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KLEN 899
Organic Descaler

Product Description
KLEN 899 is a highly effective organic deposit remover. The product does not cause corrosion cracking in stainless steel and is safe on metals such as mild steel, copper alloys, aluminum and zinc during cleaning operations.

KLEN 899 is specially formulated for stainless steel and galvanized equipment whereby use of hydrochloric acid may cause stress corrosion cracking.

Areas of Use
Use on all water treatment systems consisting of stainless steel or galvanized steel.

Special Features
- Mild acid for safe yet effective de-scaling.
- High concentration for economical use.

Directions for Use
- Dilute ***KLEN 899*** with water in portion 1:10 or 1:20 depending on severity of organic deposit.
- Circulate solution through equipment to be cleaned for about 2 to 4 hours. Clear colour changes to greenish when acid is exhausted. However, change may be masked by coloration due to iron oxides, organic matter and copper that may be present in water.
- Carbon dioxide and hydrogen may be released during descaling process. Thus, ensure ventilation and avoid open flames.

Precautions
Corrosive liquid! A pair of suitable gloves should be worn when using product. Ingestion and eye contact is to be avoided. Wash affected areas with plenty of water.

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Company Registration No: 197100402R

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: KLEN 899

Other means of identification: Organic Descaler

Date of SDS: 01 January 2026

Recommended use and restriction on use: use on all water treatment systems consisting of stainless steel or galvanized steel.

Supplier: Klenco (Singapore) Pte Ltd.
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SECTION 2 - HAZARDS IDENTIFICATION

GHS classification: Acute toxicity: Oral: Category 3;
Skin corrosion: Category 1; Eye damage: Category 1

GHS label elements: Pictogram: Signal word: Danger

Hazard statements: H301: Toxic if swallowed.
H314: Causes skin burns & eye damage.

Precaution statements: P233: Keep container tightly closed.
P280: Wear protective gloves and clothing.

SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identification	Component & Composition	Chemical Formula	CAS NO.	EC NO.
Citric Acid	< 50.0 %	C6H8O	77-92-9	201-069-1
Water	>50.0 %	H_2O	7732-18-5	231-791-2

SECTION 4 – FIRST AID MEASURES

Inhalation: Move to area of fresh air. If breathing has stopped, artificial respiration should be started. Oxygen may be administered if available. Call a physician. Never give anything by mouth to an unconscious person.

Skin contact: Wash with large amounts of soap and water. If irritation persists, consult a physician.

Eye contact: Flush with cool water for at least 15 minutes. Then consult a physician immediately.

Ingestion: Induce vomiting. Dilute by drinking water. Call a physician immediately.

Notes to Physicians: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable fire-extinguishing media: Water, dry chemical, fog and foam.

Specific hazards arising from the chemical: Burning can produce carbon dioxide and/or carbon monoxide.

Special protective actions for fire fighters: Fire fighters may be exposed to the products of combustion should wear a self-contained breathing apparatus with full protective equipment.

SECTION 6 - ACCIDENTIAL RELEASE MEASURE

Personal precautions, protective equipment, and emergency measures: Use proper protective equipment (chemical protection suit, gloves, goggles, mask, etc).

Environmental precautions: Chemical substances should not be released into the environment (water, soil).

Methods and materials for containment and cleaning up: Safely stop discharge. Contain material, as necessary, with dike or barrier. Stop material from contaminating soil or from entering sewers or bodies of water. Provide optimum ventilation. Cover spills with absorbent clay, sawdust, inert material, soda ash, slaked lime and place in closed chemical waste containers. Dispose of according to applicable local, state and federal regulations.

SECTION 7 - HANDLING AND STORAGE

Precaution for safe handling: Handle all containers carefully. Do not throw or roll on the ground to prevent damage to containers. No other special precautions are needed for this product, as it is a mixture. Follow good manufacturing and handling practices. Wash thoroughly after handling, especially before eating and drinking, Wash contaminated goggles, face-shield, and gloves. Launder contaminated clothing before re-using.

Conditions for safe storage, including any incompatibilities: This product is a corrosive liquid. Store in a cool, dry, well-ventilated area at room temperature. Keep away from strong alkalis and oxidizing agents, especially chlorine releasing agents. Do not re-use empty containers for food, clothing or products for human or animal consumption or where skin contact can occur.

SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters/ Occupational exposure limits: **ACGIH - TLV:** Provide suitable personal protective equipment.

Appropriate engineering control measures: Normal ventilation is sufficient

Personal Protection: Safety glasses / goggles may be worn if splashing is anticipated

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour:	Clear white liquid with no distinct odour.
Solubility in water:	Complete.
Boiling Point:	104 ^{0} C
Specific Gravity:	1.20 +/- 0.01 g/cm^{3}
PH:	1.5 +/- 0.5
Flash Point (T.C.C.):	None to boiling **Flammable Limits - Upper:** Not applicable **Lower:** Not applicable
Vapour Pressure:	16 mm Hg @ 20 deg C
Vapour Density:	0.62 (Air = 1)

SECTION 10 - STABILITY AND REACTIVITY

Reactivity/ In compatible materials: Strong Alkalis and Oxidizing materials.

Chemical stability: Stable under normal temperature and pressure.

Possibility of hazardous reaction: Will not occur.

Condition to avoid: Not applicable

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity: Oral: Ingestion of high amount of product may be toxic.
Skin or eye irritation: This product contains Acidic material that will cause burns and irritation to eyes and/or skin.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity: Concentrations with a pH value of 6.0 or lower, especially in fresh water, may be fatal to fish and other aquatic organisms. It can cause damage to aquatic plants and vegetation.

Persistence and degradability: Product degrades readily by reaction of carbon dioxide in the air as well as decomposition by microorganism.

Bioaccumulative potential: It is soluble in water and does not bio-accumulate.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal method: Dispose of in an approved waste facility according to local regulations. It is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: (1) Re-cycle or rework if feasible (2) Incinerate at an authorized facility (3) Treat at an acceptable waste treatment facility.

SECTION 14 – TRANSPORT INFORMATION

This material is non-regulated and no special requirement is necessary.
HS Code: 34024290

SECTION 15 – REGULATORY INFORMATION

International regulation:

Classification:	This product contains Citric Acid as an ingredient that is classified as Hazardous under EC Classification.	
Risk phrases:	R28	Very toxic if swallowed
	R34	Causes burns
Safety phrases:	S07	Keep container tightly closed
	S18	Handle and open container with care
	S50	Do not mix with oxidizing materials

SECTION 16 – OTHER INFORMATION

Hazard Rating: HMIS (Hazardous Materials Information System)
HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 1
0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Extreme

NOTICE: SDS is correct at date of publication. It is not necessarily fully adequate for every circumstance, nor to be confused with or followed in violation of applicable laws or insurance requirements. Health hazards and effects of over-exposure apply only to negligent handling or misuse of product in its concentrated form (as supplied); and not routine exposure to diluted product under normal use. No warranty, express or implied, of merchantability, fitness or accuracy of data is made; as such the vendor assumes no responsibility for injury or damages resulting from use of this product.