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

MATERIAL SAFETY DATA SHEET

Page 01 of 05

Permatex(R) Battery Cleaner 80369

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 1.

Product Name:

Permatex(R) Battery Cleaner

Item No.:

80369

Part No.:

SA-8

Product Type:

Aerosol cleaner

COMPOSITION, INFORMATION ON INGREDIENTS 2

| Ingredients | CAS No. | ે |
|--------------------|-----------|-------|
| Water | 7732-18-5 | 70-80 |
| ISOBUTANE | 75-28-5 | 10-20 |
| Sodium bicarbonate | 144-55-8 | 1-10 |
| Triethanolamine | 102-71-6 | 1-10 |

Ingredients which have exposure limits

| Exposure Limits Ingredients | (TWA) | ACGIH (TLV) | OSHA (PEL) | OTHER |
|-----------------------------|--------|----------------|---------------|-------|
| Triethanolamine | | 5 mg/m3 | None | None |
| Exposure Limits Ingredients | (STEL) | ACGIH (TLV) | OSHA (PEL) | |

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.

Note: Eye irritation may be severe.

Deliberately concentrating and inhaling the vapors of the contents may be harmful or fatal. Sodium bicarbonate has been shown to cause developmental abnormalities in experimental animals when introduced into the peritoneum and changes in lungs/thorax/respiration, increased urine volume, andchanges in nutrition and gross metabolism in experimental animals upon ingestion. It is our best technical judgement that with proper protection normal use of this product poses LOCTITE CORPORATION 09/11/96

> ROCKY HILL, CONNECTICUT 06067 EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET Page 02 of 05

Product Name:

Permatex(R) Battery Cleaner

Item No.:

80369

HAZARDS IDENTIFICATION

(continued)

no such chronic hazards.

Primary Routes of Entry: Inhalation, ingestion, skin.

Signs and symptoms of Exposure:

Inhalation: Difficulty in breathing.

Skin: Redness.

Ingestion: Vomiting.

Existing Conditions

Aggravated by Exposure: Heart disease, respiratory disorders.

Literature Referenced Carcinogen Ingredients Target Organ and Other Health Effects NTP IARC OSHA Water No Data NO NO NO ISOBUTANE CAR CNS LUN NO NO NO Sodium bicarbonate IRR NO NO NO Triethanolamine ALG IRR NO NO NO -----

Abbreviations

ALG Allergen CAR Cardiac CNS Central nervous system IRR Irritant

LUN Lung

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Keep individual calm.

Obtain medical attention.

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.

5. FIRE FIGHTING MEASURES

Flash Point:

-160°F (Propellant) Method: Tag Closed Cup

Recommended

Hazardous Products formed

Extinguishing Agents: Water fog, dry chemical, carbon dioxide.

by Fire or Thermal Decomp Irritating organic vapors; carbon dioxide;

sodium carbonate; oxides of nitrogen

Unusual Fire or

Explosion Hazards: Heated cans may rupture.

Explosive Limits:

(% by volume in air) Lower 1.9%

LOCTITE CORPORATION 09/11/96

> ROCKY HILL, CONNECTICUT 06067 EMERGENCY PHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET Page 03 of 05

Product Name:

Permatex(R) Battery Cleaner

Item No.:

80369

FIRE FIGHTING MEASURES

(continued)

(% by volume in air) Upper 8.5%

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.

Handling:

(Contact Loctite Customer 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 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 NIOSH/MSHA approved respirator if vapor

concentration exceeds TLV.

See Section 2 for Exposure Limits.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White Foam Odor: Solvent

Boiling Point: -11.7°F to 212°F

More than 7 pH: Solubility in Water: Soluble

Specific Gravity 0.9

Volatile Organic Compound

(EPA Method 24) 14.2 %; 128 grams per liter (calculated)

31 psig at 70°F Vapor Pressure:

Vapor Density: 4.0

Evaporation Rate

(Ether = 1)Slower than butyl acetate LOCTITE CORPORATION

09/11/96

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

MATERIAL SAFETY DATA SHEET

Page 04 of 05

Product Name:

Permatex(R) Battery Cleaner

Item No.:

10. STABILITY AND REACTIVITY

Stability:

Stable

80369

Hazardous Polymerization: Will not occur

Incompatibility:

Strong oxidizers, strong mineral acids, reducers, strong alkalies, zinc, reactive metals, ketones,

organic anhydrides and halides, aldehydes,

acrylates.

Hazardous Decomposition

Products (non-thermal):

None

11. TOXICOLOGICAL INFORMATION

See Section 3.

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 - Hazardous waste per 40CFR 261.21

14. TRANSPORT 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:

Consumer Commodity (Not more than 820 ml);

Aerosols, non-flammable (More than 820 ml)

Class or Division:

Class 9 (Not more than 820 ml); Division 2.2 (More than 820 ml)

UN or ID Number:

ID 8000 (Not more than 820 ml);

UN 1950 (More than 820 ml)

15. REGULATORY INFORMATION

CA Proposition 65:

Warning: This product contains a chemical known to

the State of California to cause cancer.

LOCTITE CORPORATION

09/11/96

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

MATERIAL SAFETY DATA SHEET

Page 05 of 05

Product Name:

Permatex(R) Battery Cleaner

Item No.: 80369

16. OTHER INFORMATION

Estimated NFPA(R) Code:

Health Hazard: 2 Fire Hazard: 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. HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By:

Stephen Repetto

Title: Research Chemist, Health and Safety

Company: Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067

(24hr.) Phone: (860) 571-5100

Revision Date: January 22, 1996 Revision: 0006



Toll Free: 87 PERMATEX (877-376-2839)

10 Columbus Blvd., Hartford, Connecticut 06106

6875 Parkland Boulevard, Solon Ohio 44139

Technical Data Sheet

Permatex[®] Battery Cleaner

AAM Revised 10/02

PRODUCT DESCRIPTION

S.I.N.: 834-300 Permatex® Battery Cleaner is an aerosol product for cleaning all types of storage batteries and attachments in vehicles and emergency power supply systems. The product penetrates and removes corrosion, dirt and grime instantly.

PRODUCT BENEFITS

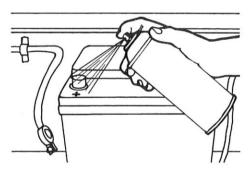
- Removes power-robbing corrosion
- Fast acting
- Penetrates no disassembly required

TYPICAL APPLICATIONS

- **Batteries**
- Cables
- Terminal connections

DIRECTIONS FOR USE

- Provide adequate ventilation.
- Shake can with ball agitator for one minute. For best results, aerosol can should be at room temperature before spraying.
- Holding can 8 to 10 inches from the surface to be cleaned, press the nozzle and discharge the product onto the corroded area. The product discharges as a foam.



- Let stand for approximately five minutes
- Flush with water using a gentle flow to avoid splashing the dissolved corrosion.
- 6. Wipe battery clean with rag, shop cloth or paper towel.
- For best results, seal terminals with Permatex® Battery Protector & Sealer.

For Cleanup

Clean hands with Permatex® brand hand cleaners.

PROPERTIES OF MATERIAL

Chemical Type Appearance Odor Flash Point

Typical Value Alkaline cleaner White foam Amine Aerosol, contents under pressure, consult MSDS

NFPA 704 Flammability Rating

4 (Highly flammable)

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected for use with chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

ORDERING INFORMATION

| Part Number | Container Size | |
|--------------|-------------------|--|
| 80369 (SA-8) | 6 oz. aerosol can | |

STORAGE

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8 to 28 C (46 to 82 F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range.

NOTE

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. Permatex, Inc. specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Permatex, Inc. products and disclaims any liability for consequential or incidental damages of any kind, including lost profits. This product may be covered by one or more United States or foreign patents or patent applications.