

CARECLEAN LowCOD

HIGHLY CONCENTRATED DETERGENT BASED ON NATURAL RAW MATERIALS

- ▶ Much more effective than solvents (shorter cleaning time); universally applicable
- ▶ Cleaning fluid separates very rapidly into a water layer and an oil layer
- ▶ Water phase has a very low Chemical Oxygen Demand (COD)
- ▶ Very readily biodegradable
- ▶ High flashpoint makes it very safe in practice

INTRODUCTION

Careclean LowCOD is a very powerful detergent based on natural raw materials, emulsifiers and special surfactants. These have been selected to ensure that the hot emulsion separates very swiftly after the cleaning phase into a water phase and an oil phase. The water phase then meets the frequently put requirement of a Chemical Oxygen Demand (COD) of < 5.000 mg O₂ / litre.

Careclean LowCOD has been developed especially for the removal of heavy oils and greases, black tar, bitumen, distillation residues and many other pollutants. Its unusual composition makes it many times more effective than alkaline products. In practically all cases conventional solvents such as petroleum and white spirits can be replaced. Even as a 5% emulsion in water Careclean LowCOD is much more effective than most undiluted solvents. Careclean LowCOD is eminently suitable for application in circulation systems.

Waste generated by cleaning with Careclean LowCOD may be processed without problems in a conventional water purification plant. Careclean LowCOD emulsifies heavy pollutants, but separates in an oil/water separator. On average 90% less product than for solvent cleaning is used, resulting in considerable savings on the total costs of cleaning.



APPLICATION

Careclean LowCOD can be used for the removal of, among other pollutants, the following:

- Mineral oils
- Heavy fuel oil
- Bitumen
- Distillation residues
- Black tar
- Dopants, additives and lubricants

PROPERTIES

Contains very powerful solvents, emulsifiers and surfactants. Paints and varnishes should be tested beforehand for their resistance.

Colour	:	light yellow
Density (20 °C)	:	0.89
Flashpoint (10%)	:	> 62 °C
pH (5 emulsion)	:	appr. 8

USER INSTRUCTIONS

Heavy pollution (such as bitumen, black tar distillation residues, resins and rubbers), circulate with a 10 - 25 % emulsion at 50 - 70 °C. The cleaning time will be strongly dependent on the level of pollution. After cleaning stop the process and rinse with water.

Normal pollution (heavy fuel oil, dopants, additives, oils and greases), circulate with a 2- 10 % emulsion at 50 - 70 °C. The cleaning time will be strongly dependent on the level of pollution. After cleaning stop the process and rinse with water.

Immersion bath: Apply in 2 - 10 % emulsion. Circulation in the immersion bath is essential for maintaining the emulsion. Exposure time: 15 -120 minutes.

Tank cleaning: for the removal of lubricating oil, additives and dopants. A 0.2 - 0.5 % emulsion should be used at 50 - 70 °C with the assistance of a Butterworth machine. The cleaning time will depend on the nature of the pollutant. The cleaning time will be strongly dependent on the level of pollution. After cleaning stop the process and rinse with water.

Ultrasonic cleaning: for the cleaning of components, such as filters, the product is applied in a 25 - 50 % dilution in an ultrasonic cleaning unit. After the ultrasonic tray has been stationary for a while the cleaning solution will start to separate. This problem can be resolved simply by moving the basket in the tray up and down to produce once again a homogeneous cleaning solution.

Temperature: for light pollution and immersion bath applications 20 - 50 °C is the best operating temperature. Heavy pollution should be removed at high temperature (50 - 70 °C).

WASTE

The emulsion that remains after cleaning with Careclean LowCOD can be readily processed. The hot (ca. 70 °C) emulsion will within a few hours separate into an oil and water phase. The water phase meets the frequently put requirement of a COD of < 5.000 mg O2 / liter.

The separation process is reversible. This means that the emulsion can even after cooling (for example for transport to a waste processor) still be properly separated. Heating to 70 °C and allowing it to stand for several hours will result in the oil and water phase previously described.

What can MARINE CARE offer you?

Established for over 8 years, Marine Care is an international supplier of products to the marine industry. With various delivery ports around the world, Marine Care can offer you the following.

- ▶ Supply of Tank cleaning chemicals in most major ports around the world.
- ▶ **Specialty chemicals like Resin Stripper - for cleaning MDI/TDI residues and Caretank Eco, a concentrated tank cleaner with a wide range of applications.**
- ▶ Supply of maintenance and treatment chemicals for engine room and deck.
- ▶ Dosing systems for Seawater treatment, boiler treatment and evaporator treatment.