SAFETY DATA SHEET

Revision Date 27-Mar-2017

1. IDENTIFICATION

Product identifier
Product Name SA-8 BATTERY CLEANER 5 OZ AE

Other means of identification
Product Code 80369
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use Battery, Cleaner
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address May Also Be Distributed by:
ITW Permatex ITW Permatex Canada
6875 Parkland Blvd. 35 Brownridge Road, Unit 1
Solon, OH 44139 USA Halton Hills, ON Canada L7G 0C6
Telephone: (800) 924-6994

24 Hour Emergency Phone Number Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Flammable aerosols</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gases under pressure</td>
<td>Liquefied gas</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Warning

Flammable aerosol
Contains gas under pressure; may explode if heated

Page 1 / 8
**Appearance** Orange  
**Physical state** Liquid  
**Odor** Mild

### Precautionary Statements - Prevention
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
- Do not spray on an open flame or other ignition source  
- Pressurized container: Do not pierce or burn, even after use

### Precautionary Statements - Storage
- Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

### Precautionary Statements - Disposal
- Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)
- Not applicable

### Other Information
- The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w benzene (EINECS No 200-753-7).

Unknown acute toxicity  
17 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTANE</td>
<td>106-97-8</td>
<td>&lt;10</td>
<td>*</td>
</tr>
<tr>
<td>PROPANE</td>
<td>74-98-6</td>
<td>&lt;3</td>
<td>*</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL</td>
<td>111-76-2</td>
<td>&lt;3</td>
<td>*</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

#### Description of first aid measures

**General advice**
Get medical advice/attention if you feel unwell.

**Eye contact**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin contact**
IF ON SKIN: Wash skin with soap and water. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.

**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

**Ingestion**
IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

**Self-protection of the first aider**
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

#### Most important symptoms and effects, both acute and delayed

**Symptoms**
See section 2 for more information.

**Indication of any immediate medical attention and special treatment needed**
5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media
None.

Specific hazards arising from the chemical
Flammable. Contains gas under pressure; may explode if heated.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Remove all sources of ignition. Do not puncture or incinerate cans.

Environmental precautions

Environmental precautions
Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological Information.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Contents under pressure. Do not puncture or incinerate cans.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Do not expose to temperatures exceeding 50 °C/122 °F. Keep from freezing.

Incompatible materials
Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Note to physicians
Treat symptomatically.
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTANE 106-97-8</td>
<td>STEL: 1000 ppm</td>
<td>(vacated) TWA: 800 ppm</td>
<td>TWA: 800 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 1900 mg/m³</td>
<td>TWA: 1900 mg/m³</td>
</tr>
<tr>
<td>PROPANE 74-98-6</td>
<td></td>
<td>TWA: 1000 ppm</td>
<td>IDLH: 2100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 1800 mg/m³</td>
<td>TWA: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 1000 ppm</td>
<td>TWA: 1800 mg/m³</td>
</tr>
<tr>
<td></td>
<td>:</td>
<td>(vacated) TWA: 1800 mg/m³</td>
<td></td>
</tr>
<tr>
<td>2-BUTOXYETHANOL 111-76-2</td>
<td>TWA: 20 ppm</td>
<td>TWA: 50 ppm</td>
<td>IDLH: 700 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 240 mg/m³</td>
<td>TWA: 5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 25 ppm</td>
<td>TWA: 24 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 120 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) S*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S*</td>
<td></td>
</tr>
</tbody>
</table>

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information
Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection
Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Orange</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 93 °C / &gt;200 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>23.23 psig @ 21°C</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.031</td>
<td>Air = 1</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks. Temperatures >50 °C / 122 °F.

Incompatible materials
Strong oxidizing agents

Hazardous Decomposition Products
Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
May cause irritation of respiratory tract.

Eye contact
Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact
May cause skin irritation and/or dermatitis.

Ingestion
Ingestion may cause irritation to mucous membranes.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTANE 106-97-8</td>
<td>-</td>
<td>-</td>
<td>= 658 g/m³ (Rat) 4 h</td>
</tr>
<tr>
<td>PROPANE 74-98-6</td>
<td>-</td>
<td>-</td>
<td>= 658 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL 111-76-2</td>
<td>= 470 mg/kg (Rat)</td>
<td>= 99 mg/kg (Rabbit)</td>
<td>= 450 ppm (Rat) 4 h</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.
80369 - SA-8 BATTERY CLEANER 5 OZ AE

Chemical Name | ACGIH | IARC | NTP | OSHA
--- | --- | --- | --- | ---
2-BUTOXYETHANOL 111-76-2 | A3 | Group 3 | - | -

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

Chronic toxicity
May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Target Organ Effects
Blood, Central nervous system, Eyes, Hematopoietic System, kidney, Liver, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .

| ATEmix (oral) | 9752 mg/kg |
| ATEmix (dermal) | 22825 mg/kg |
| ATEmix (inhalation-gas) | 65332200 mg/l |
| ATEmix (inhalation-dust/mist) | 31.1 mg/l |
| ATEmix (inhalation-vapor) | 9338 mg/l |

**12. ECOLOGICAL INFORMATION**

Ecotoxicity
21 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTANE 106-97-8</td>
<td>2.89</td>
</tr>
<tr>
<td>PROPANE 74-98-6</td>
<td>2.3</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL 111-76-2</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

**13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container.

US EPA Waste Number
D001

**14. TRANSPORT INFORMATION**

DOT
UN/ID no: 1950
Proper shipping name: Aerosols, Limited Quantity (LQ)
Hazard Class: 2.1
Emergency Response Guide Number: 126

IATA
UN/ID no: ID 8000
Proper shipping name: Consumer commodity
Hazard Class: 9
ERG Code: 9L

IMDG
UN/ID no: 1950
Proper shipping name: Aerosols, Limited Quantity (LQ)
Hazard Class: 2.1
EmS-No: F-D, S-U

15. REGULATORY INFORMATION

International Inventories
TSCA: Complies
DSL/NDSL: Complies
EINECS/ELINCS: Complies
ENCS: Complies
IECS: Complies
KECL: Complies
PICCS: Complies
AICS: Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECS - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-BUTOXYETHANOL - 111-76-2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories
- Acute health hazard: Yes
- Chronic Health Hazard: No
- Fire hazard: Yes
- Sudden release of pressure hazard: No
- Reactive Hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level
pertaining to releases of this material

**US State Regulations**

**California Proposition 65**
WARNING! This product contains a chemical known in the State of California to cause cancer

**U.S. State Right-to-Know Regulations**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER 7732-18-5</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL 111-76-2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PROPANE 74-98-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ISOBUTANE 75-28-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**U.S. EPA Label Information**

EPA Pesticide Registration Number  Not applicable

**WHMIS Hazard Class**

B5 - Flammable aerosol, A  Compressed gases

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**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

**Revision Date**  27-Mar-2017

**Disclaimer**
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet