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

1.1. Product identifier

Product form: Mixture
Trade name: 6% Hydrogen Peroxide WFI Sterile Solution
Product code: 1S05
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: Surface cleaner

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_msdsc@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]
Eye Irrit. 2 - H319

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP):

GHS07

Signal word (CLP): Warning
Hazard statements (CLP): H319 - Causes serious eye irritation
Precautionary statements (CLP):
P280 - Wear protective gloves/protective clothing and eye/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

01/22/2018 EN (English) SDS Ref: 1S05UK 1/7
6% Hydrogen Peroxide WFI Sterile Solution
Safety Data Sheet
according to Regulation (EC) No. 453/2010

EUH phrases
P337+P313 - If eye irritation persists: Get medical advice/attention

EUH210 - Safety data sheet available on request

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>Hydrogen peroxide</td>
<td>(CAS No) 7722-84-1 (EC no) 231-765-0 (EC index no) 008-003-00-9</td>
<td>6</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>
</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: May be irritating to the mucous membranes and to the respiratory system

Symptoms/injuries after skin contact: Frequent or prolonged contact with skin may cause dermal irritation

Symptoms/injuries after eye contact: Causes serious eye irritation

Symptoms/injuries after ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract

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

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: 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. 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: Stop leak if safe to do so. 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. 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.

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>Hydrogen peroxide (7722-84-1)</th>
<th>United Kingdom WEL TWA (mg/m³)</th>
<th>1.4 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United Kingdom WEL TWA (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td></td>
<td>United Kingdom WEL STEL (mg/m³)</td>
<td>2.8 mg/m³</td>
</tr>
<tr>
<td></td>
<td>United Kingdom WEL STEL (ppm)</td>
<td>2 ppm</td>
</tr>
<tr>
<td></td>
<td>USA - ACGIH ACGIH TWA (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td></td>
<td>USA - IDLH US IDLH (ppm)</td>
<td>75 ppm</td>
</tr>
<tr>
<td></td>
<td>USA - NIOSH NIOSH REL (TWA) (mg/m³)</td>
<td>1.4 mg/m³</td>
</tr>
<tr>
<td></td>
<td>USA - NIOSH NIOSH REL (TWA) (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td></td>
<td>USA - OSHA OSHA PEL (TWA) (mg/m³)</td>
<td>1.4 mg/m³</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. The following pictograms represent the minimum requirements for personal protective equipment. Protective clothing: Gloves. Protective eyewear.

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

Eye protection: Wear protective eyewear.

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

**Physical state**: Liquid

**Appearance**: Clear.

**Colour**: Colourless

**Odour**: Odourless

**Odour threshold**: No data available

**pH**: 4.1

**Relative evaporation rate (butylacetate=1)**: No data available

**Melting point**: No data available

**Freezing point**: No data available

**Boiling point**: No data available

**Flash point**: No data available

**Self ignition temperature**: No data available

**Decomposition temperature**: No data available

**Flammability (solid, gas)**: No data available

**Vapour pressure**: No data available

**Relative vapour density at 20 °C**: No data available

**Relative density**: No data available

**Density**: ca. 1.021 g/ml Specific Gravity

**Solubility**: Water: completely soluble

**Log Pow**: No data available

**Viscosity, kinematic**: No data available

**Viscosity, dynamic**: No data available

**Explosive properties**: Oxidizer.

**Explosive limits**: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates: Corrosive vapours.
6% Hydrogen Peroxide WFI Sterile Solution
Safety Data Sheet
according to Regulation (EC) No. 453/2010

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
Toxic fumes may be released

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Hydrogen peroxide (7722-84-1)

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

Skin corrosion/irritation : Not classified
pH: 4,1

Serious eye damage/irritation : Causes serious eye irritation
pH: 4,1

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

Hydrogen peroxide (7722-84-1)

<table>
<thead>
<tr>
<th></th>
<th>LC50 fishes 1</th>
<th>EC50 Daphnia 1</th>
<th>EC50 other aquatic organisms 1</th>
<th>LC50 fish 2</th>
<th>EC50 Daphnia 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16.4 mg/l (Exposure time: 96 h - Species: Pimephales promelas)</td>
<td>7.7 mg/l (Exposure time: 24 h - Species: Daphnia magna)</td>
<td>2.5 mg/l (Exposure time: 72 h - Species: Chlorella vulgaris)</td>
<td>18 - 56 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [Static])</td>
<td>18 - 32 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
</tr>
</tbody>
</table>
### 12.2. Persistence and degradability
No additional information available

### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>6% Hydrogen Peroxide WFI Sterile Solution</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not established</td>
</tr>
</tbody>
</table>

| Hydrogen peroxide (7722-84-1) | (no bioaccumulation) |

### 12.4. Mobility in soil
No additional information available

<table>
<thead>
<tr>
<th>6% Hydrogen Peroxide WFI Sterile Solution</th>
<th>BCF fish 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(no bioaccumulation)</td>
</tr>
</tbody>
</table>

### 12.5. Results of PBT and vPvB assessment
No additional information available

### 12.6. Other adverse effects
No additional information available

### 13: Disposal considerations

#### 13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Waste disposal recommendations</th>
<th>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</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional information</td>
<td>Do not re-use empty containers. Container remains hazardous when empty. Continue to observe all precautions</td>
</tr>
<tr>
<td>Ecology - waste materials</td>
<td>No additional information available</td>
</tr>
</tbody>
</table>

### 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>14.1. UN number</th>
<th>No dangerous goods in sense of transport regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>No</td>
</tr>
<tr>
<td>Dangerous for the environment</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>No</td>
</tr>
<tr>
<td>Other information</td>
<td>No supplementary information available</td>
</tr>
</tbody>
</table>

### 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 |

### 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 |
Seveso Information : Not available

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

Révision date : 01/22/2018

Sources of Key data

Other information : None

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>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</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>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>H314</td>
<td>Causes severe skin burns and eye damage</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>

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.