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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade name</td>
<td>Valsure® Alkaline Detergent</td>
</tr>
<tr>
<td>Product code</td>
<td>1C50</td>
</tr>
</tbody>
</table>

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

1.2.1. Relevant identified uses

<table>
<thead>
<tr>
<th>Industrial/Professional use spec</th>
<th>For professional use only.</th>
</tr>
</thead>
</table>

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: 1-800-548-4873 (Customer Service-Healthcare 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. 1A  H314
Eye Dam. 1    H318

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)

Signal word (CLP) : Danger

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.

Precautionary statements (CLP) : P260 - Do not breathe vapors, mist, spray.
P264 - Wash exposed areas thoroughly after handling.
P280 - Wear protective clothing, protective gloves, face protection, 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/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
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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 POISON CENTER/doctor. P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

2.3. Other hazards

Other Hazards: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

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>
</table>
| Tetrasodium EDTA            | (CAS No) 64-02-8  | 1 - 5 | Comb. Dust  
|                             | (REACH No) 01-2119486762-27-0018 |   | Acute Tox. 4 (Oral), H302  
|                             |                   |   | Acute Tox. 4 (Inhalation: mist), H332  
|                             |                   |   | Eye Dam. 1, H318  
|                             |                   |   | Aquatic Acute 2, H401  |
| Sodium hydroxide            | (CAS No) 1310-73-2 | 1 - 5 | Met. Corr. 1, H290  
|                             | (REACH No) 01-2119457892-27-0229 |   | Acute Tox. 4 (Dermal), H312  
|                             |                   |   | Skin Corr. 1A, H314  
|                             |                   |   | Eye Dam. 1, H318  
|                             |                   |   | Aquatic Acute 3, H402  |

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.

First-aid measures after inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact: Immediately flush skin with plenty of water for at least 60 minutes. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion: 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.

Symptoms/Injuries After Inhalation: Contact may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/Injuries after skin contact: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries after eye contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: None known.

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

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: A heavy water stream may spread burning liquid.

5.2. Special hazards arising from the substance or mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

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. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.


SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing. Do not allow product to spread into the environment.

6.1.1. For non-emergency personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

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

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.

Methods for cleaning up: Spills may be picked up with a mop and followed by a water rinse. Small spills may be flushed to a sanitary sewer with copious amounts of water.

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

Additional Hazards When Processed: May release corrosive vapors.

Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist. Wear recommended personal protective equipment.

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations.

Storage conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.


Special Rules on Packaging: Store in original container or corrosive resistant and/or lined container.

7.3. Specific end use(s)

Alkaline Detergent: For professional use only

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Material</th>
<th>United Kingdom</th>
<th>USA - ACGIH</th>
<th>USA - IDLH</th>
<th>USA - NIOSH</th>
<th>USA - OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (1310-73-2)</td>
<td>WEL STEL (mg/m³)</td>
<td>ACGIH Ceiling (mg/m³)</td>
<td>US IDLH (mg/m³)</td>
<td>NIOSH REL (ceiling) (mg/m³)</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
<td>10 mg/m³</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

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, especially in confined areas.
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according to Regulation (EC) No. 453/2010


Materials for Protective Clothing: Corrosion-proof clothing.
Hand protection: Wear chemically resistant protective gloves.
Eye protection: Chemical goggles or safety glasses.
Skin and body protection: Wash contaminated clothing before reuse.
Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.
Other information: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Appearance: Clear, water white to light straw homogeneous liquid
Odour: None
Odour threshold: No data available
pH: 13.1 (Neat), 11.2 - 12.2 (1% Solution)
Evaporation rate: 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
Specific Gravity: 1.0765 - 1.0865 g/mL
Solubility: Water: Completely soluble
Log Pow: 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
Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability
The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Direct sunlight, extremely high or low temperatures, open flames, sources of ignition and incompatible materials.

10.5. Incompatible materials
Strong acids. Strong oxidizers

10.6. Hazardous decomposition products
Thermal decomposition generates: Corrosive vapors.
### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**
- Not classified

- **Sodium hydroxide (1310-73-2)**
  - LD50 Dermal Rabbit: 1350 mg/kg

- **Tetrasodium EDTA (64-02-8)**
  - LD50 Oral Rat: 1780 mg/kg
  - ATE (Dust/Mist): 1.50 mg/l/4h

- **Skin corrosion/irritation**
  - Causes severe skin burns and eye damage.
    - [pH: 13.1 (Neat), 11.2 - 12.2 (1% Solution)]

- **Serious eye damage/irritation**
  - Causes serious eye damage.
    - [pH: 13.1 (Neat), 11.2 - 12.2 (1% Solution)]

- **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**
  - Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

- **Ecology – general**: Harmful to aquatic life.

- **Sodium hydroxide (1310-73-2)**
  - LC50 Fish 1: 45.4 mg/l (Exposure time: 96 h, Species: Oncorhynchus mykiss [static])
  - EC50 Daphnia 1: 40 mg/l

- **Tetrasodium EDTA (64-02-8)**
  - LC50 Fish 1: 41 mg/l (Exposure time: 96 h, Species: Lepomis macrochirus [static])
  - LC 50 Fish 2: 59.8 mg/l (Exposure time: 96 h, Species: Pimephales promelas [static])
  - ErC50 (algae): 2.77 mg/l (72hr species: Desmodesmus subspicatus)

#### 12.2. Persistence and degradability

- **Valsure® Alkaline Detergent**
  - Persistence and degradability: Not established

- **Tetrasodium EDTA (64-02-8)**
  - Bioaccumulative potential: Not established

#### 12.3. Bioaccumulative potential

- **Valsure® Alkaline Detergent**
  - 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

**Other Information**: Avoid release to the environment.

**Ecology - waste materials**: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.
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 regulated for transport

14.3. Transport hazard class(es)
Not regulated for transport

14.4. Packing group
Not regulated for transport

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
Transport category (ADR) : Non-hazardous

14.6.2. Transport by sea
IMDG Class : Non-hazardous

14.6.3. Air transport
ICAO/IATA Class : Non-hazardous

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
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 : 10/11/2018

Full text of H- and EUH-phrases:

| Acute Tox. 4 (Dermal) | Acute toxicity (dermal) Category 4 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Aquatic Acute 2 | Hazardous to the aquatic environment - Acute Hazard Category 2 |
| Aquatic Acute 3 | Hazardous to the aquatic environment - Acute Hazard Category 3 |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Met. Corr. 1 | Corrosive to metals Category 1 |
| Skin Corr. 1A | Skin corrosion/irritation Category 1A |
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H312 | Harmful in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |
| H332 | Harmful if inhaled |
Valsure® Alkaline Detergent
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according to Regulation (EC) No. 453/2010

<table>
<thead>
<tr>
<th>H401</th>
<th>Toxic to aquatic life</th>
</tr>
</thead>
<tbody>
<tr>
<td>H402</td>
<td>Harmful 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.