

TankCare Plus

Description

TANK CLEANERS

Product Code: 110002

LOW-TOXIC EMULSIFYING TANK CLEANER AND DEGREASER

- Concentrated and Cost-Effective: Efficient and economical for various cleaning methods
- Quick-Acting: Penetrates surfaces rapidly
- Time-Saving: Reduces cleaning time
- Minimizes Downtime: Ensures efficient operations
- Reduces Manual Labor: Minimizes the need for manual cleaning
- Versatile: Suitable for a wide range of cleaning applications
- Safe and Environmentally Friendly: Non-toxic and eco-conscious formula
- Composition conforming to MARPOL ANNEX V

APPLICATION AREAS

Cargo tanks
General cleaning
Engine room
Deep & double bottom tanks
Fuel oil tanks
Bilges
Tank lines
Wing tanks
Zinc coated tanks

PROBLEMS SOLVED

Prolonged cleaning time and downtime
Cleaning and gas freeing
CPP cargo
DPP cargo
Vegetable, fish and animal oils and fats
Heavy mineral oils
Greases
Palm fatty acids
Styrene
Crude palm oil
Lubricants
Asphalt
Distillation residues
Coal tar
Synthetic resins
Paraffines

DESCRIPTION

TankCare Plus is a concentrated, heavy-duty tank cleaner formulated with natural raw materials. It's free from chlorinated or aromatic hydrocarbons, making it suitable for cleaning after various cargoes. This multi-functional cleaner can be used diluted or neat for cleaning cargo tanks, deep tanks, and bilges. Safe for most tank coatings, it's compatible with standard tank cleaning methods like

machine cleaning, rock-and-roll, or hand spraying.

APPLICATION

TankCare Plus is effective at removing inert gas soot, vegetable, fish, and animal oils and fats, crude palm oil, styrene, palm fatty acids, fatty acids and greases, heavy mineral oils, greases, dopes, additives, lubricants, asphalt, distillation residues, coal tar, several synthetic resins, and paraffines. It's suitable for stainless steel, epoxy, and zinc-coated tanks. Thanks to its highly concentrated formula, less cleaning agent is needed for effective tank cleaning. It can also be used for engine room and deck cleaning and degreasing, reducing the need for multiple cleaning detergents onboard.

USE AND DOSING

Instructions are based on experience and are meant only as a guide since circumstances for each tank cleaning operation vary. They are not intended to interfere with the judgment of the vessel's responsible personnel.

Before tank cleaning, prewashing with hot water is recommended. For drying or semi-drying oils, a cold water prewash should be done immediately after discharge to prevent residue hardening. Gradually increase water temperature for a more effective prewash.

The **Recirculation Method** is the most effective and widely used. Pump the chemical solution under pressure through a closed re-circulation circuit to a mechanical tank washing machine. The solution can be prepared in the tank being cleaned or the slop tank. Heat is achieved using a heat exchanger, steam coils, or live steam injection. This method recovers heat and chemicals for use in other tanks. For cleaning, circulate a 0.1-0.2% **TankCare Plus** solution (1-2 liters per ton wash water) for at least 2-4 hours at 65-80°C. Thoroughly rinse with water afterward. For high-purity cargoes, use D.I. water for rinsing.

When using **Direct Injection**, inject 0.1-0.2% of **TankCare Plus** into the washing system. Maintain cleaning temperatures up to 60°C. Clean for 2-6 hours and rinse thoroughly with fresh hot water.

To clean tanks using the **Spray Method**, first prepare a solution of **TankCare Plus**. The concentration of the solution should be between 0.1 and 0.2% for removing the last traces of hydrocarbons, and up to 10% for carbonized or hardened residues. Spray the solution onto the tank surfaces and allow it to sit for at least 30 minutes.

Afterward, thoroughly rinse all tank surfaces with hot water for one or two cycles, each lasting approximately 30 to 45 minutes, or until the cleaning detergent is completely removed. For optimal results, the hot water should be heated to a temperature between 60 and 80°C.

Soaking Method: For heavily soiled parts, apply undiluted **TankCare Plus** and immerse the parts in a bath. For medium to lightly soiled parts, prepare a solution of 10 to 30% **TankCare Plus** in water. Soak the parts for at least 30 minutes before washing them off with water.

Rock and Roll Method: This method is particularly effective for cleaning double bottom tanks at sea. The recommended dosage rate for **TankCare Plus** is between 0.5 and 1.0%, as follows:

Fuel Oil Viscosity > 320 cSt at 50°C: 1.0 litre of **TankCare Plus** per ton of water for 1st and 2nd Stage.
Fuel Oil Viscosity = 180-320 cSt at 50°C: 1.0 litre of **TankCare Plus** per ton of water for 1st Stage and 0.75 litre for 2nd Stage.

Fuel Oil Viscosity = 30-180 cSt at 50°C: 0.75 litre of **TankCare Plus** per ton of water for 1st Stage and none for 2nd Stage.

Fuel Oil Viscosity <30 cSt at 50°C: 0.50 litre of **TankCare Plus** per ton of water for 1st Stage and none for 2nd Stage.

1. Heat the remaining fuel in the tank, and flush tank with sea water, stripping constantly. After flushing, ensure all suction and discharge valves in the engine room are closed.
2. Fill the tank through the sounding pipe or manhole with the proper amount of **TankCare Plus** for the amount of solution that will be needed for the 75-80% of capacity of tank to be cleaned.
3. For the first cleaning step, fill tank to 25% capacity with sea water, raise the temperature up to 60°C and maintain this for 1 day.
4. Raise the level in the tanks to 75-80% of capacity by further addition of seawater and continue to heat for 2-3 days. If sea is calm, be sure tanks are full enough so that the overheads come in contact with the cleaning solution.
5. Strip the contents of the tanks, fill to 50-60% capacity with sea water and allow 2 hours rinsing time.
6. Discharge tank and strip, while flushing with sea water for 2 hours and continuous stripping. Inspect tank.
7. If second cleaning is required, add a second dose of **TankCare Plus**, filling the tank to 75-80% capacity with sea water and raise the temperature to 60°C maximum. Maintain this for 2-3 days. In calm seas recirculate the solution in tank as long as possible.
8. Discharge tank and strip, while flushing with sea water for 2 hours and continuous stripping. Inspect tank.

Marine Diesel Engine Cooling Water Systems Degreasing (only used when engine is out of service):

1. Drain the cooling system and flush with water.
2. Refill engine with water adding 20 litres **TankCare Plus** per ton of cooling water.
3. Circulate the solution through the system and heat until a temperature of about 60°C.
4. Continue circulation of the solution through the system for a minimum of 5 hours.
5. Drain engine and check the cleaning result. Repeat cleaning procedure if necessary.
6. When cleaning is completed, drain the system, and thoroughly flush with clean water. Refill while adding an anticorrosion treatment such as **Corrosion Guard**.

PRODUCT PROPERTIES

The product is compatible with all normally used metals and their alloys. Rubber/synthetic rubber may swell. It is recommended to test all cleaning chemicals on a small area of tank coating, before full scale application.

Appearance: Pale yellow liquid

pH (undiluted): N/A

Density: $0.80 \pm 0.07 \text{ g/cm}^3$

Flash Point: $>61^\circ\text{C}$

General Instructions: Avoid spillage, splashing and mishandling. Precautionary measures for body protection are strongly recommended before and during use.