ProKlenz® Booster Sterile Detergent

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 04/02/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form: Mixture
Trade name: ProKlenz® Booster Sterile Detergent
Product code: 1S13

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Sterile Detergent

1.3. Details of the supplier of the safety data sheet

STERIS Corporation
P. O. Box 147, St. Louis, MO 63166, US
Telephone Number for Information: 1-800-444-9009 (Customer Service-Scientific Products)

1.4. Emergency telephone number

Emergency number: US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Acute Tox Oral 5  H303
Eye Dam. 1 H318

2.2. Label elements

GHS-US labelling
Hazard pictograms (GHS-US):

Signal word (GHS-US): Danger
Hazard statements (GHS-US): H303 – May be harmful if swallowed
H318 - Causes serious eye damage
Precautionary statements (GHS-US): P280 - Wear protective gloves,clothing,eye and face protection
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexyl D-glucoside</td>
<td>(CAS No) 54549-24-5</td>
<td>5 - 10</td>
<td>Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>
| Hydrogen peroxide     | (CAS No) 7722-84-1 | 3-7 | Ox. Liq. 1, H271
Acute Tox. 4 (Oral), H302
Acute Tox. 4 (Dermal), H312
Acute Tox. 4 (Inhalation), H332
Skin Corr. 1A, H314
Eye Dam. 1, H318
STOT SE 3, H335
Aquatic Chronic 3, H412 |
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<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
</table>
| Poly(oxy-1,2-ethanediyl), .alpha.-phenyl.-omega.-hydroxy- | (CAS No) 9004-78-8 | 3-7 | Skin Irrit. 2, H315  
 |  |  |  | Eye Irrit. 2A, H319 |
| Alcohols, C9-11, ethoxylated | (CAS No) 68439-46-3 | 3-7 | Eye Dam. 1, H318 |
| Poly(oxy-1,2-ethanediyl), .alpha.-(2-ethylhexyl)-omega.-hydroxy- | (CAS No) 26468-86-0 | 1-2 | Skin Irrit. 2, H315  
 |  |  |  | Eye Irrit. 2A, H319 |

**SECTION 4: First aid measures**

4.1. **Description of first aid measures**

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical attention.

First-aid measures after skin contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately get medical attention.

First-aid measures after ingestion: Do NOT induce vomiting. If victim completely conscious/alert. Rinse mouth. Give water or milk if the person is fully conscious. Immediately call a POISON CENTER or doctor/physician.

4.2. **Most important symptoms and effects, both acute and delayed**

Symptoms/injuries after inhalation: Inhalation of vapors or spray/mists. May be irritating to the mucous membranes and to the respiratory system.

Symptoms/injuries after skin contact: Causes skin irritation.

Symptoms/injuries after eye contact: Causes serious eye irritation.

Symptoms/injuries after ingestion: Can occur: gastrointestinal disturbance.

4.3. **Indication of any immediate medical attention and special treatment needed**

No additional information available

**SECTION 5: Firefighting measures**

5.1. **Extinguishing media**

Suitable extinguishing media: Flood with plenty of water. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Organic compounds. As hydrogen peroxide may react with a variety of organic materials and can form explosive mixtures, shock sensitive compounds, and initiate fire. Foam is not effective as oxygen and heat continue to be generated under the foam blanket.

5.2. **Special hazards arising from the substance or mixture**

Hazardous decomposition products in case of fire: This product contains : Hydrogen peroxide. On decomposition releases oxygen which may intensify fire. Containers may swell and burst during a fire due to internal pressure caused by heat

5.3. **Advice for firefighters**

Firefighting instructions: Exercise caution when fighting any chemical fire.

Protective equipment for firefighters: Use self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Oxygen evolution decomposition may burst sealed containers and accelerate the burning rates of other combustible materials. Damp material in contact with paper, wood, cloth, etc. may cause spontaneous combustion of the organic material.

**SECTION 6: Accidental release measures**

6.1. **Personal precautions, protective equipment and emergency procedures**

General measures: Ensure adequate ventilation. Avoid contact with skin, eyes and clothes. Do not breathe fumes, vapors. Stop leak if safe to do so.

6.1.1. **For non-emergency personnel**

Protective equipment: Wear protective gloves and eye/face protection. For further information refer to section 8: Exposure-controls/personal protection.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. **For emergency responders**

Protective equipment: Equip cleanup crew with proper protection.
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Emergency procedures : Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible, followed by a water rinse. Collect spillage. Store away from other materials. Do not absorb in sawdust, paper, cloth or other combustible absorbents. Comply with applicable local, national and international regulation.

Other information : Product may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation.

6.4. Reference to other sections
See Heading 8, Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling : Read label before use. Provide good ventilation in process area to prevent formation of vapour. Avoid all eye and skin contact and do not breathe vapor and mist. Keep away from incompatible materials. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not wear leather soled shoes.

Hygiene measures : Take care for general good hygiene and housekeeping. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated clothing should be washed thoroughly in order to eliminate a delayed potential fire hazard.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures : Provide adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.
Storage conditions : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
Prohibitions on mixed storage : Do not store near oxidizing agents. keep away from incompatible materials.
Storage area : Store in dry, cool, well-ventilated area.
Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Hydrogen peroxide (7722-84-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA ACGIH</td>
</tr>
<tr>
<td>USA OSHA</td>
</tr>
<tr>
<td>USA OSHA</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Protective clothing. Gloves. Protective goggles.

Hand protection : Wear protective gloves. Use neoprene or rubber gloves. Use gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected.

Eye protection : Wear chemical splash goggle.

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Skin and body protection: Wear suitable protective clothing. Wear long sleeves. Boots.
Respiratory protection: Work in well-ventilated zones or use proper respiratory protection. Wear appropriate mask.
Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Light amber. liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Light amber.</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight. chemical odor.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>4.5 - 6</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Self ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.04 g/ml Specific Gravity</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: completely soluble</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
Thermal decomposition generates: Corrosive vapours.

10.2. Chemical stability
Stable under normal conditions of use.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Extremely high or low temperatures.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Carbon monoxide. Carbon dioxide. Toxic fumes may be released.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Acute toxicity: >5000 mg/kg (rat)

**Hydrogen peroxide (7722-84-1)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>801 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>4060 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>2 g/m³ (Exposure time: 4 h)</td>
</tr>
<tr>
<td>ATE (oral)</td>
<td>801,000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE (dermal)</td>
<td>2000,000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE (gases)</td>
<td>4500,000 ppmV/4h</td>
</tr>
<tr>
<td>ATE (vapours)</td>
<td>2.000 mg/l/4h</td>
</tr>
<tr>
<td>ATE (dust,mist)</td>
<td>2.000 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

**SECTION 12: Ecological information**

12.1. Toxicity

**Hydrogen peroxide (7722-84-1)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes 1</td>
<td>16.4 mg/l (Exposure time: 96 h - Species: Pimephales promelas)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>7.7 mg/l (Exposure time: 24 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td>EC50 other aquatic organisms 1</td>
<td>2.5 mg/l (Exposure time: 72 h - Species: Chlorella vulgaris)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>18 - 56 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>18 - 32 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

**ProKlenz® Booster Sterile Detergent**


12.3. Bioaccumulative potential

**ProKlenz® Booster Sterile Detergent**

Bioaccumulative potential: Not established.

**Hydrogen peroxide (7722-84-1)**

BCF fish 1: (no bioaccumulation)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Avoid release to the environment.
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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

| Waste disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. Empty containers should be thoroughly rinsed with large quantities of clean water. Consult the appropriate authorities about waste disposal. |
| Additional information | : Do not re-use empty containers. Container remains hazardous when empty. Continue to observe all precautions. |

## SECTION 14: Transport information

### In accordance with DOT

#### 14.1. UN number

No dangerous good in sense of transport regulations

#### 14.2. UN proper shipping name

Not applicable

#### 14.3. Transport hazard class(es)

Not applicable

#### 14.4. Packing group

Not applicable

#### 14.5. Environmental hazards

| Dangerous for the environment | : No |
| Marine pollutant | : No |
| Other information | : No supplementary information available |

#### 14.6. Special precautions for user

**14.6.1. Overland transport**

No additional information available

**14.6.2. Transport by sea**

No additional information available

**14.6.3. Air transport**

No additional information available

**14.6.4. Inland waterway transport**

No additional information available

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

- **Poly(oxy-1,2-ethanediyl), .alpha.-[2-ethylhexyl].omega.-hydroxy- (26468-86-0)**
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory

- **Poly(oxy-1,2-ethanediyl), .alpha.-phenyl.-omega.-hydroxy- (9004-78-8)**
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory

- **Hydrogen peroxide (7722-84-1)**
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory
  
  Listed on SARA Section 302 (Specific toxic chemical listings)

  | SARA Section 302 Threshold Planning Quantity (TPQ) | 1000 (concentration >52%) |

- **Alcohols, C9-11, ethoxylated (68439-46-3)**
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory

- **Hexyl D-glucoside (54549-24-5)**
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

Not applicable
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15.3. US State regulations
Not applicable

SECTION 16: Other information
Revision date : 04/02/2015

Full text of H-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 5 (oral)</th>
<th>Acute toxicity (oral), Category 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Dermal)</td>
<td>Acute toxicity (dermal) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation)</td>
<td>Acute toxicity (inhalation) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Aquatic Chronic 3</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 3</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage/eye irritation, Category 2A</td>
</tr>
<tr>
<td>Ox. Liq. 1</td>
<td>Oxidising Liquids, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion/irritation Category 1A</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) Category 3</td>
</tr>
<tr>
<td>H271</td>
<td>May cause fire or explosion; strong oxidiser</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 0 - Materials that will not burn.
NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.

SDS US (GHS HazCom 2012)
The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.