

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

### 1.1. Product identifier

Product form : Mixture  
Trade name : Prolystica® Ultra Concentrate HP Alkaline Detergent  
Product code : 1C17

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

Use of the substance/mixture : Alkaline 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: 1-800-548-4873 (Customer Service-Healthcare 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. 4 (Oral) H302  
Acute Tox. 4 (Dermal) H312  
Skin Corr. 1A H314  
Eye Dam. 1 H318

### 2.2. Label elements

#### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

GHS07

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H302 - Harmful if swallowed  
H312 - Harmful in contact with skin  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
: P103 – Read label before use  
P260 - Do not breathe mist, spray, vapours  
P264 - Wash hands thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear eye protection, protective clothing, protective gloves  
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
P303+P361+P353 - IF ON SKIN (or hair): Remove 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

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Full text of H-phrases: see section 16

### 3.2. Mixture

| Name                | Product identifier | %   | GHS-US classification                              |
|---------------------|--------------------|-----|--|
| Potassium hydroxide | (CAS No) 1310-58-3 | 1-5 | Acute Tox. 3 (Oral), H302<br>Skin Corr. 1A, H314   |
| Sodium hydroxide    | (CAS No) 1310-73-2 | 1-5 | Acute Tox. 4 (Dermal), H312<br>Skin Corr. 1A, H314 |

## 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. If not breathing, give artificial respiration.

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. In all cases of doubt, or when symptoms persist, seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Give water to drink if victim completely conscious/alert. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries : Causes severe skin burns and eye damage. Corrosive to eyes, respiratory system and skin.

Symptoms/injuries after inhalation : Inhalation of mists is extremely irritating to mucous membranes and upper respiratory tract.

Symptoms/injuries after skin contact : Effects of skin contact may include: irritation and burn feeling. Contact with concentrated solution may cause serious damage to the skin.

Symptoms/injuries after eye contact : Causes serious eye damage. Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness.

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

Unsuitable extinguishing media : Do not use a heavy water stream.

### 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 : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus.

Other information : Do not mix with: chlorinated products as this could liberate toxic corrosive chlorine gas. May react with soft metals to evolve flammable hydrogen gas.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not breathe fumes, vapors. Stop leak if safe to do so. Avoid contact with skin, eyes and clothes.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing. Wear protective gloves and eye/face protection. Boots.

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

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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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect in closed containers for disposal. Local authorities should be advised if significant spillages cannot be contained. Neutralise spill carefully with any weak acid and flush remainder with plenty of water. Wash contaminated areas with large quantities of water to a sanitary sewer, if in accordance with local, state or national legislation. Do not allow to enter into surface water or drains.

### 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. Provide good ventilation in process area to prevent formation of vapour. Keep container tightly closed to avoid moisture absorption and contamination. Do not breathe gas, fumes, vapour or spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Never return unused material to original container.

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 prior to re-use. Separate working clothes from town clothes. Launder separately.

### 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 : Acids. Oxidizing agents. Organic compounds. Halogenated compounds. Chromium. Magnesium. Zinc. On contact with ordinary metals (steel, galvanized, aluminium) corrosion may occur and generate highly flammable hydrogen gas.

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

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Sodium hydroxide (1310-73-2) |                                     |                     |
|------------------------------|-------------------------------------|---------------------|
| USA ACGIH                    | ACGIH Ceiling (mg/m <sup>3</sup> )  | 2 mg/m <sup>3</sup> |
| USA OSHA                     | OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 2 mg/m <sup>3</sup> |

| Potassium hydroxide (1310-58-3) |                                    |                     |
|---------------------------------|------------------------------------|---------------------|
| USA ACGIH                       | ACGIH Ceiling (mg/m <sup>3</sup> ) | 2 mg/m <sup>3</sup> |

### 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. Local exhaust ventilation is recommended to maintain vapor level below the threshold limit value (TLV).

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, rubber or plastic gloves.

Eye protection : Safety glasses, chemical goggles or face shield.

Skin and body protection : Wear suitable protective clothing. Rubber apron, boots.

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|                                 |  |
|---------------------------------|--|
| Respiratory protection          | : Work in well-ventilated zones or use proper respiratory protection. Wear appropriate mask. |
| Environmental exposure controls | : Avoid discharge to the environment.  |
| 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                                      | : Amber.                           |
| odour                                       | : No data available                |
| Odour threshold                             | : No data available                |
| pH  | : 13.0 (concentrate)               |
| pH solution                                 | : 12.7 (1% solution)               |
| 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                |
| Vapour pressure                             | : No data available                |
| Relative vapour density at 20 °C            | : No data available                |
| Relative density                            | : No data available                |
| Density                                     | : ca. 1.3166 g/ml 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 polymerisation does not occur.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

On contact with ordinary metals (steel, galvanized, aluminium) corrosion may occur and generate highly flammable hydrogen gas. Acids. Oxidizing agent. organic materials. Halogenated compounds. Magnesium. Zinc. Chromium.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| <b>Sodium hydroxide (1310-73-2)</b> |                           |
|-------------------------------------|---------------------------|
| LD50 dermal rabbit                  | 1350 mg/kg                |
| ATE CLP (dermal)                    | 1350.000 mg/kg bodyweight |

| <b>Potassium hydroxide (1310-58-3)</b> |                          |
|--|--------------------------|
| LD50 oral rat                          | 214 mg/kg                |
| ATE CLP (oral)                         | 500.000 mg/kg bodyweight |

|   |   |
|---|---|
| Skin corrosion/irritation                           | : Causes severe skin burns and eye damage.<br>pH:13.0 (concentrate)   |
| Serious eye damage/irritation                       | : Causes serious eye damage.<br>pH:13.0 (concentrate)   |
| Respiratory or skin sensitisation                   | : Not classified<br>Based on available data, the classification criteria are not met  |
| Germ cell mutagenicity                              | : Not classified<br>Based on available data, the classification criteria are not met  |
| Carcinogenicity                                     | : Not classified<br>Based on available data, the classification criteria are not met  |
| Reproductive toxicity                               | : Not classified<br>Based on available data, the classification criteria are not met  |
| Specific target organ toxicity (single exposure)    | : Not classified<br>Based on available data, the classification criteria are not met  |
| Specific target organ toxicity (repeated exposure)  | : Not classified<br>Based on available data, the classification criteria are not met  |
| Aspiration hazard                                   | : Not classified<br>Based on available data, the classification criteria are not met  |
| Potential Adverse human health effects and symptoms | : Not classified<br>Based on available data, the classification criteria are not met.   |
| Symptoms/injuries after inhalation                  | : Inhalation of mists is extremely irritating to mucous membranes and upper respiratory tract.  |
| Symptoms/injuries after skin contact                | : Effects of skin contact may include: irritation and burn feeling. Contact with concentrated solution may cause serious damage to the skin.        |
| Symptoms/injuries after eye contact                 | : Causes serious eye damage. Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. |
| Symptoms/injuries after ingestion                   | : May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.  |

### SECTION 12: Ecological information

#### 12.1. Toxicity

| <b>Prolystica® Ultra Concentrate HP Alkaline Detergent</b> |   |
|--|---|
| LC50 fishes 1  | > 750 mg/l (Pimephales promelas) in most concentrated use dilution. |

| <b>Sodium hydroxide (1310-73-2)</b> |   |
|-------------------------------------|---|
| LC50 fishes 1                       | 45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static]) |

#### 12.2. Persistence and degradability

| <b>Prolystica® Ultra Concentrate HP Alkaline Detergent</b> |  |
|--|--|
| Persistence and degradability                              | The surfactant(s) contained in this preparation complies(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. |

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### 12.3. Bioaccumulative potential

#### Prolystica® Ultra Concentrate HP Alkaline 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.   |
| Additional information         | : Dispose of empty containers and wastes safely. Hazardous waste (corrosive) based on pH. Prevent contamination of soil, drains and surface waters. |
| Ecology - waste materials      | : Avoid release to the environment.   |

## SECTION 14: Transport information

In accordance with DOT

|   |   |
|---|---|
| Transport document description                    | : UN1814, Potassium hydroxide solution, 8, II     |
| 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                                   |



Packing group (DOT) : II - Medium Danger

### Additional information

Other information : NOT approved for air shipment.

### ADR

Transport document description : No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Prolystica® Ultra Concentrate HP Alkaline Detergent

|  |          |
|--|----------|
| RQ (Reportable quantity, section 304 of EPA's List of Lists) : | 10136 lb |
|--|----------|

#### 1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 1,2,3-Benzotriazole (95-14-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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### Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) : 1000 lb

### Potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) : 1000 lb

### Hexyl D-glucoside (54549-24-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

## 15.2. International regulations

Not applicable.

## 15.3. US State regulations

Not applicable.

## SECTION 16: Other information

Revision Date : 03/30/2015

Other information : None.

Full text of H-phrases: see section 16:

|                       |  |
|-----------------------|--|
| Acute Tox. 3 (Oral)   | Acute toxicity (oral), Category 3              |
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal) Category 4             |
| Acute Tox. 4 (Oral)   | Acute toxicity (oral), Category 4              |
| Eye Dam. 1            | Serious eye damage/eye irritation, Category 1  |
| Eye Irrit. 2A         | Serious eye damage/eye irritation, Category 2A |
| Met. Corr. 1          | Corrosive to metals, Category 1                |
| Skin Corr. 1A         | Skin corrosion/irritation Category 1A          |
| H290                  | May be corrosive to metals                     |
| H301                  | Toxic if swallowed                             |
| H302                  | Harmful if swallowed                           |
| H312                  | Harmful in contact with skin                   |
| H314                  | Causes severe skin burns and eye damage        |
| H318                  | Causes serious eye damage                      |
| H319                  | Causes serious eye irritation                  |

NFPA health hazard

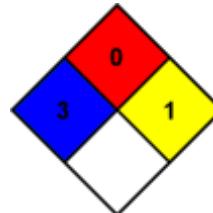
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



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.*