



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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.**

SUBSTANCE: ELMER'S NANO GLUE

TRADE NAMES/SYNONYMS:
 P9420; P9421; P9422; P9423

CREATION DATE: Jun 13 2007
REVISION DATE: Jun 22 2007

2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: POLYMETHYLENE POLYPHENYL ISOCYANATE
CAS NUMBER: 9016-87-9
PERCENTAGE: 30-50

COMPONENT: METHYLENE BISPHENYL ISOCYANATE
CAS NUMBER: 101-68-8
PERCENTAGE: 30-50

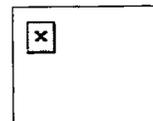
COMPONENT: NON-HAZARDOUS SUBSTANCE
CAS NUMBER: Not assigned.
PERCENTAGE: 10-30

COMPONENT: CHLOROBENZENE
CAS NUMBER: 108-90-7
PERCENTAGE: <0.01

3. HAZARDS IDENTIFICATION

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

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.

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

6. ACCIDENTAL RELEASE MEASURES

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).

7. HANDLING AND STORAGE

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.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

POLYMETHYLENE POLYPHENYL ISOCYANATE:

METHYLENE BISPHENYL ISOCYANATE:

0.02 ppm (0.2 mg/m³) OSHA ceiling

0.005 ppm ACGIH TWA

0.005 ppm (0.05 mg/m³) NIOSH recommended TWA 10 hour(s)

0.020 ppm (0.2 mg/m³) NIOSH recommended ceiling 10 minute(s)

METHYLENE BISPHENYL ISOCYANATE:

0.02 ppm (0.2 mg/m³) OSHA ceiling

0.005 ppm ACGIH TWA

0.005 ppm (0.05 mg/m³) NIOSH recommended TWA 10 hour(s)

0.020 ppm (0.2 mg/m³) 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

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.

11. TOXICOLOGICAL INFORMATION

ELMER'S NANO 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/m³/4 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/m³ 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.

12. ECOLOGICAL INFORMATION

Not available

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

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

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.

15. REGULATORY INFORMATION

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.

16. OTHER INFORMATION

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