



MARICHEM T.T.C.™

DESCRIPTION

MARICHEM T.T.C. is a concentrated organic solvent-based liquid compound formulated with strong aromatic solvents, emulsifying agents and surface-active agents in order to attack, penetrate and dissolve heavy oil contamination, grease, petrochemical compounds and light carbonaceous deposits, which are accumulated in oil coolers, preheated double bottoms, bilges, deep tanks etc. Furthermore, it acts as a sludge conditioner.

ADVANTAGES AND CHARACTERISTICS

- ◆ Effectively removes and dissolves mineral oils, grease, petrochemicals and carbon residues from tank surfaces, engine rooms, mechanical installations, engine units, parts and components that experience heavy deposition.
 - ◆ A powerful sludge conditioner.
 - ◆ Provides a quick and thorough emulsifying action.
 - ◆ Can safely be used on all metal surfaces and its alloys (even if painted).
 - ◆ No known effect on rubber and plastic compounds.
 - ◆ May be used as a general purpose cleaner to remove oil and grease deposits.
 - ◆ Non-corrosive, non-conductive and of low toxicity.
 - ◆ Disperses in water to form a milky-white emulsion before the separation of water from oil.
 - ◆ Can be combined with a specific range of products.
 - ◆ Reduces emulsion carryover and permits water-oil mixtures to separate into an aqueous phase and an oil phase.
 - ◆ Cost effective, easy to apply and use.
- ▶ **According to MARPOL 73/78** chemical tankers are only permitted to use tank cleaning agents, which had been approved and evaluated by the International Maritime Organisation (IMO).
- ▶ **MARICHEM T.T.C.** was evaluated in accordance with MEPC.1/Circ. 590 through IMO's Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH Working Group) and found to meet the requirements of regulation 13.5.2 of Annex II of MARPOL 73/78.

PHYSICAL PROPERTIES

MARICHEM T.T.C. is a powerful liquid blend of organic solvents, superior emulsifying agents and high grade surfactants.

Appearance/Color	: Clear, colorless liquid
Specific gravity	: 0.82 - 0.88 gr/cm ³ at 20°C
Solubility in water	: Miscible
Flash Point	: 46°C
Odor	: Characteristic aromatic solvent odor

PACKAGING

Order Number	: 832520 (25 ltrs)
	: 832120 (210 ltrs)
Container	: Steel drum

APPLICATION AND USE

A. Dosing Procedure

MARICHEM T.T.C. may be applied fully concentrated or diluted with water. The quantity to be used is proportional to the degree of contamination, the available downtime, the surface area to cover and the desired degree of cleaning. For heavy contamination, **MARICHEM T.T.C.** may be used undiluted, where as for lighter contamination we suggest a 10–30% solution with water. For tank cleaning and sludge conditioning various strength solutions between 0.1–0.3% may be used.

B. Cleaning Procedure

The application of **MARICHEM T.T.C.** may be done by agitation, recirculation and/or soaking immersion.

Rock and Roll method: This method is applicable for tank cleaning at sea. Fill the tank with 0.1–0.3% of **MARICHEM T.T.C.** and let the solution to act for 2–6 hours. This will enable the solution to soften, penetrate and dissolve the hard bottom deposits, which have formed. Then fill with seawater at 30% of the tank's capacity and let the solution stand for approximately 1–2 days time. In that period cleaning will be initiated due to wave motion. Then fill with more seawater to 60% of the tank's capacity and leave the solution to act long enough, so that complete cleaning due to wave motion/natural agitation is accomplished. Afterwards, discharge the tank out and rinse off by filling the tank 1–2 times its capacity with seawater.



MARICHEM®

► **Note** that **MARICHEM T.T.C.** must always be fed to the tank and then to the bunkers.

Recirculation Method: It is recommended to use the desired solution according to the degree of contamination and number of tanks to be cleaned with this solution. For this reason the dose rates and results of the cleaning may vary, but as minimum dosage a 0.5% solution of the product must be used. The best result is achieved around 70°C.

Slop water should be pumped ashore or should be pumped to ship's slop tanks after finishing with the cleaning procedure.

Soaking Immersion method: After the solution is prepared, immerse the part, component or unit to be cleaned, and leave it to soak for 30 minutes. Afterwards, rinse thoroughly with water.

! 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.

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.