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
ITW Permatex
6875 Parkland Blvd.
Solon, OH 44139 USA

May Also Be Distributed by:
ITW Permatex Canada
35 Brownridge Road, Unit 1
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

---

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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>Substance(s)</th>
<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>
<td>*</td>
</tr>
<tr>
<td>PROPANE</td>
<td>74-98-6</td>
<td>&lt;3</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL</td>
<td>111-76-2</td>
<td>&lt;3</td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

4. 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
Note to physicians
Treat symptomatically.

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
<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>Property</td>
<td>Values</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>No information available</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></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>

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 Decomposition temperature  No information available
Kinematic viscosity  <5 cSt
Dynamic viscosity  No information available
Explosive properties  No information available
Oxidizing properties  No information available

Other Information
Softening point  No information available
Molecular weight  No information available
VOC Content (%)  8.4%
Density  No information available
Bulk density  No information available

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.
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) | 653200 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

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15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

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
- IECSC - 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</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>7732-18-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-BUTOXYETHANOL</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>111-76-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROPAINE</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>74-98-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISOBUTANE</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>75-28-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**WHMIS Hazard Class**

B5 - Flammable aerosol, A  Compressed gases

### 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>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td></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