

Technical Guideline

APPLICATION

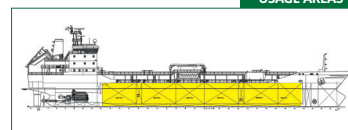
ECOSOLUT CC is used for cleaning cargo tanks through fixed and portable tank cleaning machines. It can also be used for manual cleaning with high-pressure portable barrel pumps equipped with spray gun attachments.

CHARACTERISTICS

ECOSOLUT CC is a specialized detergent formulation designed for highly effective cleaning of various substances, including:

- **Tallow**
- **Polyols**
- **Residues of Vegetable Oils (all grades)**
- **Clean Petroleum Products (CPP)**
- **Ultra Low Sulfur Diesel (ULSD)**
- **Dirty Petroleum Products (DPP)**
- **Benzene, Toluene, Ethyl-benzene, Xylenes (BTEX)**
- **Hydro-cracker Bottoms (HCB)**
- **Linear Alpha Olefins (LAO)**
- **Fatty Acids Methyl Ester (from soybean oil) (FAME)**
- **Pitch Tall Oil (PTO)**

USAGE AREAS



APPROVALS



APPLICATION & USAGE AREAS

ECOSOLUT CC is used for cleaning cargo tanks through fixed and portable tank cleaning machines. It can also be used for manual cleaning with high-pressure portable barrel pumps equipped with spray gun attachments.

RECOMMENDED DILUTION

For particularly difficult cargoes, a 5% dilution of ECOSOLUT CC is recommended. However, lower concentrations (1%–2%) can be used depending on the level of soiling and the cargo grade.

COMPATIBILITY

ECOSOLUT CC is equally effective in both fresh water and saltwater. In its concentrated form, it has a pH of approximately 9.5–10, making it safe to use on all types of coatings (except zinc) and stainless steel.

ECOSOLUT® CC

SAFETY

ECOSOLUT CC does not contain aggressive cleaning additives such as caustic or acids, making it safe for transport by land, sea, and air. It is also non-flammable due to the absence of solvents or alcohols. The product can be used as a spot cleaner when needed.

TYPICAL APPLICATION PROCEDURE

Before using ECOSOLUT CC or any cleaning chemical, it is crucial to remove as much of the previous cargo as possible from the cargo tanks and transfer lines using water. This helps prevent excessive use of cleaning chemicals, considering environmental and financial implications.

PRE-WASHING

For chemical cargoes that polymerize or contain drying/semi-drying oils, perform a pre-wash with copious amounts of ambient temperature water to prevent the formation of a “polymerized” film on the surface of the cargo tanks. For all oil-based cargoes, if cleaning cannot start immediately after the tanks are certified as empty, keep the tanks moist/wet by flushing with water and keeping them closed until cleaning can begin.

MAIN CLEANING PROCESS

Continue with seawater washing, using increased temperature if appropriate, until all previous cargo residues are removed.

Proceed with ECOSOLUT CC diluted to 2–5% in sea or fresh water for a minimum of 2 hours or 4 washing cycles. Elevated washing water temperatures can improve the cleaning process’s efficacy.

DOSAGE AND APPLICATION PROCEDURE

The dosage of ECOSOLUT CC may vary depending on the nature of the previous cargo, the degree of contamination, and the washing water temperature. The following suggestions can be used as a guide.

For the removal of vegetable oils, CPP, and other light grades of cargoes using tank-cleaning machines:

- Use ECOSOLUT CC at a dilution rate of 2–3% through recirculation.
- Alternatively, inject ECOSOLUT CC directly into the tank cleaning line at a rate of 2–5L per MT of washing water.

For manual removal of surface contamination:

- Use ECOSOLUT CC at concentrations between 1% and 5% in fresh water, depending on the extent of contamination.
- After cleaning, rinse the cargo tanks with hot water.

FOR MANUAL REMOVAL OF SURFACE CONTAMINATION

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ECOSOLUT® CC

SPOT CLEANING

In exceptional cases, ECOSOLUT CC may be used for spot cleaning in its undiluted form. Apply the product to contaminated areas manually through spraying or brushing, leave it for 15-30 minutes (without allowing it to dry out), and then wash it away using high pressure, either through a barrel pump or tank cleaning machines.

REQUIRED EQUIPMENT

For manual removal of surface contamination, a high-pressure cleaner with heating capability (pressure 30-180 bar) and hand-brushes are required.

REQUIRED WATER QUALITY

Fresh water (regular, river, or lake water) is recommended for optimal performance, although salt water can be used with reduced effectiveness.

TEMPERATURE RANGE OF TREATMENT SOLUTION

The performance of ECOSOLUT CC increases with temperature. It is advised to use an application temperature of at least 60°C or in a steam cleaning system.

HAZARD CLASSIFICATION (EC)

Refer to the ECOSOLUT CC Safety Data Sheet for hazard classification details.

PRODUCT STORAGE

ECOSOLUT CC concentrate has a shelf life of 24 months. Diluted wash solutions should be prepared immediately before application.

WASTE MANAGEMENT

Dispose of materials according to local regulations.

APPROVALS

ECOSOLUT CC has been accepted as a cleaning chemical by the International Maritime Organization and is listed in Annex 10 of the MEPC.2/Circular.

HEALTH SAFETY AND ENVIRONMENT (HSE)

UNIservice have carefully developed their products to minimize the safety risks and environmental impact of using their products. However, UNIservice advises that, prior to using its products, users should read in detail the accompanying MSDS and ensure that its products are applied within the required HSE regulations of the country in which the user operates. Best practice and safety requirements should be followed which will likely include method statements and risk assessments, together with any specific requirements of the user's own company HSE requirements.