



# MATERIAL SAFETY DATA SHEET

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## SECTION 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 MOUNTING SPRAY ADHESIVE**

**TRADE NAMES/SYNONYMS:**  
E405; E454

**PRODUCT USE:** adhesives

**CREATION DATE:** May 01 2002  
**REVISION DATE:** Jan 15 2008

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## SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

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**COMPONENT:** 2-METHYLPENTANE  
**CAS NUMBER:** 107-83-5  
**PERCENTAGE:** 15-40

**COMPONENT:** ACETONE  
**CAS NUMBER:** 67-64-1  
**PERCENTAGE:** 10-30

**COMPONENT:** DIMETHYL ETHER  
**CAS NUMBER:** 115-10-6  
**PERCENTAGE:** 10-30

**COMPONENT:** ISOBUTANE  
**CAS NUMBER:** 75-28-5  
**PERCENTAGE:** 5-10

**COMPONENT:** PENTANE  
**CAS NUMBER:** 109-66-0  
**PERCENTAGE:** 1-5

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## SECTION 3 HAZARDS IDENTIFICATION

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

### EMERGENCY OVERVIEW:

**COLOR:** white

**PHYSICAL FORM:** liquid

**ODOR:** minty odor

**MAJOR HEALTH HAZARDS:** respiratory tract irritation, skin irritation, eye irritation, central nervous system depression

**PHYSICAL HAZARDS:** Flash back hazard. Containers may rupture or explode if exposed to heat.

### POTENTIAL HEALTH EFFECTS:

#### INHALATION:

**SHORT TERM EXPOSURE:** irritation, changes in body temperature, nausea, vomiting, stomach pain, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, loss of coordination, blurred vision, kidney damage, liver damage, convulsions, unconsciousness, coma

**LONG TERM EXPOSURE:** irritation, changes in body temperature, headache, drowsiness, dizziness, blood disorders

#### SKIN CONTACT:

**SHORT TERM EXPOSURE:** irritation

**LONG TERM EXPOSURE:** irritation, tingling sensation

#### EYE CONTACT:

**SHORT TERM EXPOSURE:** irritation (possibly severe), blurred vision, tearing

**LONG TERM EXPOSURE:** irritation

#### INGESTION:

**SHORT TERM EXPOSURE:** ingestion of harmful amounts is unlikely

**LONG TERM EXPOSURE:** ingestion of harmful amounts is unlikely

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## SECTION 4 FIRST AID MEASURES

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**INHALATION:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

**SKIN CONTACT:** Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

**EYE CONTACT:** Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

**INGESTION:** If a large amount is swallowed, get medical attention.

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## SECTION 5 FIRE FIGHTING MEASURES

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**FIRE AND EXPLOSION HAZARDS:** Severe fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Containers may rupture or explode if exposed to heat.

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

**FIRE FIGHTING:** Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

**FLASH POINT:** -155 F (-104 C) (PMCC)  
**LOWER FLAMMABLE LIMIT:** 1.0%  
**UPPER FLAMMABLE LIMIT:** 18.0%

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## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

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### **OCCUPATIONAL RELEASE:**

Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Stop leak if possible without personal risk. Small spills of the liquid component: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Spills with a large number of canisters: Reduce vapors with water spray. Remove sources of ignition. 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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## **SECTION 7 HANDLING AND STORAGE**

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**STORAGE:** Store and handle in accordance with all current regulations and standards. Store below 49 C. Keep away from heat, sparks and flame. Avoid direct sunlight. See original container for storage recommendations. Keep separated from incompatible substances.

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## **SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION**

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### **EXPOSURE LIMITS:**

#### **2-METHYLPENTANE:**

No occupational exposure limits established.

#### **ACETONE:**

1000 ppm (2400 mg/m<sup>3</sup>) OSHA TWA  
750 ppm (1780 mg/m<sup>3</sup>) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)  
1000 ppm (2375 mg/m<sup>3</sup>) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)  
500 ppm ACGIH TWA  
750 ppm ACGIH STEL  
250 ppm (590 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s)

#### **DIMETHYL ETHER:**

1000 ppm AIHA recommended TWA

#### **ISOBUTANE:**

800 ppm (1900 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s)

#### **LIQUIFIED PETROLEUM GAS (LPG):**

1000 ppm (1800 mg/m<sup>3</sup>) OSHA TWA  
1000 ppm ACGIH TWA  
1000 ppm (1800 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s)

#### **PENTANE:**

1000 ppm (2950 mg/m<sup>3</sup>) OSHA TWA  
600 ppm (1770 mg/m<sup>3</sup>) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)  
750 ppm (2210 mg/m<sup>3</sup>) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)  
600 ppm ACGIH TWA  
120 ppm (350 mg/m<sup>3</sup>) NIOSH recommended TWA 10 hour(s)

610 ppm (1800 mg/m<sup>3</sup>) NIOSH recommended ceiling 15 minute(s)

**VENTILATION:** Provide local exhaust 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.

**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.

**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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## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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**PHYSICAL STATE:** aerosol

**COLOR:** white

**PHYSICAL FORM:** liquid

**ODOR:** minty odor

**BOILING POINT:** -44 to 150 F (-42 to 65.6 C)

**FREEZING POINT:** Not available

**VAPOR PRESSURE:** Not available

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

**SPECIFIC GRAVITY (water=1):** 0.7493

**WATER SOLUBILITY:** almost insoluble

**PH:** Not applicable

**VOLATILITY:** Not applicable

**ODOR THRESHOLD:** Not available

**EVAPORATION RATE:** faster than butyl acetate

**VOC:** 64.7%

**VOC LESS WATER AND EXEMPT SOLVENTS:** 529 g/L

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

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## SECTION 10 STABILITY AND REACTIVITY

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**REACTIVITY:** Stable at normal temperatures and pressure.

**CONDITIONS TO AVOID:** Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Containers may rupture or explode if exposed to heat.

**INCOMPATIBILITIES:** acids, amines, bases, oxidizing materials, reducing agents

**HAZARDOUS DECOMPOSITION:**

Thermal decomposition products: oxides of carbon, oxides of sulfur, hydrocarbons

**POLYMERIZATION:** Will not polymerize.

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## SECTION 11 TOXICOLOGICAL INFORMATION

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### **2-METHYLPENTANE:**

#### **LOCAL EFFECTS:**

Irritant: inhalation, skin, eye

**TARGET ORGANS:** central nervous system

**ADDITIONAL DATA:** Stimulants such as epinephrine may induce ventricular fibrillation.

### **ACETONE:**

#### **IRRITATION DATA:**

500 ppm eyes-human; 395 mg open skin-rabbit mild; 500 mg/24 hour(s) skin-rabbit mild; 20 mg eyes-rabbit severe; 20 mg/24 hour(s) eyes-rabbit moderate

#### **TOXICITY DATA:**

50100 mg/m<sup>3</sup>/8 hour(s) inhalation-rat LC50; >9400 ul/kg skin-guinea pig LD50; 5800 mg/kg oral-rat LD50

**CARCINOGEN STATUS:** ACGIH: A4 -Not Classifiable as a Human Carcinogen

#### **LOCAL EFFECTS:**

Irritant: inhalation, skin, eye

#### **ACUTE TOXICITY LEVEL:**

Slightly Toxic: inhalation, ingestion

**TARGET ORGANS:** central nervous system

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** respiratory disorders, skin disorders and allergies

**MUTAGENIC DATA:** Available.

**REPRODUCTIVE EFFECTS DATA:** Available.

**ADDITIONAL DATA:** Alcohol may enhance the toxic effects.

### **DIMETHYL ETHER:**

#### **TOXICITY DATA:**

308 gm/m<sup>3</sup> inhalation-rat LC50

#### **LOCAL EFFECTS:**

Irritant: inhalation, skin, eye

#### **ACUTE TOXICITY LEVEL:**

Slightly Toxic: inhalation

**TARGET ORGANS:** central nervous system

**REPRODUCTIVE EFFECTS DATA:** Available.

### **ISOBUTANE:**

#### **TOXICITY DATA:**

57 pph/15 minute(s) inhalation-rat LC50

#### **LOCAL EFFECTS:**

Irritant: inhalation

#### **ACUTE TOXICITY LEVEL:**

Relatively Non-toxic: inhalation

**TARGET ORGANS:** central nervous system

**ADDITIONAL DATA:** Stimulants such as epinephrine may induce ventricular fibrillation.

### **PENTANE:**

#### **TOXICITY DATA:**

364 gm/m<sup>3</sup>/4 hour(s) inhalation-rat LC50

#### **LOCAL EFFECTS:**

Irritant: inhalation, skin

#### **ACUTE TOXICITY LEVEL:**

Relatively Non-toxic: inhalation

**TARGET ORGANS:** central nervous system

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** respiratory disorders, skin disorders and allergies  
**ADDITIONAL DATA:** Alcohol may enhance the toxic effects.

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## **SECTION 12 ECOLOGICAL INFORMATION**

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Not available

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## **SECTION 13 DISPOSAL CONSIDERATIONS**

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Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.  
Hazardous Waste Number(s): D001.

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## **SECTION 14 TRANSPORT INFORMATION**

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### **U.S. DOT 49 CFR 172.101:**

**PROPER SHIPPING NAME:** Consumer commodity

**HAZARD CLASS OR DIVISION:** ORM-D

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

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## **SECTION 15 REGULATORY INFORMATION**

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### **U.S. REGULATIONS:**

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

**ACETONE:** 5000 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: No

FIRE: Yes

REACTIVE: No

SUDDEN RELEASE: Yes

**SARA TITLE III SECTION 313 (40 CFR 372.65):** Not regulated.

**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):** Listed on inventory.

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

**ACETONE**

**CAS NUMBER:** 67-64-1

**SECTION 4**

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

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**SECTION 16 OTHER INFORMATION**

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**MSDS SUMMARY OF CHANGES**

SECTION 11 TOXICOLOGICAL INFORMATION

SECTION 15 REGULATORY INFORMATION

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