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KLEN 2103
Alkaline Condenser Coil Cleaner

Product Description

KLEN 2103 is a specially formulated alkaline condenser and evaporator coil renovator that cleans and restores its peak efficiency. It breaks up industrial air-borne particles, dirt, oil and grime quickly and leaves no harmful residue, non-corrosive, thus eliminating frequent breakdowns and costly parts replacement.

Areas of Use

KLEN 2103 can be used in air conditioning servicing and repair shops, food processing and cold storage plants, hotels, hospitals, industrial plants and any establishment that maintains or services air conditioning equipment or system.

Special Features

- Specially formulated to allow quick action on air borne particles, dirt, oil, and grime.
- Prolongs equipment life with its non-corrosive formula.
- Economical as it is dilutable up to 6 parts of water, depending on buildup of corrosion and soil.
- Acid-free, fireproof and totally safe on most metals.

Directions for Use

- Dilute ***KLEN 2103*** with 2 parts of water in a low-pressure sprayer.
- Turn off unit then hose down condenser coil with water.
- Start from top of coil and work downward with coarse stream of ***KLEN 2103***.
- Allow a few minutes to penetrate. Then rinse the soil with water and return the system to service.
- Repeat application if necessary.

Note: For initial cleaning, full strength is recommended.

Precautions

Avoid inhalation, ingestion and eye contact. If inhaled, move to area of fresh air and administer artificial respiration or oxygen if breathing stopped. If ingested, do not induce vomiting, dilute by drinking water and consult physician immediately. Upon contact with eyes, flush with cool water for at least 15 minutes and consult physician immediately. Upon contact with skin, wash with large amounts of soap and water and consult physician if irritation persists.

KLENCO (SINGAPORE) PTE LTD
18 Gul Crescent, Singapore 629527 ● Tel: +65 6862 3388 ● Fax: +65 6861 7575 ● info@klenco-asia.com ● www.klenco-asia.com
Company Registration No: 197100402R

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: KLEN 2103

Other means of identification: Alkaline Condenser Coil Cleaner

Date of SDS: 01 January 2024

Recommended use and restriction on use: KLEN 2103 can be used in air condition servicing and repair shops, food processing and cold storage plants, hotels, hospitals, industrial plants and any establishment that maintains or services air conditioning equipment or system.

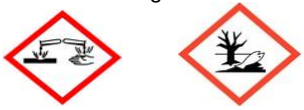
Supplier: Klenco (Singapore) Pte Ltd.
Address: 18 Gul Crescent, Singapore 629527
Department: Chemical
Person in Charge: Chemist

Phone: (65) 6862 3388
Fax: (65) 6861 7575
Email: info@klenco-asia.com
Emergency contact: (65) 6862 3388 Ext 249

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: H314: Causes skin burns and eye damage.
H411: Toxic to aquatic life with long lasting effects

Precaution statements: P233: Keep container tightly closed.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identification	Component & Composition	Chemical Formula	CAS NO.	EC NO.
Sodium Hydroxide	< 10.0 %	NaOH	1310-73-2	215-185-5
Dipropylene Glycol Monomethyl Ether	< 1.0 %	CH3O[CH2CH(CH3)O]2H	34590-94-8	252-104-2
Sodium Metasilicate	< 1.0%	Na2SiO3	6834-92-0	229-912-9
Nonyl Phenol Ethoxylate	< 2.0 %	$C_{33}H_{60}O_{10}$	26571-11-9	247-816-5
Sodium EDTA	< 4.0 %	$C_{10}H_{12}N_2Na_4O_8$	64-02-8	200-573-9
Water	> 80.0 %	H2O	7732-18-5	231-791-2
Terpene Alcohol	< 1.0 %	C10H18O	8000-41-7	227-813-5
Ethoxylate Alcohol Phosphate Ester	< 2.0 %	OP(OR)(OR')(OR'')	68130-47-2	614-291-2

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 Fog, Dry Chemical, Foam and CO2

Specific hazards arising from the chemical: Burning can produce carbon dioxide, carbon monoxide and traces of nitrogen oxides.

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 substance 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.
Cover spills with absorbent clay, sawdust or inert material 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: Wash thoroughly after handling, especially before eating and drinking, Wash contaminated goggles, face-shield, and gloves. Launder contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities: Store in cool, dry, well-ventilated area at room temperature. Keep away from any possible source of ignition. Store away from any oxidizing materials.
Do not re-use empty container 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 and/or ventilation to maintain exposure below TLV levels.
Appropriate engineering control measures:	Local exhaust ventilation is usually required, when vapours, mist, or dusts can be released.
Personal Protection:	Use the protective equipment such as rubber/PVC gloves; protective glasses.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour:	Clear amber liquid with citrus Odour.
Solubility in water:	Complete.
Boiling Point:	100 ^{0} C
Specific Gravity:	1.100 +/- 0.005 g/cm^3
PH:	13.0 +/- 1.0
Flash Point (T.C.C.):	None to boiling **Flammable Limits - Upper:** Not applicable **Lower:** Not applicable
Vapour Pressure:	Not determined
Vapour Density:	Not determined

SECTION 10 - STABILITY AND REACTIVITY

Reactivity/ In compatible materials:	Strong acids 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 is fatal.
Skin or eye irritation:	This product contains Sodium Hydroxide solution that may cause intense irritation to eyes and burn of skin.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity:	Concentrations with a pH value of 10.5 or greater, especially in fresh water may be fatal to fish and other aquatic organism. 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

UN No. 2922; Class: 8; Packing Group. III

HS Code: 34024290

SECTION 15 – REGULATORY INFORMATION

International regulation:

Classification:	This product contains Sodium Hydroxide as an ingredient that is classified as Corrosive 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.