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

1.1. Product identifier
Product form: Mixture
Trade name: ProKlenz NpH® Sterile Detergent
Product code: 1S12

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Product for Industrial Use only
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. 5 (oral) H303
Acute Tox. 5 (dermal) H313
Skin Corr. 2 H315
Eye Dam. 2A H319

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US): [Image]

Signal word (GHS-US): Warning
Hazard statements (GHS-US): H303 - May be harmful if swallowed
H313 - May be harmful in contact with skin
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (GHS-US): P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves/protective clothing and eye/face protection
P302+P352 - IF ON SKIN: Wash with plenty of water
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
P312 - Call a POISON CENTER or doctor if you feel unwell
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse

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
ProKlenz® NpH Sterile Detergent
Safety Data Sheet
according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

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>Dipropylene glycol monomethyl ether substance with a Community</td>
<td>(CAS No) 34590-94-8</td>
<td>7 - 13</td>
<td>Not classified</td>
</tr>
<tr>
<td>workplace exposure limit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>substance with national workplace exposure limit(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triethanolamine substance with national workplace exposure limit(s)</td>
<td>(CAS No) 102-71-6</td>
<td>5 - 10</td>
<td>Not classified</td>
</tr>
<tr>
<td>(REACH No) 01-2119486482-31-0035</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citric acid</td>
<td>(CAS No) 77-92-9</td>
<td>1 - 5</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>(REACH No) 01-2119457026-42-0067</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Octyl(dimethyl)amine Oxide</td>
<td>(CAS No) 2605-78-9</td>
<td>1 - 5</td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>(REACH no) 01-2119409076-45-0002</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

Symptoms/injuries after skin contact: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact: Causes serious eye irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media


5.2. Special hazards arising from the substance or mixture


5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protective equipment for firefighters: Use self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Do not breathe fumes, vapors. Avoid contact with skin, eyes and clothes.

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. Stop leak if safe to do so.

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.

80/07/2019 EN (English) 1S12US 2/7
Methods and material for containment and cleaning up

Methods for cleaning up:
Comply with applicable local, national and international regulation. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect all waste in suitable and labelled containers and dispose according to local legislation. Store away from other materials. Small spills: wipe away or flush away with water. Small spills may be flushed to a sanitary sewer with copious amounts of water.

Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

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. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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.

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 locked up and out of reach of children. Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

Incompatible materials:

Storage temperature:
< 32 °C (< 90 °F)

Storage area:
Store in dry, cool, well-ventilated area.

Special rules on packaging:
Check only in original container. Correctly labelled.

Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

Control parameters

Dipropylene glycol monomethyl ether (34590-94-8)

<table>
<thead>
<tr>
<th>Source</th>
<th>Standard</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA - ACGIH</td>
<td>ACGIH TWA (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>USA - ACGIH</td>
<td>ACGIH STEL (ppm)</td>
<td>150 ppm</td>
</tr>
<tr>
<td>USA - IDLH</td>
<td>US IDLH (ppm)</td>
<td>600 ppm</td>
</tr>
<tr>
<td>USA - NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>600 mg/m³</td>
</tr>
<tr>
<td>USA - NIOSH</td>
<td>NIOSH REL (TWA) (ppm)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>USA - NIOSH</td>
<td>NIOSH REL (STEL) (mg/m³)</td>
<td>900 mg/m³</td>
</tr>
<tr>
<td>USA - NIOSH</td>
<td>NIOSH REL (STEL) (ppm)</td>
<td>150 ppm</td>
</tr>
<tr>
<td>USA - OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>600 mg/m³</td>
</tr>
<tr>
<td>USA - OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

Triethanolamine (102-71-6)

<table>
<thead>
<tr>
<th>Source</th>
<th>Standard</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA - ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

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.
ProKlenz® NpH Sterile Detergent

Safety Data Sheet

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

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 rubber gloves.
Eye protection: Wear chemical splash goggle.
Skin and body protection: Wear suitable protective clothing.
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>Clear</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild. chemical odor</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6.9 Approximately</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 vapor 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>ca. 1.035 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

No additional information available

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute toxicity</strong></td>
<td><strong>ProKlenz® NpH Sterile Detergent</strong></td>
<td>LD50 oral rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>****</td>
<td><strong>Dipropylene glycol monomethyl ether (34590-94-8)</strong></td>
<td>LD50 oral rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5230 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ATE (oral) 5230,000 mg/kg bodyweight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ATE (dermal) 9500,000 mg/kg bodyweight</td>
</tr>
<tr>
<td>****</td>
<td><strong>Triethanolamine (102-71-6)</strong></td>
<td>LD50 oral rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4190 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ATE (oral) 4190,000 mg/kg bodyweight</td>
</tr>
<tr>
<td>****</td>
<td><strong>Octyldimethyamine Oxide (2605-78-9)</strong></td>
<td>LD50 oral rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

| **Skin corrosion/irritation** | Not classified |
| **pH:** | 6.9 Approximately |

| **Serious eye damage/irritation** | Causes serious eye damage. |
| **pH:** | 6.9 Approximately |

| **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** |

| **Potential Adverse human health effects and symptoms** | Harmful if swallowed. |

SECTION 12: Ecological information

12.1. Toxicity

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ProKlenz® NpH Sterile Detergent</strong></td>
<td>LC50 fishes 1</td>
<td>&gt; 750 mg/l</td>
</tr>
<tr>
<td><strong>Citric acid (77-92-9)</strong></td>
<td>LC50 fishes 1</td>
<td>1516 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
<tr>
<td></td>
<td>EC50 Daphnia 1</td>
<td>120 mg/l (Exposure time: 72 h - Species: Daphnia magna)</td>
</tr>
</tbody>
</table>
12.2. Persistence and degradability

**ProKlenz® NpH® Sterile Detergent**

Persistence and degradability

The surfactant(s) contained in this preparation comply 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 direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

**ProKlenz® NpH® Sterile Detergent**

Bioaccumulative potential

Not established.

**Citric acid (77-92-9)**

Log Pow

-1.72 (at 20 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

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

Additional information: Do not re-use empty containers. Rinse with water. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

Ecology - waste materials: Avoid release to the environment.

**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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Inventory Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric acid (77-92-9)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Octyldimethylamine Oxide (2605-78-9)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

### 15.2. International regulations

Not applicable

### 15.3. US State regulations

Not applicable

## SECTION 16: Other information

**Revision date:** 08/07/2019

**Other information:** None.

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. 5 (dermal)</td>
<td>Acute toxicity (dermal), Category 5</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>Skin Irrit. 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>H303</td>
<td>May be harmful if swallowed</td>
</tr>
<tr>
<td>H313</td>
<td>May be harmful in contact with skin</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>
</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:**

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

---

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.