

MAIN ENGINE COOLING SYSTEM CLEANER

MARIGASES

SERVICES

## **DESCRIPTION**

MAIN ENGINE COOLING SYSTEM CLEANER is a superior, heavy duty, concentrated liquid acid solution specifically designed to remove rust and water scale build-up from cooling systems.

MAIN ENGINE COOLING SYSTEM CLEANER is characterized by the composition of high quality raw materials and the quick and effective results once applied.

# ADVANTAGES & CHARACTERISTICS

- Ideal for the complete removal of scale and rust accumulation.
- Acts quickly and thoroughly.
- Applicable to all ferrous metal surfaces and parts, except stainless steel surfaces, those being galvanized and those made of Tin, Zinc, Lead and Aluminum.
- Water-soluble, non-flammable and non-volatile.
- Has no known effect on rubber and plastic.
- May be combined with a specific range of other products.
- Can be used for difficult cleaning conditions.
- Cost effective, easy to apply and use.

# PHYSICAL PROPERTIES

MAIN ENGINE COOLING SYSTEM CLEANER is a concentrated, non-volatile, acid based, aqueous solution consisting of wetting agents, corrosion inhibitors, powerful descalers and a color indicator.

Appearance / Color	: Clear, colorless liquid.
Specific gravity	: 1.16 gr/cm <sup>3</sup> at 15° C
Solubility in water	: Appreciable
pH (1% Solution)	: 0-1
Odor	: Pungent

# PACKAGING

Order Number: 833036 (30 ltrs). Container: Plastic jerrican

## **APPLICATION AND USE**

## **Cleaning Procedure**

The cleaning procedure that has to be followed for chemical cleaning of main engine's cooling system is described in details below:

- 1. Do not remove any component / spare part from the main engine.
- 2. Use as many air vents as possible, from the top side of the main engine, that will end up to the expansion tank. (including thermometers, manometers, etc) and we join them to the expansion tank with the use of flexible plastic pipes.
- 3. Draw out sludge from drains.
- 4. Refill with fresh water for completion of the system.
- 5. Circulate with a small pump that will "distress" from the bottom side of the system. With the aid of air vents, the cleaning solution will be forwarded to the expansion tank. The pump will suck the solution from the expansion tank and that way complete circulation will take place.
- 6. Then, MAIN ENGINE COOLING SYSTEM CLEANER solution must be poured into the expansion tank. AT the same time pH value must be obtained with the use of pH MEASURING TAPE.
- 7. Heating of the solution between  $35^{\circ}$ C to  $40^{\circ}$ C will lead to faster and more effective result.
- 8. After 6 8 hours of circulation and if pH value is in the acidic range (1-2), then the system has been cleaned.
- 9. Empty the system, wash 2-3 times with fresh water and neutralize with the use of 1% ALKALINITY CONTROL.

# 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/vapour. In case of insufficient ventilation, wear suitable respiratory equipment. Otherwise, seek fresh air source at once and ask for medical attention immediately.
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. Wear suitable protective clothing, gloves and eye/face protection before using the product.

#### 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.

MARICHEM MARIGASES Worldwide 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.