# Cage-Klenz® Neutral Pair Part B

## Alkaline Cage Wash Detergent

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 03/28/2014

Version: 1.0

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## 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>Cage-Klenz® Neutral Pair Part B</td>
</tr>
<tr>
<td>Product code</td>
<td>1K04</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Industrial/Professional use spec</th>
<th>For industrial use only. Not for home use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of the substance/mixture</td>
<td>Alkaline Cage Wash Detergent</td>
</tr>
</tbody>
</table>

### 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
- Acute Tox 4 (inhalation: vapor, mist): H332

### 2.2. Label elements

**GHS-US labelling**

- **Hazard pictograms (GHS-US)**
  - GHS05

- **Signal word (GHS-US)**: Danger

- **Hazard statements (GHS-US)**
  - H314 - Causes severe skin burns and eye damage
  - H318 - Causes serious eye damage
  - H332 – Harmful if inhaled

- **Precautionary statements (GHS-US)**
  - P260 - Do not breathe mist, spray, vapors
  - P264 - Wash hands thoroughly after handling
  - 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
  - P310 – Immediately call a POISON Centre or doctor/physician
  - 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

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>(CAS No) 64-02-8</td>
<td>7 - 13</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>(CAS No) 1310-58-3</td>
<td>5 - 10</td>
<td>Acute Tox. 3 (Oral), H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1A, H314</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>(CAS No) 1310-73-2</td>
<td>&lt; 0.5</td>
<td>Acute Tox. 4 (Dermal), H312</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1A, H314</td>
</tr>
</tbody>
</table>

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. Immediately get medical attention. If not breathing, give artificial respiration.

First-aid measures after skin contact: Remove immediately all contaminated clothing. Rinse skin with water. 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 milk or 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.
Symptoms/injuries after inhalation: Causes severe irritation to mucous membrane and respiratory tract.
Symptoms/injuries after skin contact: Severe skin irritant. Effects of skin contact may include: irritation and burn feeling.
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


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. For further information refer to Section 8: Exposure controls/personal protection.

Emergency procedures: Evacuate unnecessary personnel.
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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: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Neutralize spill carefully with any weak acid and flush remainder with plenty of water. Collect spillage. Store away from other materials. Local authorities should be advised if significant spillages cannot be contained. 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: Read label before use. Provide good ventilation in process area to prevent formation of vapor. Do not breathe gas, fumes, vapor 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 only in the original container in a cool, well ventilated place. Keep container closed when not in use.


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

Packaging materials: Keep only in original container.

Special rules on packaging: Correctly labeled.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>USA ACGIH</th>
<th>ACGIH (Ceiling) (mg/m³)</th>
<th>USA OSHA</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide (1310-58-3)</td>
<td></td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA ACGIH</td>
<td></td>
<td>ACGIH (Ceiling) (mg/m³)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide (1310-73-2)</td>
<td></td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA ACGIH</td>
<td></td>
<td>ACGIH (Ceiling) (mg/m³)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA OSHA</td>
<td></td>
<td>OSHA PEL (TWA) (mg/m³)</td>
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</tr>
</tbody>
</table>
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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). 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. Protective clothing. Gloves. Protective goggles.

Eye protection: Wear chemical splash goggles or face shield.
Skin and body protection: Wear suitable protective clothing. Rubber apron and rubber boots.
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
Color: Light straw yellow
Odor: Slight chemical odor
Odor threshold: No data available
pH: No data available
pH solution: 12.0 - 12.1 (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: 1.135 g/l 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 does not occur.

10.4. Conditions to avoid
No additional information available.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Causes severe skin burns and eye damage. Harmful if inhaled.

**Potassium hydroxide (1310-58-3)**
- LD50 oral rat: 214 mg/kg
- ATE (oral): 500,000 mg/kg bodyweight

**Sodium hydroxide (1310-73-2)**
- LD50 dermal rabbit: 1350 mg/kg
- ATE (dermal): 1350,000 mg/kg bodyweight

**Tetrasodium EDTA (64-02-8)**
- ATE (oral): 500,000 mg/kg bodyweight

Skin corrosion/irritation: Causes severe skin burns
- pH: > 12.1

Serious eye damage/irritation: Causes serious eye damage
- pH: > 12.1

Respiratory or skin sensitisation: Causes severe irritation to mucous membranes and respiratory tract
- (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)

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

12.1. Toxicity

**Sodium hydroxide (1310-73-2)**
- LC50 fishes 1: 45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
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Tetrasodium EDTA (64-02-8)

| LC50 fishes 1 | 41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) |
| EC50 Daphnia 1 | 610 mg/l (Exposure time: 24 h - Species: Daphnia magna) |
| EC50 other aquatic organisms 1 | 1.01 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus) |
| LC50 fish 2 | 59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |

12.2. Persistence and degradability
No additional information available.

12.3. Bioaccumulative potential

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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. Empty containers should be rinsed and discarded in a waste container or offered for recycling if possible. Small spills may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state, or national legislation. Do not re-use empty containers. Ensure all national/local regulations are observed. For additional guidance, contact the State Water or Regional office of the EPA.

Additional information: Dispose of empty containers and wastes safely. Unused product may be a hazardous waste (corrosive) based on pH.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description: UN 1814 Potassium Hydroxide Solution, 8, Corrosive, PG II
UN-No.(DOT): 1814
DOT NA no.: UN 1814
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: No supplementary information available.

Special transport precautions: 4 x 1 gal package not approved for air shipment. Road/Rail: ADR/RID Class: UN 1814, Potassium Hydroxide Solution, 8, 42(b) ADR.

ADR

Transport document description: No additional information available

Transport by sea

IMDG Class: UN 1814 Potassium Hydroxide Solution, 8, Corrosive, PG II
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**Air transport**

ICAO/IATA Class: UN 1814 Potassium Hydroxide Solution, 8, Corrosive, PG II

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**SECTION 15: Regulatory information**

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide (1310-58-3)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Sodium hydroxide (1310-73-2)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Tetrasodium EDTA (64-02-8)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2.2. National regulations

No additional information available.

15.3. US State regulations

No additional information available.

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**SECTION 16: Other information**

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-phrases:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Oral)</td>
<td>Acute toxicity (oral), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 4 (Dermal)</td>
<td>Acute toxicity (dermal) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion/irritation Category 1A</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</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>H332</td>
<td>Harmful if inhaled</td>
</tr>
</tbody>
</table>

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.

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SDS US (GHS HazCom 2012)

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