



HUN E-451

Material Safety Data Sheet

1. Chemical Product and Company Identification

DESCRIPTION: ELMER'S SPRAY ADHESIVE
PRODUCT TYPE: RUBBER BASED ADHESIVE
APPLICATION: E-451, E-452 (AEROSOLS)

• Manufacturer/Supplier Information

MSDS Prepared by:
Elmer's Products, Inc.
1000 Kingsmill Parkway
Columbus, OH 43229
Emergency Phone Number
Poison Control Center
1-800-228-5635 ext 22
For additional health, safety or regulatory information, call 614-225-7695.
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
67-64-1 *Acetone	10-30
74-98-6 Propane	10-30
75-28-5 Isobutane	10-30
107-83-5 2-Methylpentane	30-50
109-66-0 Pentane	1-5
115-10-6 Dimethyl Ether	1-5

3. Hazards Identification

3.1 Emergency Overview

Appearance White to off white in color
Odor Mint when wet
DANGER!
EXTREMELY FLAMMABLE
May be harmful if inhaled. May cause irritation of nose, throat and lungs.
Can cause central nervous system depression.
Causes skin irritation.
Causes eye irritation.

• HMIS Rating

HEALTH = 2 (moderate)
FLAMMABILITY = 4 (severe)
REACTIVITY = 0 (minimal)
CHRONIC = *

3.2 Potential Health Effects

• Immediate Hazards

INGESTION: Not expected to be harmful under normal conditions of use.

INHALATION: May be harmful if inhaled. Liquid or vapor may cause irritation of nose, throat and lungs.
Can cause central nervous system depression.

SKIN: Causes irritation.

EYES: Causes irritation.

Acetone 67-64-1
Can cause central nervous system depression. Signs and symptoms may include headache, dizziness, nausea, vomiting, unconsciousness and even asphyxiation.

Propane 74-98-6
This material is a simple asphyxiant. Signs and symptoms of overexposure include cyanosis, respiratory distress, headache, dizziness, drowsiness, unconsciousness and asphyxiation. Can cause central nervous system depression.

2-Methylpentane 107-83-5
Can cause central nervous system depression. Signs and symptoms may include headache, dizziness, nausea, vomiting and drowsiness.

Pentane 109-66-0
Can cause central nervous system depression. Signs and symptoms may include headache, dizziness, nausea, vomiting, unconsciousness and even asphyxiation.

Dimethyl Ether 115-10-6
Can cause central nervous system depression. Signs and symptoms may include headache, dizziness, nausea, vomiting, unconsciousness and even asphyxiation.

• Delayed Hazards

Acetone 67-64-1
Ingestion may cause liver damage.
Ingestion may cause kidney damage.
-- 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. Call a physician.

SKIN: Flush with plenty of water. Remove contaminated

EYES: clothing. Call a physician if irritation persists. 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

Autoignition Temperature Not available
Upper/Lower Flammable Limits Not available
Up/Lower Explosive Limits, % by Vol 18.0/1.0
Flash Point -156 deg F (pensky-martens c.c.)
EXTREMELY FLAMMABLE.
DO NOT INCINERATE (BURN) CONTAINER. AVOID HEAT. KEEP CONTAINER BELOW 120 F (50 C). High temperatures may cause bursting. Do not place container on radiator, stove, in direct sunlight or near other heat sources. DO NOT PUNCTURE CONTAINER. Contents under pressure will discharge. AVOID OPEN FLAMES, SPARKS, PILOT LIGHTS. DO NOT SMOKE. Vapor may ignite explosively. Spray mist or vapor evaporating from a deposited film is heavier than air and may settle in low places or travel outward to a source of ignition and flashback. In case of fire, use dry chemical, foam or CO2. Water may be ineffective, but should be used to keep fire-exposed containers cool.

6. Accidental Release Measures

Eliminate all ignition sources. 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: USE WITH ADEQUATE VENTILATION. To avoid breathing vapors or spray mist, open windows and doors or use other means, such as an exhaust fan to ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness, increase fresh air, wear respiratory protection (NIOSH/MSHA TC23C or equivalent), or leave the area.
SKIN: Avoid contact with skin and clothing.
EYES: Avoid contact with eyes.

7.2 Storage

Store in a cool, well-ventilated area.
Store in cool, dry area away from sun, heat, oxidizing materials and alkaline materials.
Keep containers tightly closed.
Do not store at temperatures above 50 C.
Keep away from heat, sparks, flame and other ignition sources.

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

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 if contact is likely. Wear impervious gloves as required to prevent skin contact.

8.3 Exposure Guidelines

Acetone 67-64-1
ACGIH TLV: 500 ppm (1188 mg/m³) TWA; 750 ppm (1782 mg/m³) STEL
OSHA PEL: 1000 ppm (2400 mg/m³) TWA
REMANDED PEL: 750 ppm (1800 mg/m³) TWA; 1000 ppm (2400 mg/m³) STEL
OSHA 1989 PEL remanded, but in effect in some states

Propane 74-98-6
ACGIH TLV: 2500 ppm (4508 mg/m³) TWA
OSHA PEL: 1000 ppm (1800 mg/m³) TWA

Isobutane 75-28-5
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED

2-Methylpentane 107-83-5
ACGIH TLV: HexIso.500ppm(1760mg/m³) TWA;1000ppm(3500mg/m³) STEL
OSHA PEL: REMANDED PEL: HexIso.500ppm(1800mg/m³) TWA;1000ppm(3600mg/m³) STEL
OSHA 1989 PEL remanded, but in effect in some states

Pentane 109-66-0
ACGIH TLV: 600 ppm (1770 mg/m³) TWA
OSHA PEL: 1000 ppm (2950 mg/m³) TWA
REMANDED PEL: 600 ppm (1800 mg/m³) TWA; 750 ppm (2250 mg/m³) STEL
OSHA 1989 PEL remanded, but in effect in some states

Dimethyl Ether 115-10-6
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED

9. Physical and Chemical Properties

Percent Volatiles	82.5
pH @ 25 C	Not applicable
Specific Gravity	0.69
Appearance	White to off white in color

Autoignition Temperature	Not available
Boiling Point	-44 - 150 deg F
Vapor Density (Air=1)	> 1
Vapor Pressure, mm Hg @ 20 C	Not determined
Evaporation Rate (Butyl Acetate=1)	>1
Upper/Lower Flammable Limits	Not available
Up/Lower Explosive Limits, % by Vol	18.0/1.0
Flash Point	-156 deg F (pensky-martens c.c.)
Freezing Point	Not available
Odor	Mint when wet
Odor Threshold, ppm	Not available
Solubility in Water	Negligible
Coefficient of Water/Oil Distrib.	Not applicable

10. Stability and Reactivity

Normally stable as defined in NFPA 704-12(4-3.1).

• Incompatibilities:

Strong oxidizers.

• Decomposition products may include:

Oxides of carbon.

• Hazardous polymerization:

Will not occur.

• Other Hazards:

None known to company.

11. Toxicological Information

See Section 3 Hazards Identification information.

Acetone 67-64-1

LC50: Not available

LD50: oral-rat=5800 mg/kg (RTECS); skin-rabbit=20 g/kg (RTECS)

Propane 74-98-6

LC50: Not available

LD50: Not available

Isobutane 75-28-5

LC50: Not available

LD50: Not available

2-Methylpentane 107-83-5

LC50: Not available

LD50: Not available

Pentane 109-66-0

LC50: Not available

LD50: Not available

Dimethyl Ether 115-10-6
LC50: Not available
LD50: Not available

12. Ecological Information

Not determined.

13. Disposal Considerations

Dispose of according to local, state/provincial, and federal requirements.
Empty container: May contain explosive vapors. DO NOT cut, puncture or weld on or nearby. Incineration will cause container to burst violently.

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.
ORM-D Consumer Commodity.

14.2 Canadian Transportation of Dangerous Goods (TDG)

Not determined.

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**

Fire hazard
Sudden release of pressure (explosion) 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.
None required per SARA TITLE III SECTION 313.

- **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 2B
CLASS B, DIV 2

- **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.
None required.

16. Other Information

CL (Cautionary Labeling): Products bearing the CL (Cautionary

Labeling) 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.
