PERMATEX INDUSTRIAL CORPORATION

07/02/97

ROCKY HILL, CONNECTICUT 06067 TELEPHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET

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Permatex(R) Battery Protector and Sealer 80370

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Permatex(R) Battery Protector and Sealer

Item No.:

80370

Part No.:

SA-9

Product Type:

Aerosol Sealant and Protectant

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	*
TOLUENE* Grease mixture Residual oils (petroleum), hydrotreated BUTANE	108-88-3 Proprietary 64742-57-0 106-97-8	30-40 10-20 10-20 5-20
ISOBUTANE PROPANE 2-BUTOXYETHANOL* ETHANE, 1,1,1-TRICHLORO-* Mineral oil	75-28-5 74-98-6 111-76-2 71-55-6 64742-52-5	5-20 5-20 1-10 1-10 1-10

^{*} This component is listed as a SARA Section 313 Toxic Chemical.

Ingredients which have exposure limits

Exposure Limits (TWA) Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
TOLUENE	50 ppm skin	100 ppm	None
BUTANE	188 mg/M3 skin 800 ppm TWA	375mg/M3 800 ppm TWA	None
PROPANE	1900mg/M3 Asphyxiant	1900mg/M3 1000 ppm	None
2-BUTOXYETHANOL	25 ppm TWA skin	1800 mg/m3 50 ppm TWA skin	None
ETHANE, 1,1,1-TRICHLORO-	121mg/m3 skin 350 ppm TWA		None
Mineral oil	1910 mg/m3 5 mg/m3 mist	1900 mg/m3 5 mg/m3 mist	5 mg/m3 mist
Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)	
TOLUENE	None	150 ppm	
ETHANE, 1,1,1-TRICHLORO-	450 ppm 2460 mg/m3	560mg/M3 450 ppm 2450 mg/m3	

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2. COMPOSITION, INFORMATION ON INGREDIENTS

(continued)

Mineral oil

10 mg/m3 mist None

3. HAZARDS IDENTIFICATION

Toxicity:

Skin and eye irritant. May irritate respiratory tract. Aspiration hazard if swallowed. May cause dizziness or narcosis in high vapor concentrations

Will cause defatting of skin.

Long term exposure to high concentrations of vapor may cause lung, liver, or kidney damage. The solvents listed have been reported to affect the

central nervous system.

May cause cardiac abnormalities.

Overexposure to toluene may cause nasal and brain damage. 2-Butoxyethanol may cause corneal injury blood abnormalities, may be absorbed through the skin with toxic effects, and may cause damage to

spleen and testes.

Primary Routes of Entry:

Signs and symptoms

of Exposure:

Skin absorption, ingestion, inhalation

Inhalation: Difficulty in breathing. Skin: Redness.

Ingestion: Vomiting.

Existing Conditions

Aggravated by Exposure:

Heart disease, respiratory disorders.

Toluene may also aggravate central nervous system

diseases and alcoholism.

TOLUENE AC4 CAR CNS DEV IRR NO NO NO
Grease mixture No Data NO NO NO NO Residual oils (petroleum),
hydrotreated No Data NO NO NO
BUTANE CAR CNS IRR NO NO NO
ISOBUTANE CAR CNS LUN NO NO NO
PROPANE CAR CNS IRR NO NO NO
2-BUTOXYETHANOL BLO CNS IRR NO NO NO
ETHANE, 1,1,1-TRICHLORO- AC4 CAR CNS IRR LIV NO N/A NO
Mineral oil IRR NO NO NO

Abbreviations

N/A Not Applicable

BLO Blood

CNS Central nervous system

AC4 ACGIH-Unclassifiable as human carc.

CAR Cardiac

DEV Developmental

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3. HAZARDS IDENTIFICATION

(continued)

IRR Irritant LUN Lung

LIV Liver

4. FIRST AID MEASURES

Ingestion:

Do not induce vomiting. Keep individual calm.

Inhalation:

Obtain medical attention. Gastric lavage. Remove to fresh air. If symptoms persist, obtain

medical attention. Give oxygen.

Skin Contact:

Wash with soap and water.

Eye Contact:

Flush with water for at least 15 minutes. Obtain

medical attention.

Never administer adrenalin following overexposure.

5. FIRE FIGHTING MEASURES

Flash Point:

-142°F

Method: Tag Closed Cup

Recommended

Extinguishing Agents:

Carbon dioxide, water fog, dry chemical

Hazardous Products formed

by Fire or Thermal Decomp Carbon dioxide, water, halogen acids, phosgene.

Unusual Fire or

Explosion Hazards:

Heated cans may rupture.

Explosive Limits:

(% by volume in air)Lower 1.8

(% by volume in air) Upper 9.5%

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case

of spill or leak:

Remove ignition sources. Maintain adequate

ventilation. Soak up liquid in an inert absorbent and store in a closed container until disposal.

7. HANDLING AND STORAGE

Safe Storage:

Store away from heat, spark or open flame.

Store below 120°F.

(Contact Loctite Customer

Handling:

Service 1-800-243-4874 for shelf Life information) Avoid prolonged breathing of vapor. Keep away

from eyes. Avoid prolonged skin contact. Keep away from heat, sparks, or open flame. Do not smoke while using. Wash hands after use. When spraying more than one half can or more than

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7. HANDLING AND STORAGE

(continued)

one can consecutively, use NIOSH/MSA approved respirator.

EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes:

Safety glasses or goggles.

Skin:

Rubber or plastic gloves. Long sleeves and long

pants.

Ventilation:

Provide adequate local ventilation to maintain

vapor concentration below TLV.

Use self contained breathing apparatus when vapor

concentration exceeds TLV.

See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Purple liquid

Odor:

Solvent

Boiling Point: pH:

-40°F to 232°F Does not apply

Solubility in Water:

Negligible

Specific Gravity

8.0

Volatile Organic Compound

(EPA Method 24) Vapor Pressure:

61.3%; 490 grams per liter (calculated)

57 psig at 70°F

Vapor Density:

4.0

Evaporation Rate

(Ether = 1)

Faster than butyl acetate

10. STABILITY AND REACTIVITY

Stability:

Stable

Hazardous Polymerization:

Will not occur

Incompatibility:

Strong oxidizers; active metals, strong alkalies,

reactive metals, zinc, sodium, potassium. Not available

Conditions to Avoid:

Hazardous Decomposition

Products (non-thermal):

None

11. TOXICOLOGICAL INFORMATION

See Section 3.

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12. ECOLOGICAL INFORMATION

No data available

DISPOSAL CONSIDERATIONS

Recommended methods of

disposal:

Do not puncture or incinerate cans. Give cans to

licensed disposal service equipped for safe

disposal of aerosol containers.

EPA Hazardous Waste

Number

D001/F002 - Hazardous waste per 40CFR 261.21 and

261.31/1,1,1-Trichloroethane

TRANSPORTATION INFORMATION 14.

DOT (49 CFR 172)

Domestic Ground Transport

Proper Shipping Name:

Consumer Commodity

Hazard Class or

Division: Identification Number:

ORM-D None

Marine Pollutant:

None

ATAI

Proper Shipping Name:

Aerosols, flammable, n.o.s. containing substances in Division 6.1, Packing Group III

Class or Division:

Division 2.1 Subsidiary Risk 6.1

UN or ID Number: UN 1950

15. REGULATORY INFORMATION

CA Proposition 65:

WARNING: This product contains a chemcial known to

the State of California to cause birth defects or other reproductive harm.

16. OTHER INFORMATION

Estimated NFPA(R) Code:

Health Hazard: 2 Fire Hazard: 4 Reactivity Hazard: a

Specific Hazard: Does not apply

Estimated HMIS(R) Code:

Health Hazard: 2 Flammability Hazard: 4 Reactivity Hazards: 0

Personal Protection: See Section 8.

NFPA is a registered trademark of the National Fire Protection Assn.

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16. OTHER INFORMATION

(continued)

HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Title:

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Research Chemist, Health and Safety

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(24hr.) Phone:

Revision: 0005

Revision Date:

(860) 571-5100 April 15, 1997