

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

1.1. Product identifier

Product form : Mixture
 Trade name : Cage-Klenz[®] Neutral Pair Part B
 Product code : 1K04

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

Industrial/Professional use spec : For industrial use only. Not for home use.
 Use of the substance/mixture : Alkaline Cage Wash 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
 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

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

Suitable extinguishing media	: Use extinguishing media appropriate for the primary source of fire. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
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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.
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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.
- 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.
- 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

Potassium hydroxide (1310-58-3)		
USA ACGIH	ACGIH (Ceiling) (mg/m ³)	2 mg/m ³

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

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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.



- Hand protection : Wear protective gloves. Rubber gloves.
- 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.

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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

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.

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

Cage-Klenz® Neutral Pair Part B – Alkaline Cage Wash 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. 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

Other 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

SECTION 15: Regulatory information

15.1. US Federal regulations

Potassium hydroxide (1310-58-3)

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

Sodium hydroxide (1310-73-2)

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

Tetrasodium EDTA (64-02-8)

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

15.2.2. National regulations

No additional information available.

15.3. US State regulations

No additional information available.

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:

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
Skin Corr. 1A	Skin corrosion/irritation Category 1A
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
H332	Harmful if inhaled

NFPA health hazard

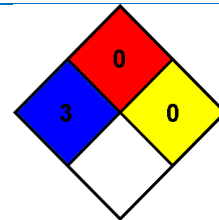
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

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)

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