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

1.1. Product identifier

Product form : Mixture
Trade name : CIP 130™
Product code : 1C13

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

Industrial/Professional use spec : For industrial and institutional use only. Not for home use.
Use of the substance/mixture : Process Cleaning 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
Skin Corr. 1A H314
Eye Dam. 1 H318

2.2. Label elements

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

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
Precautionary statements (GHS-US) : P260 - Do not breathe mist, spray, vapors
P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves, protective clothing, eye protection
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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
P363 - Wash contaminated clothing before reuse.

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.
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 patient 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. Take off immediately all contaminated clothing. Obtain medical 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. Seek medical attention immediately.

First-aid measures after ingestion: If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. 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: Inhalation of mists is extremely irritating to mucous membranes and upper respiratory tract.
Symptoms/injuries after skin contact: May cause severe burns. Severe skin irritant.
Symptoms/injuries after eye contact: Corrosive to eyes. Causes serious eye damage.
Symptoms/injuries after ingestion: Swallowing a small quantity of this material will result in serious health hazard. Although ingestion is an unlikely route of entry, ingestion will cause corrosion of the mouth and the upper gastrointestinal tract. Swelling of the tissues in the throat and mouth may result in extreme difficulty in swallowing. Significant swelling may restrict air passages. In all cases of ingestion, the risk of aspiration into the lungs exists. Entry into the lungs can cause permanent damage to the lungs resulting in pulmonary edema. This condition may lead to death.

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.

5.2. Special hazards arising from the substance or mixture

No additional information available.

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.

Other information: May react with soft metals to evolve flammable hydrogen gas. Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide.

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. Use personal protective equipment as required. Stop leak if safe to do so.
6.1.1. For non-emergency personnel
Protective equipment: Wear suitable protective clothing. 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. Avoid release to the environment.

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. Neutralise spill carefully with any weak acid and flush remainder with plenty of water. Consult hazardous waste contractor for disposal of large amounts. 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 areas with large quantities of water to a sanitary sewer, if in accordance with local, state or national legislation. Ensure all national/local regulations are observed.

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. Read label before use. Avoid contact with skin, eyes and clothing. Avoid breathing mist or vapor. Provide good ventilation in process area to prevent formation of vapor. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene measures: Wash hands thoroughly after handling. Take care for general good hygiene and housekeeping. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: A washing facility/water for eye and skin cleaning purposes should be present. Provide adequate ventilation. Comply with applicable regulations.
Storage conditions: Keep only in the original container in a cool, well ventilated place. Keep out of reach of children. Keep away from incompatible materials. Keep container closed when not in use.
Incompatible materials: Acids, soft metals, oxidizers, organic halogen compounds. Contact with some metals such as magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze may generate hydrogen. Reacts violently with acids liberating irritating gas. May evolve flammable hydrogen gas on contact with soft metals.

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

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

<table>
<thead>
<tr>
<th>Potassium hydroxide (1310-58-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA ACGIH</strong></td>
</tr>
<tr>
<td>ACGIH Ceiling (mg/m³)</td>
</tr>
<tr>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
CIP 130™
Process Cleaning 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 Protection Equipment (PPE) 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 goggles or safety glasses.
Skin and body protection: Wear suitable protective clothing. Wear rubber apron, rubber boots.
Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. (NIOSH-approved).
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
Color: Light straw
Odor: Slight chemical odor
Odor threshold: No data available
pH: 11.5 - 12.6
pH solution: 1 %
Relative evaporation rate (butyl acetate=1): No data available
Melting point: No data available
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: No data available
Density: ca. 1.1 Specific Gravity
Solubility: Water: Completely soluble
Log Pow: No data available
Log Kow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidising properties: No data available
Explosive limits: No data available.

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

No additional information available.

10.5. Incompatible materials

Acids, soft metals, oxidizers, organic halogen compounds. Contact with some metals such as magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze may generate hydrogen. Reacts violently with acids liberating irritating gas. May evolve flammable hydrogen gas on contact with soft metals.

10.6. Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Corrosive. Causes severe skin burns and serious eye damage. Spray mists are extremely irritating to mucous membranes and upper respiratory tract.

Potassium hydroxide (1310-58-3)

LD50 oral rat 214 mg/kg
ATE CLP (oral) 500,000 mg/kg bodyweight

Alcohols, C12-14-secondary, ethoxylated (84133-50-6)

LD50 oral rat 2100 mg/kg
ATE CLP (oral) 2100,000 mg/kg bodyweight

Tetrasodium EDTA (64-02-8)

LD50 oral rat 1658 mg/kg
ATE CLP (oral) 500,000 mg/kg bodyweight

Skin corrosion/irritation: Causes severe skin burns
pH: 11.5 - 12.6

Serious eye damage/irritation: Causes serious eye damage
pH: 11.5 - 12.6

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

Potential Adverse human health effects and symptoms: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Alcohols, C12-14-secondary, ethoxylated (84133-50-6)

LC50 fishes 1 3.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1 3.2 mg/l (Exposure time: 48 h - Species: water flea)
CIP 130™
Process Cleaning Detergent
Safety Data Sheet
according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

<table>
<thead>
<tr>
<th>Tetrasodium EDTA (64-02-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes 1</td>
<td>41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
<tr>
<td>EC50 other aquatic organisms 1</td>
<td>1.01 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No additional information available.

12.3. Bioaccumulative potential
CIP 130™ Process Cleaning Detergent
Bioaccumulative potential Not established.

Potassium hydroxide (1310-58-3)

| Log Pow | 0.65 |

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. Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads). High concentration in receiving water will injure aquatic life by pH effect. Do not re-use empty containers.

Additional information : Never return unused material to original container. Empty containers should be thoroughly rinsed with large quantities of clean water. Dispose of empty containers and wastes safely. Containers may be send for reconditioning, recycling. Dispose in a safe manner in accordance with local/national regulations. Small spills may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT
Transport document description : UN1814 Potassium Hydroxide Solution, 8, Corrosive, III
UN-No.(DOT) : 1814
DOT NA no. : UN1814
DOT Proper Shipping Name : Potassium Hydroxide Solution
Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT) : 8 - Corrosive

Additional information
Other information : 4 x 1 gal package not approved for air shipment.

ADR
Transport document description : No additional information available.

Transport by sea
UN1814 Potassium Hydroxide Solution, 8, Corrosive, III

Air transport
UN1814 Potassium Hydroxide Solution, 8, Corrosive, III (4 x 1 gal package not approved for air shipment)
SECTION 15: Regulatory information

15.1. US Federal regulations

CIP 130™ Process Cleaning Detergent

RQ (Reportable quantity, section 304 of EPA's List of Lists):

<table>
<thead>
<tr>
<th>Substance</th>
<th>RQ (Reportable quantity, section 304 of EPA's List of Lists)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide (1310-58-3)</td>
<td>1000 lb</td>
</tr>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td></td>
</tr>
<tr>
<td>Butanedioic acid, octenyl- (28805-58-5)</td>
<td>1000 lb</td>
</tr>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td></td>
</tr>
<tr>
<td>Alcohols, C12-14-secondary, ethoxylated (84133-50-6)</td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
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<td></td>
</tr>
</tbody>
</table>

15.3. US State regulations

Not applicable.

SECTION 16: Other information

Revision Date: 05/26/2015

Full text of H-phrases:

- Acute Tox. 3 (Oral): Acute toxicity (oral), Category 3
- Acute Tox. 4 (Oral): Acute toxicity (oral), Category 4
- Eye Dam. 1: Serious eye damage/eye irritation, Category 1
- Skin Corr. 1A: Skin corrosion/irritation Category 1A
- Skin Corr. 1C: Skin corrosion/irritation Category 1C
- Skin Irrit. 2: Skin corrosion/irritation Category 2
- H301: Toxic if swallowed
- H302: Harmful if swallowed
- H314: Causes severe skin burns and eye damage
- H315: Causes skin irritation
- H318: Causes serious eye damage

NFPA health hazard: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was 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): US

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.