

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

1.1. Product identifier

Product form : Mixture
Trade name : Cage-Klenz[®] 250 – Acid-Based Cage Wash Detergent
Product code : 1K25

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

Use of the substance/mixture : Acid-Based Cage Wash Detergent
Use of the substance/mixture : Product for industrial and institutional use only. Not for home use.

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

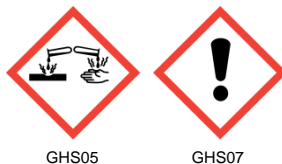
Metal Corr. 1 H290
Skin Corr. 2 H315
Eye Irrit. 2A H319

Full text of H-phrases: see Section 16.

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H290 - May be corrosive to metals.
H315 – Causes skin irritation.
H319 - Causes serious eye irritation.
Precautionary statements (GHS-US) : P234 - Keep only in original container.
P264 - Wash hands thoroughly after handling.
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 - If skin irritation occurs: Get medical attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash 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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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Citric acid	(CAS No) 77-92-9 (REACH No) 01-2119457026-42-0067	10 - 30	Eye Irrit. 2A, H319

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. 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. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical advice.
First-aid measures after ingestion	: If victim completely conscious/alert. Rinse mouth. Do NOT induce vomiting. Get medical advice/attention. Give water or milk if the person is fully conscious.

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

Symptoms/injuries after inhalation	: In fine dispersion/spraying/misting: Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

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

Hazardous decomposition products in case of fire : Thermal decomposition generates: Fume. Carbon monoxide. Carbon dioxide.

5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire.
Protective equipment for firefighters	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus.

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. If spilled, may cause the floor to be slippery.

6.1.1. For non-emergency personnel

Protective equipment : Use personal protective equipment as required. For further information refer to Section 8: "Exposure controls/personal protection".

Emergency procedures : Stop leak if safe to do so. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

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 : Comply with applicable local, national and international regulation. Spills may be picked up with a mop and followed by a water rinse. Residue may be washed down with water. Small spills may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation.

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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. Keep containers closed. Avoid all eye and skin contact and do not breathe vapour and mist. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Hygiene measures : Take care for general good hygiene and housekeeping. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Provide adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.
- Storage conditions : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
- Incompatible materials : Strong oxidizing agents. Strong alkalis. Aluminium.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available.

8.2. Exposure controls

- Appropriate engineering controls : Provide local exhaust or general room ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- 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 rubber gloves.
- Eye protection : Wear chemical goggles or safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear
- Colour : Clear to light straw
- Odour : Mild chemical odor
- Odour threshold : No data available
- pH : No data available
- pH solution : 2.4 - 2.8 (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

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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	: 1.14 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 polymerization will not occur.

10.4. Conditions to avoid

Will corrode copper, zinc, aluminum, or their alloys in high concentrations.

10.5. Incompatible materials

Strong oxidizers. Strong alkalis. Aluminium.

10.6. Hazardous decomposition products

Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified Based on available data, the classification criteria are not met.
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LD50 oral rat	> 5000 mg/kg
Skin corrosion/irritation	: Causes skin irritation pH: < 2.4
Serious eye damage/irritation	: Causes serious eye irritation pH: < 2.4
Respiratory or skin sensitisation	: Not classified 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

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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.
Symptoms/injuries after inhalation	: In fine dispersion/spraying/misting: Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Cage-Klenz® 250 – Acid-Based Cage Wash Detergent

LC50 fishes 1	10% v/v solution: LC50 (fathead minnows) > 750 mg/ml
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Citric acid (77-92-9)

LC50 fishes 1	1516 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
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12.2. Persistence and degradability

Cage-Klenz® 250 – Acid-Based Cage Wash Detergent

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

Cage-Klenz® 250 – Acid-Based Cage Wash Detergent

Bioaccumulative potential	Not established.
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Citric acid (77-92-9)

Log Pow	-1.72 (at 20 °C)
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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 re-use empty containers. Small spills may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation. Waste must be disposed of in accordance with federal, state, and local environmental control regulations. Ensure all national/local regulations are observed.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description	: UN3265 Corrosive liquid, acidic, organic, n.o.s. (Citric Acid Solution), 8, III
UN-No.(DOT)	: 3265
DOT NA no.	: UN3265
DOT Proper Shipping Name	: Corrosive liquid, acidic, organic, n.o.s.
Department of Transportation (DOT) Hazard Classes	: 8 - Class 8 - Corrosive material 49 CFR 173.136

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Hazard labels (DOT) : 8 - Corrosive



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger

Additional information

Other information : No supplementary information available.

ADR

Transport document description : No additional information available.

Transport by sea

No additional information available.

Air transport

4x1 gal. package, not approved for air shipment.

SECTION 15: Regulatory information

15.1. US Federal regulations

Citric acid (77-92-9)

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 : 10/24/2018

Other information : None

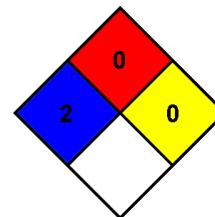
Full text of H-phrases:

Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Met. Corr. 1	Corrosive to metals, Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
H290	May be corrosive to metals
H315	Causes skin irritation
H319	Causes serious eye irritation

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is 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)

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.