Stepan 5

SAFETY DATA SHEET

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

Company name

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'I

+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

Chemical name Common name and synonyms CAS number %

_Sodium octanesulfonate 5324-84-5 30 - < 40

| Chemical name | Common name and synonyms | CAS number | % | |
|----------------|--------------------------|------------|-------|--|
| Isopropanol | | 67-63-0 | 3-<5 | |
| Sodium sulfate | | 7757-82-6 | 1 - 5 | |

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.

Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting without advice from

poison control center.

Most important

Ingestion

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

Unsuitable extinguishing media

Specific hazards arising from the chemical

Special protective equipment

and precautions for firefighters Fire fighting

equipment/instructions

Specific methods General fire hazards Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

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.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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.

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

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

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.

Conditions for safe storage. including any incompatibilities

Keep away from heat, sparks and open flame. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

| US. O | SHA Table | 2-1 Limits | for Air | Contaminants | (29 CFR 1910.1 | 0001 |
|-------|-----------|------------|---------|--------------|----------------|------|
| | | | | | | |

| Components | Туре | Value | |
|--|---------------|------------|--|
| Isopropanol (CAS 67-63-0) | PEL | 980 mg/m3 | |
| | | 400 ppm | |
| US. ACGIH Threshold Limit Value | S | | |
| Components | Туре | Value | |
| Isopropanol (CAS 67-63-0) | STEL | 400 ppm | |
| | TWA | 200 ppm | |
| US. NIOSH: Pocket Guide to Chen | nical Hazards | | |
| Components | Туре | Value | |
| Isopropanol (CAS 67-63-0) | STEL | 1225 mg/m3 | |
| | | 500 ppm | |
| | TWA | 980 mg/m3 | |
| | | 400 ppm | |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time | |
|----------------------|---------------|-------------|----------|---------------|--|
| Isopropanol (CAS 67- | 63-0) 40 mg/l | Acetone | Urine | * | |

^{* -} 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. |

Material name: BIO-TERGE PAS-8S

Not available. Flammability (solid, gas) Upper/lower flammability or explosive limits 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 Solubility(ies) Not available. Solubility (water) Not available. **Auto-ignition temperature** Not available. **Decomposition temperature** 17 cP @ 25C Viscosity Other information 8.86 lb/gal @ 25C Density Percent volatile 56 - 60 % 32 °F (0 °C) Pour point 10. Stability and reactivity The product is stable and non-reactive under normal conditions of use, storage and transport. Reactivity Material is stable under normal conditions. Chemical stability No dangerous reaction known under conditions of normal use. Possibility of hazardous reactions Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the Conditions to avoid flash point. Contact with incompatible materials. Strong oxidizing agents. Incompatible materials No hazardous decomposition products are known. Hazardous decomposition products 11. Toxicological information Information on likely routes of exposure Prolonged inhalation may be harmful. Inhalation Causes skin irritation. Skin contact Causes eye irritation. Eve contact Expected to be a low ingestion hazard. Ingestion Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May Symptoms related to the cause redness and pain. physical, chemical and toxicological characteristics Information on toxicological effects Expected to be a low hazard for usual industrial or commercial handling by trained personnel. Acute toxicity **Test Results Product Species**

BIO-TERGE PAS-8S

Acute Other

LC50

> 5000 ml/kg Rat

Causes skin irritation. Skin corrosion/irritation

Causes eye irritation. Serious eye damage/eye

irritation Respiratory or skin sensitization

Not available. Respiratory sensitization

Material name: BIO-TERGE PAS-8S

This product is not expected to cause skin sensitization. Skin sensitization

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

mutagenic or genotoxic.

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

IARC Monographs, Overall Evaluation of Carcinogenicity

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

Isopropanol (CAS 67-63-0)

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.

Components **Species**

Aquatic

Fish

LC50

Bluegill (Lepomis macrochirus)

> 1400 mg/l, 96 hours

Test Results

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

UN proper shipping name Transport hazard class(es) Combustible Liquid, N.O.S. (Isopropanol)

Class

Combustible Liquid

Subsidiary risk

Ш Packing group

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

Not regulated as dangerous goods.

Material name: BIO-TERGE PAS-8S

SDS US

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and

Not available.

the IBC Code

DOT



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)

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

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

Yes

chemical

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

Not regulated.

(SDWA)

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)

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

Isopropanol (CAS 67-63-0)

US. Massachusetts RTK - Substance List

Isopropanol (CAS 67-63-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Isopropanol (CAS 67-63-0)

US. Rhode Island RTK

Isopropanol (CAS 67-63-0)

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory (NZIoC) | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

 Issue date
 08-31-2014

 Revision date
 03-13-2017

Version#

03

Disclaimer

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Revision information

Hazard(s) identification: Prevention

Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties

Ecological Information: Ecotoxicity Transport information: General

Regulatory information: California Prop 65

Other information, including date of preparation or last revision: Disclaimer

HazReg Data: North America

GHS: Classification