

## **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 airborne 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 coil 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.

# SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION

<b>Product Identifier:</b> KLEN 2103  <b>Other means of identification:</b> Alkaline Condenser Coil Cleaner <b>Date of SDS:</b> 01 January 2026 <b>Recommended use and restriction on use:</b> 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.	<b>Supplier:</b> Klenco (Singapore) Pte Ltd. <b>Address:</b> 18 Gul Crescent, Singapore 629527 <b>Department:</b> Chemical <b>Person in Charge:</b> Chemist  <b>Phone:</b> (65) 6862 3388 <b>Fax:</b> (65) 6861 7575 <b>Email:</b> info@klenco-asia.com <b>Emergency contact:</b> (65) 6862 3388 Ext 249
--	--

## SECTION 2 - HAZARDS IDENTIFICATION

<b>GHS classification:</b> Acute toxicity: Oral: Category 3; Skin corrosion: Category 1; Eye damage: Category 1 <b>GHS label elements:</b> Pictogram:   Signal word: Danger
<b>Hazard statements:</b> H314: Causes skin burns and eye damage. H411: Toxic to aquatic life with long lasting effects
<b>Precaution statements:</b> 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 %	CH <sub>3</sub> O[CH <sub>2</sub> CH(CH <sub>3</sub> )O] <sub>2</sub> H	34590-94-8	252-104-2
Sodium Metasilicate	< 1.0%	Na <sub>2</sub> SiO <sub>3</sub>	6834-92-0	229-912-9
Nonyl Phenol Ethoxylate	< 2.0 %	C <sub>33</sub> H <sub>60</sub> O <sub>10</sub>	26571-11-9	247-816-5
Sodium EDTA	< 4.0 %	C <sub>10</sub> H <sub>12</sub> N <sub>2</sub> Na <sub>4</sub> O <sub>8</sub>	64-02-8	200-573-9
Water	> 80.0 %	H <sub>2</sub> O	7732-18-5	231-791-2
Terpene Alcohol	< 1.0 %	C <sub>10</sub> H <sub>18</sub> O	8000-41-7	227-813-5
Ethoxylate Alcohol	< 2.0 %	OP(OR)(OR')(OR'')	68130-47-2	614-291-2
Phosphate Ester				

## SECTION 4 – FIRST AID MEASURES

<b>Inhalation:</b> 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.
<b>Skin contact:</b> Wash with large amounts of soap and water. If irritation persists, consult a physician.
<b>Eye contact:</b> Flush with cool water for at least 15 minutes. Then consult a physician immediately.
<b>Ingestion:</b> Induce vomiting. Dilute by drinking water. Call a physician immediately.
<b>Notes to Physicians:</b> Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

## SECTION 5 – FIRE-FIGHTING MEASURES

<b>Suitable fire-extinguishing media:</b> Water Fog, Dry Chemical, Foam and CO <sub>2</sub>
<b>Specific hazards arising from the chemical:</b> Burning can produce carbon dioxide, carbon monoxide and traces of nitrogen oxides.
<b>Special protective actions for fire fighters:</b> Fire fighters may be exposed to the products of combustion should wear a self-contained breathing apparatus with full protective equipment.

## SECTION 6 - ACCIDENTAL RELEASE MEASURE

<b>Personal precautions, protective equipment, and emergency measures:</b> Use proper protective equipment (chemical protection suit, gloves, goggles, mask, etc).
<b>Environmental precautions:</b> Chemical substances should not be released into the environment (water, soil).
<b>Methods and materials for containment and cleaning up:</b> 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 placed in closed chemical waste containers. Dispose of according to applicable local, state and federal regulations.

## SECTION 7 - HANDLING AND STORAGE

<b>Precaution for safe handling:</b> Wash thoroughly after handling, especially before eating and drinking. Wash contaminated goggles, face-shield, and gloves. Launder contaminated clothing before re-using.
<b>Conditions for safe storage, including any incompatibilities:</b> 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 containers for food, clothing or products for human or animal consumption or where skin contact can occur.

<b>SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION</b>				
<b>Control parameters/ Occupational exposure limits:</b>		ACGIH - TLV: Provide suitable personal protective equipment and/or ventilation to maintain exposure below TLV levels.		
<b>Appropriate engineering control measures:</b> Local exhaust ventilation is usually required, when vapours, mist, or dusts can be released.				
<b>Personal Protection:</b> Use protective equipment such as rubber/PVC gloves; protective glasses.				
<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>				
<b>Appearance &amp; Odour:</b>	Clear amber liquid with citrus Odour.			
<b>Solubility in water:</b>	Complete.			
<b>Boiling Point:</b>	100 °C			
<b>Specific Gravity:</b>	1.100 +/- 0.005 g/cm <sup>3</sup>			
<b>pH:</b>	13.0 +/- 1.0			
<b>Flash Point (T.C.C.):</b>	None to boiling	<b>Flammable Limits - Upper:</b> Not applicable <b>Lower:</b> Not applicable		
<b>Vapour Pressure:</b>	Not determined			
<b>Vapour Density:</b>	Not determined			
<b>SECTION 10 - STABILITY AND REACTIVITY</b>				
<b>Reactivity/ In compatible materials:</b> Strong acids and oxidizing materials.				
<b>Chemical stability:</b> Stable under normal temperature and pressure.				
<b>Possibility of hazardous reaction:</b> Will not occur.				
<b>Condition to avoid:</b> Not applicable				
<b>SECTION 11 – TOXICOLOGICAL INFORMATION</b>				
<b>Acute toxicity: Oral:</b>	Ingestion of high amount of product is fatal.			
<b>Skin or eye irritation:</b> This product contains Sodium Hydroxide solution that may cause intense irritation to eyes and burn of skin.				
<b>SECTION 12 – ECOLOGICAL INFORMATION</b>				
<b>Toxicity:</b>	Concentrations with a pH value of 10.5 or greater, especially in fresh water, may be fatal to fish and other aquatic organisms. It can cause damage to aquatic plants and vegetation.			
<b>Persistence and degradability:</b>	Product degrades readily by reaction of carbon dioxide in the air as well as decomposition by microorganism.			
<b>Bioaccumulative potential:</b>	It is soluble in water and does not bio-accumulate.			
<b>SECTION 13 – DISPOSAL CONSIDERATIONS</b>				
<b>Disposal method:</b> 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.				
<b>SECTION 14 – TRANSPORT INFORMATION</b>				
UN No. 2922; Class: 8; Packing Group. III Corrosive Liquid, Toxic, N.O.S. HS Code: 34024290				
<b>SECTION 15 – REGULATORY INFORMATION</b>				
<b>International regulation:</b> 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.				
<b>SECTION 16 – OTHER INFORMATION</b>				
<b>Hazard Rating: HMIS (Hazardous Materials Information System)</b> <b>HEALTH:</b> 1 <b>FLAMMABILITY:</b> 0 <b>REACTIVITY:</b> 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.