



better products for a cleaner environment

KLEN 2102

Self Rinsing Chiller Coil Cleaner

Product Description

KLEN 2102 is a self-rinsing coil renovator that cleans and restores chiller coils and fins to maximum cooling capacity through natural condensation. It is non-corrosive and does not harm chiller coil and fins, thus cutting down expensive repair costs and prolonging equipment life. **KLEN 2102** is non flammable and does not produce toxic vapour and causes no health or fire hazards. **KLEN 2102** can also be used as a filter cleaning or filter coating.

Areas of Use

KLEN 2102 can be used for air-condition service and in workshops, food processing areas, storage plants and buildings with fan coil cooling systems. It can also be used as a filter cleaner or in concentration, used as a filter coating.

Special Features

- Self rinsing. Cleans chiller coil through natural condensation. Breaks up stain and atmospheric dirt bonded to chiller coil and fins and floats them down to condenser pan.
- Economical. Properly cleaned chiller coil increases cooling efficiency for minimum power consumption. Non corrosive, thus leaves no harmful residue, eliminating frequent breakdowns or costly replacement.
- Safe. Non flammable and does not contain any acid or special precaution to use or store.
- Gives off pleasant perfume when I use.

Directions for Use

- Use as it is or dilute at rate 3:5. Pour water into sprayer container before **KLEN 2102**.
- Switch off air-conditioner unit, spray directly from top onto cooling coil and fin area.
- Switch on air-conditioner unit, **KLEN 2102** will, through natural condensation, loosen dirty soil and float dirt onto condensation tray within minutes.
- Clean and coat filter. Dip filter into container to clean and rinse away **KLEN 2102** and dirty particles with water. Spray concentrated **KLEN 2102** on both sides of cleaned filter to form meshwork that traps tiny atmospheric particles from passing through filter.

Precautions

Avoid ingestion and eye contact. If in contact with eyes, flush with cool water for at least 15 minutes and consult a physician immediately. If ingested, do not induce vomiting and dilute by drinking water 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


Singapore • China • Malaysia • Thailand • ASEAN • South Asia

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: KLEN 2102	Supplier: Klenco (Singapore) Pte Ltd. Address: 18 Gul Crescent, Singapore 629527 Department: Chemical Person in Charge: Chemist
Other means of identification: Self Rinsing Chiller Coil Cleaner	Phone: (65) 6862 3388 Fax: (65) 6861 7575 Email: www.klenco-asia.com Emergency contact: (65) 6862 3388
Date of SDS: 1 January 2014	
Recommended use and restriction on use: KLEN 2102 can be used for air-condition service and in workshops, food processing areas, storage plants and buildings with fan coil cooling systems. It can also be used as a filter cleaner or in concentration, used as a filter coating.	

SECTION 2 - HAZARDS IDENTIFICATION

GHS classification: Acute toxicity: Oral: Category 4;
Skin irritation: Category 2; Eye irritation: Category 2
GHS label elements: Pictogram:  Signal word: Warning

Hazard statements: H320: Causes eye irritation
Precaution statements: P102: Keep out of reach of children.
P233: Keep container tightly closed.
P262: Do not get in eyes.

SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identification	Component & Composition	Chemical Formula	CAS NO.	EC NO.
Tetrapotassium pyrophosphate	< 4.0 %	K4O7P4	7320-34-5	230-785-7
Alkyl diamine oxide	< 2.0 %	C ₁₅ H ₃₃ NO	70592-80-2	274-687-2
Nonyl phenol Ethoxylate	< 2.0 %	C ₃₃ H ₆₀ O ₁₀	26571-11-9	247-816-5
Dipropylene Glycol Monomethyl ether	< 2.0 %	CH ₃ O[CH ₂ CH(CH ₃)O] ₂ H	34590-94-8	252-104-2
Hydroxyethyl Cellulose	< 1.0 %	C ₂ H ₆ O ₂ · x	9004-62-0	NA
Water	> 85.0 %	H ₂ O	7732-18-5	231-791-2
Perfume	< 0.2 %	Mixture	NA	NA
Red dye	< 0.01 %	-	NA	NA

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, carbon dioxide and foam.
Specific hazards arising from the chemical: Burning can produce carbon dioxide, 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 - ACCIDENTAL RELEASE MEASURE

Personal precautions, protective equipment, and emergency measure: 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. 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:	Normal ventilation is sufficient.
Personal Protection:	Use the protective equipment such as rubber/PVC gloves; protective glasses if splashing is anticipated.
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES	
Appearance & Odour:	Clear red liquid with pleasant scent.
Solubility in water:	Complete.
Boiling Point:	100 °C
Specific Gravity:	1.030 +/- 0.005 g/cm ³
PH:	10.0 +/- 0.3
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 & oxidizers. Chlorinated detergents and sanitizers.
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:	This product has low levels of toxicity.
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 off 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.	
SECTION 15 – REGULATORY INFORMATION	
International regulation:	
Classification:	This product is not classified.
Risk phrases:	R36 Irritating to eyes
Safety phrases:	S02 Keep out of reach of children
	S07 Keep container tightly closed
	S25 Avoid contact with eyes
SECTION 16 – OTHER INFORMATION	
Hazard Rating: HMIS (Hazardous Materials Information System)	
HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	0
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.