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

07/02/97

MATERIAL SAFETY DATA SHEET

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*	108-88-3	30-40
Grease mixture	Proprietary	10-20
Residual oils (petroleum), hydrotreated	64742-57-0	10-20
BUTANE	106-97-8	5-20
ISOBUTANE	75-28-5	5-20
PROPANE	74-98-6	5-20
2-BUTOXYETHANOL*	111-76-2	1-10
ETHANE, 1,1,1-TRICHLORO-*	71-55-6	1-10
Mineral oil	64742-52-5	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 188 mg/M3 skin	100 ppm 375mg/M3	None
BUTANE	800 ppm TWA 1900mg/M3	800 ppm TWA 1900mg/M3	None
PROPANE	Asphyxiant	1000 ppm 1800 mg/m3	None
2-BUTOXYETHANOL	25 ppm TWA skin 121mg/m3 skin	50 ppm TWA skin 120mg/m3 skin	None
ETHANE, 1,1,1-TRICHLORO-	350 ppm TWA 1910 mg/m3	350 ppm TWA 1900 mg/m3	None
Mineral oil	5 mg/m3 mist	5 mg/m3 mist	5 mg/m3 mist

Exposure Limits (STEL) Ingredients	ACGIH (TLV)	OSHA (PEL)
TOLUENE	None	150 ppm 560mg/M3
ETHANE, 1,1,1-TRICHLORO-	450 ppm 2460 mg/m3	450 ppm 2450 mg/m3

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: Skin absorption, ingestion, inhalation

Signs and symptoms of Exposure: 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.

Ingredients	Literature Referenced Target Organ and Other Health Effects	Carcinogen NTP	IARC	OSHA
TOLUENE	AC4 CAR CNS DEV IRR	NO	NO	NO
Grease mixture	No Data	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	AC4 ACGIH-Unclassifiable as human carc.
BLO Blood	CAR Cardiac
CNS Central nervous system	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. Obtain medical attention. Gastric lavage.
Inhalation:	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.

8. 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:	-40°F to 232°F
pH:	Does not apply
Solubility in Water:	Negligible
Specific Gravity	0.8
Volatile Organic Compound (EPA Method 24)	61.3% ; 490 grams per liter (calculated)
Vapor Pressure:	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, stromg alkalies, reactive metals, zinc, sodium, potassium.
Conditions to Avoid:	Not available
Hazardous Decomposition Products (non-thermal):	None

11. TOXICOLOGICAL INFORMATION

See Section 3.

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12. ECOLOGICAL INFORMATION

No data available

13. 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

14. TRANSPORTATION INFORMATION

DOT (49 CFR 172)
Domestic Ground Transport
- Proper Shipping Name: Consumer Commodity
- Hazard Class or Division: ORM-D
- Identification Number: None
- Marine Pollutant: None

IATA
- 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: 0
- 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.

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