



better products for a cleaner environment

KLEN 1801

Rust Converter

Product Description

KLEN 1801 contains complexing agents for iron ions, which converts rust into a stable iron compound. The stable iron ions, formed by the catalytic action of a small quantity of weak organic acid, guarantees good adhesive for paint. **KLEN 1801** cuts down costly blasting work or other messy pre-treatment method. It is very safe and non-flammable, non-toxic, easy to handle and requires no special precaution to store or use.

Areas of Use

KLEN 1801 replaces conventional ways of treating rusty metal surface for re-coating, found in maintenance and repair work shop in manufacturing plants, factories, high-rise building complexes, ship building and repair yards etc.

Special Features

- Effective, easy and safe to use- Brush or spray **KLEN 1801** on rusty area and the rust is transformed into protective coating within seconds. It does not give off any toxic gases and can be stored or used without special precautions.
- Cause no skin irritation- **KLEN 1801** does not cause skin irritation. However, good Ventilation is necessary when using it in certain cases.
- Safer for welding job- **KLEN 1801** is non flammable. Welding joints have to be immediately protected against rust damage.
- Cutting cost- **KLEN 1801** demands minimum pre-treatment for rust protection. Scrape or brush away old loose paints, rust flakes and glow shells. Apply 2 layers of **KLEN 1801** within 24 hours for heavy rusty area. This eliminates costly blasting work.
- Versatile- **KLEN 1801** catalytic action converts rust within seconds, forming a dry and hard glossy black layer to prevent further rusting. It acts as a primer, ready for surface coating or painting.

Directions for Use

- Shake contents for a few minutes before use. **KLEN 1801**, before brushing or spraying on, can be applied directly on rusty surface after grease, oil, paint or loose rust is removed.

Heavy rust metal: Scrub with steel brush and remove all porous and loose rust before applying **KLEN 1801**. / Slight rust: Only sweep off the loose rust. / Blank steel: Degrease thoroughly with **KLEN 1103** removing all waxy residue. / Old paint (spot repair): When under-rusted, remove old paints by **KLEN 1301**, rinse clean with water, and wipe dry before applying **KLEN 1801**.

Precautions

As with all chemical products, avoid ingestion and eye contact. Wash hands thoroughly with soap and water after use.

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION				
Product Identifier: KLEN 1801		Supplier: Klenco (Singapore) Pte Ltd. Address: 18 Gul Crescent, Singapore 629527 Department: Chemical Person in Charge: Chemist		
Other means of identification: Rust Converter		Phone: (65) 6862 3388 Fax: (65) 6861 7575 Email: www.klenco-asia.com Emergency contact: (65) 6862 3388		
Date of SDS: 1 January 2016		Recommended use and restriction on use: KLEN 1801 replaces conventional ways of treating rusty metal surface for re-coating, found in maintenance and repair work shop in manufacturing plants, factories, high-rise building complexes, ship building and repair yards etc.		
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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: H302: Harmful if swallowed H315: Causes skin irritation 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.
Dipropylene Glycol Methyl Ether	< 5.0 %	C7H16O3	34590-94-8	252-104-2
Acrylic polymer emulsion	< 4.0 %	Mixture	NA	NA
Polyvinylidene Chlorinated Acrylic polymer	> 60.0%	Mixture	65045-76-3	NA
Silicone oil emulsion	< 0.01 %	Mixture	NA	NA
Gallic acid	< 2.0 %	C7H6O5	149-91-7	205-749-9
Water	> 15.0 %	H ₂ O	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: Hydrogen chloride fumes can be produced in unlikely event that water is removed from the product and the polymer burnt.				
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 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. Provide optimum ventilation. 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: This product is a corrosive liquid. Store in cool, dry, well ventilated area at room temperature. Keep away from strong alkalis and oxidizing agents especially chlorine releasing agents. Handle all containers carefully. Do not throw or roll on the ground to prevent damage to containers. 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 when vapors, 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:	Milky white emulsion with characteristic odour.
Solubility in water:	Complete.
Boiling Point:	100 °C
Specific Gravity:	1.150 to 1.200 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:	Not determined
Vapour Density:	Not determined
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 fatal.
Skin or eye irritation:	This product contains Acidic material that may cause mild 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 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 contains a mild organic acid as an ingredient that is classified as combustible under EC Classification.
Risk phrases:	R22 Harmful if swallowed R36 Irritating to eyes R38 Irritating to skin
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.