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

### 1.1. Product identifier

| Product form | : Mixture |
| Trade name  | 5.25% Hypochlorite WFI Sterile Solution |
| Product code | 1S06 |
| 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_msd@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]**

- Skin Corr. 1B   H314
- Eye Dam. 1      H318
- Aquatic Acute 1 H400

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):
  - GHS05
  - GHS09

**Signal word (CLP):** Danger

**Hazard statements (CLP):**
- H314 - Causes severe skin burns and eye damage
- H400 - Very toxic to aquatic life

**Precautionary statements (CLP):**
- P260 - Do not breathe mist, vapours, spray
- P273 - Avoid release to the environment
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P280 - Wear suitable protective clothing, gloves, and eye/face protection
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P501 - Dispose of contents/container to Comply with applicable local, national and international regulation

EUH phrases : EUH031 - Contact with acids liberates toxic gas

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>Sodium hypochlorite</td>
<td>(CAS No) 7681-52-9</td>
<td>5.25</td>
<td>Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10)</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. Immediately get medical attention
First-aid measures after skin contact : 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. If eye irritation persist, seek medical advice and attention. Remove contact lenses, if present and easy to do. Continue rinsing
First-aid measures after ingestion : Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting unless directed to do so by medical personnel. Give water to drink if victim completely conscious/alert

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries : Causes severe skin burns and eye damage
Symptoms/injuries after inhalation : The inhalation of airborne droplets or aerosols causes irritation of the respiratory tract. The following symptoms may occur: Runny nose. Sore throat. Coughing, sneezes. Shortness of breath
Symptoms/injuries after eye contact : Causes serious eye damage. May cause severe burns
Symptoms/injuries after ingestion : May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea

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 : Use extinguishing media appropriate for surrounding fire. Foam. Dry powder. Carbon dioxide. Water spray

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters
Precautionary measures fire : Contact with combustible material may cause fire. Contact with metallic substances may release flammable hydrogen gas. Risk of fire in the presence of organic materials
Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment
Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus
Other information : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries
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Safety Data Sheet
according to Regulation (EC) No. 453/2010

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

<table>
<thead>
<tr>
<th>General measures</th>
<th>Do not breathe fumes, vapors. Avoid contact with skin, eyes and clothes</th>
</tr>
</thead>
</table>

6.1.1. For non-emergency personnel

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Wear suitable protective clothing. Wear protective gloves and eye/face protection. Boots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency procedures</td>
<td>Evacuate unnecessary personnel. Stop leak if safe to do so</td>
</tr>
</tbody>
</table>

6.1.2. For emergency responders

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Equip cleanup crew with proper protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency procedures</td>
<td>Ventilate area</td>
</tr>
</tbody>
</table>

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

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect in closed containers for disposal. Store away from other materials. Wash contaminated area with large amounts of water. Collect spillage. This material and its container must be disposed of in a safe way, and as per local legislation

Other information

Keep combustibles (wood, paper, oil, etc.) away from spilled material

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

Product for industrial use only. Wash hands thoroughly after handling. Provide good ventilation in process area to prevent formation of vapour. Do not breathe gas, fumes, vapour or spray. Keep container tightly closed to avoid moisture absorption and contamination

Hygiene measures

Wash hands thoroughly after handling. Take care for general good hygiene and housekeeping. Wash contaminated clothing prior to re-use

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

Comply with applicable regulations. A washing facility/water for eye and skin cleaning purposes should be present. Provide adequate ventilation

Storage conditions

Keep 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


Heat and ignition sources

Store away from excessive heat

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

No additional information available

8.2. Exposure controls

Appropriate engineering controls

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

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 goggles

Hand protection

Wear protective gloves, rubber or plastic gloves

Eye protection

Chemical goggles. Face shield

Skin and body protection

Wear suitable protective clothing

Respiratory protection

Protection factors vary depending upon the type of respirator used. Use appropriate respiratory protection

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**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 to slightly hazy</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless to yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>12.1</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>1.076 - 1.09 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

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

Do not expose to heat. Light. Incompatible materials

#### 10.5. Incompatible materials


#### 10.6. Hazardous decomposition products

Thermal decomposition generates: Corrosive vapours. Chlorine. Sodium oxide

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**

Not classified

##### 5.25% Hypochlorite WFI Sterile Solution

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral</td>
<td>&gt; 5800 mg/kg Mouse</td>
</tr>
</tbody>
</table>

##### Sodium hypochlorite (7681-52-9)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>8200 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 10000 mg/kg</td>
</tr>
<tr>
<td>ATE (oral)</td>
<td>8200,000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**

Causes severe skin burns and eye damage

pH: 12.1
### 5.25% Hypochlorite WFI Sterile Solution

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<table>
<thead>
<tr>
<th>Section</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Serious eye damage/irritation</strong></td>
<td>Causes serious eye damage&lt;br&gt;Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitisation</strong></td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>Not classified&lt;br&gt;Based on available data, the classification criteria are not met</td>
</tr>
<tr>
<td><strong>Reproductive toxicity</strong></td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>Specific target organ toxicity (single exposure)</strong></td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>Specific target organ toxicity (repeated exposure)</strong></td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>Aspiration hazard</strong></td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - general : Very toxic to aquatic life

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50</th>
<th>EC50</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite (7681-52-9)</td>
<td>0.06 - 0.11 mg/l (Exposure time: 96 h - Species: Pimephales promelas [Flow-through])</td>
<td>0.033 - 0.044 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.5 - 7.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [Static])</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

5.25% Hypochlorite WFI Sterile Solution

Persistence and degradability : Not established

**12.3. Bioaccumulative potential**

5.25% Hypochlorite WFI Sterile Solution

Bioaccumulative potential : Not established

**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

Additional information : Dispose of empty containers and wastes safely. Empty container retains product residue. Dilute residue with water. Product may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation. Dispose in a safe manner in accordance with local/national regulations

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
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. 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 : 01/24/2018


Other information : 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 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

Full text of H- and EUH-phrases:

<table>
<thead>
<tr>
<th>Aquatic Acute 1</th>
<th>Hazardous to the aquatic environment — AcuteHazard, Category 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation, Category 1B</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>H400</td>
<td>Very toxic to aquatic life</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.