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
Product group: Trade product

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

1.2.1. Relevant identified uses

Industrial/Professional use spec: Product for industrial use only
Use of the substance/mixture: High Performance Detergent Additive

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer:
STERIS Corporation
P. O. Box 147, St. Louis, MO 63166, US
Telephone Number for Information: 1-800-444-9009 (Customer Service-Scientific Products)
US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)
Supplier:
STERIS Ireland Limited
IDA Business and Technology Park
Tullamore
County Offaly
R35 X865
Ireland.
Product/Technical Information Phone No: +44 (0) 116 276 8636
Email: asksteris_msds@steris.com

1.4. Emergency telephone number

Emergency number: +44 (0) 1895 622 639

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acute Tox Oral 5 H303
Eye Dam. 1 H318

Full text of H-phrases: see section 16

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):

Signal word (CLP): Danger
Hazard statements (CLP): H303 - May be harmful if swallowed
H318 - Causes serious eye damage
Precautionary statements (CLP):
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

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexyl D-glucoside</td>
<td>(CAS No) 54549-24-5 (EC no) 259-217-6</td>
<td>5 - 10</td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>(CAS No) 7722-84-1 (EC no) 231-765-0 (EC Index no) 008-003-00-9</td>
<td>3 - 7</td>
<td>Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td>(CAS No) 68439-46-3 (EC no) 614-482-0</td>
<td>3 - 7</td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-(-2-ethylhexyl)-,omega- hydroxy-</td>
<td>(CAS No) 28468-86-0 (EC no) 607-943-2</td>
<td>3 - 7</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

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 vapours 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.

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 vapour 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>Substance</th>
<th>United Kingdom WEL TWA (mg/m³)</th>
<th>United Kingdom WEL TWA (ppm)</th>
<th>United Kingdom WEL STEL (mg/m³)</th>
<th>United Kingdom WEL STEL (ppm)</th>
<th>USA - ACGIH ACGIH TWA (ppm)</th>
<th>USA - IDLH US IDLH (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide (7722-84-1)</td>
<td>1.4 mg/m³</td>
<td>1 ppm</td>
<td>2.8 mg/m³</td>
<td>2 ppm</td>
<td>1 ppm</td>
<td>75 ppm</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 safety glasses.

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>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**
Strong alkalis, strong oxidizers, organic materials, reducing agent, alkali metals, metal salts. Readily oxidizable materials such as paper, wood, sulfur and aluminum. Copper and its alloys

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

**SECTION 11: Toxicological information**

11.1. **Information on toxicological effects**

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>&gt;5000 mg/kg (rat)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hydrogen peroxide (7722-84-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
</tr>
<tr>
<td>ATE (oral)</td>
</tr>
<tr>
<td>ATE (dermal)</td>
</tr>
<tr>
<td>ATE (gases)</td>
</tr>
<tr>
<td>ATE (vapours)</td>
</tr>
<tr>
<td>ATE (dust,mist)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified

pH: 4.5 - 6

Serious eye damage/irritation: Causes serious eye damage

pH: 4.5 - 6

Respiratory or skin sensitisation: Not classified

Based on available data, the classification criteria are not met

Germ cell mutagenicity: Not classified

Based on available data, the classification criteria are not met

Carcinogenicity: Not classified

Based on available data, the classification criteria are not met

Reproductive toxicity: Not classified

Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure): Not classified

Based on available data, the classification criteria are not met

Specific target organ toxicity (repeated exposure): Not classified

Based on available data, the classification criteria are not met

Aspiration hazard: Not classified

Based on available data, the classification criteria are not met

**SECTION 12: Ecological information**

12.1. **Toxicity**

<table>
<thead>
<tr>
<th>Hydrogen peroxide (7722-84-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
<tr>
<td>EC50 other aquatic organisms 1</td>
</tr>
<tr>
<td>LC50 fish 2</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
</tr>
</tbody>
</table>
12.2. Persistence and degradability
ProKlenz® Booster Sterile Detergent
Persistence and degradability
The surfactants contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their request or at the request of a detergent manufacturer.

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. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
: Avoid release to the environment

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
Ecology - waste materials
: Avoid release to the environment

SECTION 14: Transport information
In accordance with ADR / RID / IMDG / IATA / ADN

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
Transport regulations (IATA)
: Do not ship by air transport due to the existence of a vented closure as there is a potential of pressure increase due to release of oxygen

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
ProKlenz® Booster Sterile Detergent
Safety Data Sheet
according to Regulation (EC) No. 453/2010

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
Contains no REACH candidate substance

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No chemical safety assessment has been carried out

SECTION 16: Other information

Revision date: 01/08/2018

Full text of H- and EUH-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Inhalation)</th>
<th>Acute toxicity (inhalation), Category 4</th>
</tr>
</thead>
<tbody>
<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>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>H303</td>
<td>May be harmful if swallowed</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>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>

SDS EU (REACH Annex II)

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.