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material safety data sheet :

LIME CLEANER TM

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DESCRIPTION :

LIME CLEANER is a concentrated acid-based liquid product designed to attack and eliminate limestone, caustic lime deposits and dry lime stains from cargo tanks and other large common metal surface installations. LIME CLEANER is formulated with strong acids, surface-active agents and special corrosion inhibitors, sufficient enough to neutralize strong alkaline-caustic conditions. ADVANTAGES AND CHARACTERISTICS :

- Ideal for the removal of limestone, birdlime and dry lime stains from all common metal tanks and installations.
- Applicable to all metal surfaces and parts except those being galvanized and those made of Tin, Zinc, Aluminum and Lead.
- May be combined with a specific range of other products.
- Replaces the use of other products, which fail to treat awkward situations like the removal of salt deposits and other hard deposits such as rust.
- Cost effective, easy to apply and use.

PHYSICAL PROPERTIES :

LIME CLEANER is a concentrated aqueous solution consisting of a blend of acids, special surfactants and specific corrosion inhibitors.

Appearance/Color : Clear, colorless liquidSpecific gravity : 1.20 - 1.30 gr/cm3 at 20 °C

Solubility in water : Appreciable

pH value : 1.0 - 2.0

Odor : Acidic

APPLICATION AND USE :

<u>A. Dosing Procedure LIME CLEANER must be used in quantities proportional to the cargo hold surface area that is to be</u> covered, the extent of contamination, the available downtime and the application method being used. Therefore, the actual quantity needed cannot be prescribed beforehand, since the operator is the best placed person, to decide the required quantity, analogous to the situation at hand.

<u>B. Cleaning Procedure</u> LIME CLEANER may be applied by two methods, injection and soaking. Injection is a method where a high - pressure machine, suitable to process chemical solutions, is used with a 50% LIME CLEANER/water solution to inject directly onto the tank surface area. Then, the solution must be left to act for 15 minutes followed by thorough rinsing using a high-pressure water supply source. Thereafter, the surface must be left to dry. Note that percentage dilutions may vary depending on the thickness and hardness of the deposited lime layer. Soaking is a method where LIME CLEANER is used undiluted and applied with conventional methods such as an elongated thick and hard brush, a hard sponge etc. Once applied, LIME CLEANER must be left to soak for 30 minutes. Thereafter, thorough rinsing with water is necessary, followed by leaving the surface to dry. Usually, this method is applicable to heavily contaminated small and large cargo hold surface areas and installations.

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SAFETY AND HANDLING:

HANDLING	Handle with care. Store in a dry, cool and well ventilated environment.
SAFETY	IMMEDIATE ACTIONS.
Eye Contact	Avoid Eye contact. Otherwise, flush with plenty of water for a few minutes. Seek medical attention.
Skin Contact	Avoid Skin contact. Otherwise, wash contaminated area thoroughly with water. Seek medical attention.
Inhalation	Do not breathe gas/vapors. Otherwise, seek fresh air source at once. Seek medical attention. In case of insufficient ventilation, wear suitable respiratory equipment.
If Swallowed	Avoid ingestion. Otherwise, consume a considerable quantity of water. Do not induce vomiting. Seek medical attention.
GENERAL INSTRUCTIONS	Avoid spillage, splashing and mishandling. Precautionary measures for body protection are strongly. recommended before use

Read the Material Safety Data Sheet before using this product.

For detailed information on safety and health, please refer to Material Safety Data Sheet and/or Product Label.

Kemotor ships Services or any subsidiary or associated companies warranties of merchantability and competence, if any, along with any expressed warranties concerning this merchandise, shall not be actionable or pertinent or effective if the good is used contrarily or differently to the directions herein and in no other way due to impending hazards from inappropriate use of the good explained herein. Merchandise might vary insubstantially depending on country of origin. The information provided concerning merchandise is exclusively presented to the customer.

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