Global
Marine
Solutions

CLEAN BREAK

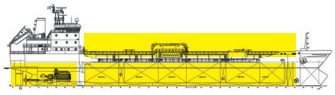
Oil and Water Separating Tank Cleaner

Technical Information

PHYSICAL DATA

Appearance:	Clear amber liquid.
Specific gravity:	0,80 at 20°C.
Flash Point:	More than 70°C.
Corrosive action:	Metal: None. Paint: None Rubber: Slight swelling.

USAGE AREAS



APPROVALS

IMO APPROVED
MEPC.2/CIRC.13 Annex 10

DESCRIPTION

Liquid compound heavy duty tank cleaner containing wetting agents and detergents with built in de-emulsifiers.

- Heavy duty tank cleaner.
- Breaks emulsions into separate oil and water phases after cleaning.
- Allows discharge of essentially oil-free water phase.
- Allows oil residues to be reclaimed.

APPLICATIONS

- Cleaning and gas freeing of mineral oil tanks.
- For upgrading of tanks from black to white or grain.
- To give separating of cleaning slops into phases after cleaning so that phase contains less than 5 PPM of oil.

ADVANTAGES

- **Highly effective solvent, rapid penetration.**
- **Slops emulsions break down on settling.**
- **Breaks into two distinct phases -oil and water.**
- **Oil phase may be reclaimed as usable oil.**
- **Product remains in oil phase**
- **No impairment of combustion or refinery processes.**
- **Water phase completely free of chemicals and retains neutral pH.**
- **Water phase contains less than 5 PPM of oil.**
- **Reduces disposal costs and problems.**
- **Highly concentrated product -Economical in use.**
- **Low toxicity when used as directed.**
- **Non corrosive.**

CLEAN BREAK

DIRECTIONS FOR USE – PRODUCT DOSE

Tankwashing machines

- CLEAN BREAK is injected prior to the first hydrant in the hot wash water line at a rate of one litre per ton of hot salt water as follows: -for the last hour of fixed machine cycles -for the last bottom drop cycle using portable machines -throughout spotting cycles with portable machines.
- A hot wash water temperature of not less than 50°C should be used and should preferably be in the range of 65°C to 80°C.
- It is important to maintain the tank bottom well stripped during the cleaning operation, since a build-up of wash water will cushion the force of the jet and any sludge and scale built-up in the tank bottom will not be effectively removed.
- Slops should be constantly stripped from the tanks and transferred to a holding tank. Allow slops to settle and "break" to occur so water may then be decanted.

Direct Spray Application

- Area to be cleaned should be evenly sprayed, using a nonatomising spray, with neat CLEAN BREAK. Allow a residence time of at least 30 minutes, and up to 2 hours where possible, to ensure good penetration of soiling.
- Wash down thoroughly all tank surfaces using hot water wash. We recommend a temperature of 65°C to 80°C and a pressure of at least 5,6 kg/cm. 2 (80 psi) should be used.
- Maintain the tank bottom in a well stripped condition during water wash as build up of wash water will cushion force and effectiveness of jet on tank bottom.
- Allow slops to settle in a holding tank and "break" to occur before decanting.

Disposal of slops

Slops may be allowed to settle, and then the water decanted. Biologically safe water may be pumped overboard, when permitted by authorities. The oil may be discharged at the next loading port for reprocessing or maintained on board, and the tank utilised as a load-on-top situation.

DIRECTIONS FOR CLEANING OF CARGO AND STORAGE TANKS

Pre-wash

Before cleaning with CLEAN BREAK, it is recommended to prewash tanks with hot water of approximately 50°C except for crude oil, drying and semi-drying oils where a prewash with cold water should be applied.

Direct Injection Method for Cargo Tanks

Undiluted CLEAN BREAK should be injected at a predetermined rate into the pressure side of the automatic tank cleaning system line on deck by means of an air-operated drum (barrel) pump. Usually an injection rate of 0.1 0.2 liter CLEAN BREAK per 100 liters of tank wash water is sufficient. Cleaning time 2-6 hours. Subsequently rinse with water.

Tank clearing procedure from DPP to CPP/Gas Free

1. Butterworth for 2-3 hours with sea water close to and max. temperature 50°C.
2. Butterworth for 2 hours with sea water close to 60° to 70°C in second time.
3. Create a mixture (5%) of CLEAN BREAK in a slop tank, keep water mixture temp around 80°C and use this water for recirculation inside the cargo tanks. Each tank recirculation for about 2 hours. You may need to change/create new solution, when the water inside slop tank becomes very black.
4. Butterworth for 1-2 hours with hot (80°C) sea water. (*follow*)

CLEAN BREAK

5. Check the tank for sludge. Whenever sludge is present, you may need to vent and gas-free and then manually de-muck the cargo tank, prior giving another 1 hour of hot sea water wash.
6. Rinse with Fresh water for 30 minutes at ambient temperature. Vent / mop / dry and de-muck as required.

Hand Spraying Method

Spray undiluted CLEAN BREAK on to bulkhead, frames, stringers, longitudinals etc. using an air-operated drum pump connected with a delivery hose and hand spray gun. After a predetermined reaction time, tanks should be rinsed with water using the automatic tank washing machines. For spot cleaning only, use hand held hose for rinsing, for instance a firehose with nozzle. Hand Spraying Method is the most economical system in terms of chemical consumption but requires tanks beeing gasfree enabling men to enter tanks. However, Hand Spraying Method has a practical time limitation depending on tank sizes, i.e. total tank surface to be sprayed.

At Sea Cleaning Method (for Double Bottom Tanks)

Time, temperature and agitation of chemical solution are important factors for the successful cleaning of Double Bottom Tanks.

1. Heat tank to higher than normal temperature, pump out as much fuel as possible and trim vessel to ensure complete stripping.
2. Close all valves on engine room manifold.
3. Introduce first dose of CLEAN BREAK, through the sounding pipe, in accordance with the dosage table stated below and fill the tank to 25% of its capacity with sea water. For filling the tanks it is advised not to use the ballast lines as they may contain fuel oil making the cleaning more difficult.
4. Heat cleaning solution to minimum 60°C and maintain temperature for 48 hours. If heating coils are not available, live steam may be used for heating the solution and maintain temperature.
5. Empty tanks completely, fill to 50% capacity and empty again. Where single stage cleaning is used the previous steps are ignored.Add second dose of CLEAN BREAK and fill tank with sea water to 50% of it's capacity, continue heating and maintain at this level for 48 hours.
6. Add further sea water to fill tank to 75% capacity, continue heating and maintain for another 48 hours.
7. Empty tanks and pressure rinse with clean water through sounding pipes for 1-1 hour under continuous stripping. Pressure should be kept as high as safety permits.
8. When rinsing is completed stop discharge (stripping) pump and fill tank until clear water runs from sounding pipes on deck.
9. Stop water supply and empty (strip) tank. Trim vessel to ensure complete stripping.

Note: If tanks are not severely contaminated and/or the fuel oil viscosity is lower than 180 cSt at 50°C the cleaning process should be in one stage using step 5-10 only.

IMPORTANT NOTICE