>9016-87-9</td>
<td>Yes</td>
<td>DSL</td>
</tr>
<tr>
<td>METHYLENE BISPHENYL ISOCYANATE</td>
<td>101-68-8</td>
<td>Yes</td>
<td>DSL</td>
</tr>
<tr>
<td>CHLOROBENZENE</td>
<td>108-90-7</td>
<td>Yes</td>
<td>DSL</td>
</tr>
</tbody>
</table>

***Section 16 - OTHER INFORMATION***

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

**Other Information**

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New MSDS: 6/24/2010