1. Identification

**Product identifier**

BIO-TERGE PAS-8S

**Other means of identification**

**Product code**

0473

**Recommended use**

Surfactant

**Recommended restrictions**

For industrial use only.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

Stepan Company

**Address**

22 West Frontage Road

Northfield, IL 60093

USA

**Telephone**

General 1-847-446-7500

**E-mail**

Not available.

**Emergency phone number**

Medical 1-800-228-5635

Chemtrec 1-800-424-9300

Chemtrec Int'l +1 703-527-3887

2. Hazard(s) identification

**Physical hazards**

- Flammable liquids
  - Category 4

**Health hazards**

- Skin corrosion/irritation
  - Category 2
- Serious eye damage/eye irritation
  - Category 2B

**Environmental hazards**

Not classified.

**OSHA defined hazards**

Not classified.

**Label elements**

**Signal word**

Warning

**Hazard statement**

Combustible liquid. Causes skin irritation. Causes eye irritation.

**Precautionary statement**

**Prevention**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.

**Response**

If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

**Storage**

Store in a well-ventilated place. Keep cool.

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)**

None known.

**Supplemental information**

Not applicable.

3. Composition/information on ingredients

**Mixtures**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium octanesulfonate</td>
<td></td>
<td>5324-84-5</td>
<td>30 - &lt; 40</td>
</tr>
</tbody>
</table>
4. First-aid measures

**Inhalation**
Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact**
Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion**
Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting without advice from poison control center.

**Most important symptoms/effects, acute and delayed**
Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
Combustible liquid.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

**Precautions for safe handling**
Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>PEL</td>
<td></td>
<td>980 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td></td>
<td>400 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td></td>
<td>200 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td></td>
<td>1225 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td></td>
<td>980 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Biological limit values</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH Biological Exposure Indices</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>40 mg/l</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>Urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Clear.

Physical state

Liquid.

Form

Liquid.

Color

Not available.

Odor

Not available.

Odor threshold

Not available.

pH

4 - 6 (as is)

Melting point/freezing point

27 °F (-2.78 °C)

Initial boiling point and boiling range

Not available.

Flash point

171.0 °F (77.2 °C)

Evaporation rate

Not available.
### Flammability (solid, gas)
- Not available.

### Upper/lower flammability or explosive limits
- **Flammability limit - lower (%):** Not available.
- **Flammability limit - upper (%):** Not available.
- **Explosive limit - lower (%):** Not available.
- **Explosive limit - upper (%):** Not available.

### Flammability limit - lower (%)
- Not available.

### Flammability limit - upper (%)
- Not available.

### Explosive limit - lower (%)
- Not available.

### Explosive limit - upper (%)
- Not available.

### Vapor pressure
- Not available.

### Vapor density
- Not available.

### Relative density
- Not available.

### Solubility(ies)
- **Solubility (water):** Not available.

### Auto-ignition temperature
- Not available.

### Decomposition temperature
- Not available.

### Viscosity
- 17 cP @ 25C

### Other information
- **Density:** 8.86 lb/gal @ 25C
- **Percent volatile:** 56 - 60 %
- **Pour point:** 32 °F (0 °C)

### 10. Stability and reactivity

#### Reactivity
- The product is stable and non-reactive under normal conditions of use, storage and transport.

#### Chemical stability
- Material is stable under normal conditions.

#### Possibility of hazardous reactions
- No dangerous reaction known under conditions of normal use.

#### Conditions to avoid
- Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

#### Incompatible materials
- Strong oxidizing agents.

#### Hazardous decomposition products
- No hazardous decomposition products are known.

### 11. Toxicological information

#### Information on likely routes of exposure
- **Inhalation:** Prolonged inhalation may be harmful.
- **Skin contact:** Causes skin irritation.
- **Eye contact:** Causes eye irritation.
- **Ingestion:** Expected to be a low ingestion hazard.

#### Symptoms related to the physical, chemical and toxicological characteristics
- Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

#### Information on toxicological effects

#### Acute toxicity
- Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-TERGE PAS-8S</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LC50</strong></td>
<td>Rat</td>
<td>&gt; 5000 ml/kg</td>
</tr>
</tbody>
</table>

#### Skin corrosion/irritation
- Causes skin irritation.

#### Serious eye damage/eye irritation
- Causes eye irritation.

#### Respiratory or skin sensitization
- **Respiratory sensitization:** Not available.
Skin sensitization
This product is not expected to cause skin sensitization.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
Not applicable.

Specific target organ toxicity - repeated exposure
Not applicable.

Aspiration hazard
Not applicable.

Chronic effects
Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

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<tr>
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<td>Isopropanol (CAS 67-63-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td>Fish</td>
<td>LC50</td>
</tr>
</tbody>
</table>

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential
No data available.

Partition coefficient n-octanol / water (log Kow)
Isopropanol 0.05

Mobility in soil
No data available.

Other adverse effects
Not available.

13. Disposal considerations

Disposal instructions
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

General
The provided transportation classifications are for bulk shipments only and may not be representative of all package/shipment sizes.

DOT
- UN number: NA1993
- UN proper shipping name: Combustible Liquid, N.O.S. (Isopropanol)
- Transport hazard class(es): Combustible Liquid
  - Subsidiary risk: -
  - Packing group: III
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

IATA
Not regulated as dangerous goods.
15. Regulatory information

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.


Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

- **Hazard categories**
  - Immediate Hazard - Yes
  - Delayed Hazard - No
  - Fire Hazard - Yes
  - Pressure Hazard - No
  - Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**

Yes

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  Not regulated.

- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  Not regulated.

- **Safe Drinking Water Act (SDWA)**
  Not regulated.

- **FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**
  - Isopropanol (CAS 67-63-0) Low priority

**US state regulations**

- **US - New Jersey RTK - Substances: Listed substance**
  - Isopropanol (CAS 67-63-0)

- **US - Pennsylvania RTK - Hazardous Substances: Listed substance**
  - Isopropanol (CAS 67-63-0)

- **US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**
  Not listed.

- **US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**
  - Isopropanol (CAS 67-63-0)
(Refer to the provided document for content)