

# SEACLEAN

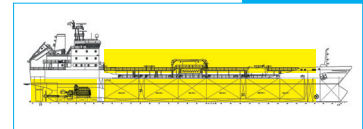
Powerful Solvent Based Cleaning Agent for Tank Cleaning at Sea

## Technical Information

### PHYSICAL DATA

Appearance:	Clear amber liquid
Apparent Specific Gravity:	0.90 at 20°C
Flash Point:	More than 70° C (158° F)
Corrosive action:	Metals and Coatings: None Rubber: Slight swelling

### USAGE AREAS



### APPROVALS



### DESCRIPTION

Strong emulsifying cleaning agent for the removal of heavy crude oil, soot, asphalt and carbon black stains, by direct injection, sea-clean method, spraying and/or recirculation method. Based on aliphatic/aromatic hydrocarbons and ethoxylated iso-alcohol surface active agents. Washing times are reduced by 50% and only slight agitation is normally required. The product is safe to use on common metals.

### APPLICATIONS

#### Tanks

UNIservice Global SEACLEAN can be used for the removal of most mineral oils and fats in cargo and storage tanks.

#### Double Bottom Tanks

SEACLEAN can be used for cleaning and gas freeing of double bottom tanks. Using the rolling motion of the ship will normally provide sufficient agitation.

### DIRECTIONS FOR CLEANING OF CARGO AND STORAGE TANKS

#### Pre-wash

Before cleaning with SEACLEAN, 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 SEACLEAN 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 SEACLEAN per 100 liters of tank wash water is sufficient. Cleaning time 2-6 hours. Subsequently rinse with water.

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## 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 SEACLEAN 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.
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 SEACLEAN 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 being 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 SEACLEAN, 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.
6. Add second dose of SEACLEAN and fill tank with sea water to 50% of it's capacity, continue heating and maintain at this level for 48 hours.
7. Add further sea water to fill tank to 75% capacity, continue heating and maintain for another 48 hours.
8. 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.
9. When rinsing is completed stop discharge (stripping) pump and fill tank until clear water runs from sounding pipes on deck.
10. 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.

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## PROPERTIES

Highly concentrated blend of aromatic solvents, emulsifiers and surface active ingredients. Emulsifiable with water to a maximum of 50%. Undiluted at room temperature or in emulsions with water up to 6% at a maximum temperature of 60°C it can also be used on plastic materials, epoxy and zinc silicate coatings.

## DOSAGE TABLE FOR SEACLEAN

Tank Capacity		Proportioning of SEACLEAN in liters			Tank Capacity		Proportioning of SEACLEAN in liters		
in ton	minimum	normal	maximum	in ton	minimum	normal	maximum		
2.5	2	4	6	100	80	160	240		
5	4	8	12	200	160	320	480		
10	8	16	24	250	200	400	600		
15	12	24	36	300	240	480	720		
20	16	32	48	400	320	640	960		
25	20	40	60	500	400	800	1200		
30	24	48	72	600	480	960	1440		
40	32	64	96	700	560	1120	1680		
50	40	80	120	800	640	1280	1920		
75	60	120	180	900	720	1440	2160		
				1000	800	1600	2400		

## IMPORTANT NOTICE

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