



ISO CERT NO. 160067



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FALCHEM ENZYME TREATMENT

DESCRIPTION:

Enzyme Treat is a blend of acclimated aerobic and facultative bacteria COMBINED WITH A PROPRIETARY mix of cleaning chemicals. The bacteria have been specially selected and adapted for their ability to produce enzymes that work in concert with the chemicals to aggressively biodegrade and disperse residual organic waters in shipboard sanitation systems. Enzyme Treat was specifically formulated to address the task of cleaning system (collection holding and transfer system) for naval vessels. It is additionally effective in maintaining on-board biological sewage sanitation system (Marine Sanitation Devices [MSD]), no pipe work systems, holding tanks, and related units. Used on a maintenance basis, the adapted bacterial in Enzyme Treat can keep sewage and drain lines clean and clear while preventing the odors and related problems associated with marine sanitation units.

TYPICAL PHYSICAL PROPERTIES

Appearance: Free Flow Powder
Bulk Density: 0.6 to 0.7gr (cm3) 20°C.
pH 1% solution : 6>8.5
Flash Point: None.
Temperature range: 10°C to 40°C

APPLICATION

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- **Tank Cleaning** – Enzyme Treat tanks and merchant marine holding tanks can be cleaned during major vessel maintenance outages without dangerous caustic toxic chemical or personnel having to enter the tanks.

- **Sewage Treatment Plant** – Augmentation of the biological sewage treatment system on a regular routine will optimize biological activity and maximize system efficiency.

- **Drain lines and Sewage Transfer Lines** – Sewage and galley drain lines can be kept clean of organic blockages via routine maintenance additions.

Sewage Holding /Tank Cleaning

Tank should be filled and pumped empty twice using fresh or saltwater to purge and loose soils or water. Dump flush water to waste.

Refill tank to 50% capacity using fresh or salt water.

If tank have an aeration system, air flow should be adjusted to provide steady rolling agitation of tank. If no aeration system exists, a temporary system may be rigged utilizing an air spurge line situated near the bottom of the tank.

4. Prepare a solution of Enzyme Treat utilizing 1.0 pound of Enzyme Treat/1 gallon of water (0.5 kg/4.0 liters). Optimum water temperature for make-down is 95° F to 100°F (35°C). Do not exceed 105° F(40°C). Although bacteria can function in temperatures down to 40° F (5°C), activity is optimum at 80°F (27°C) to 100°F (38°C). Prepared solution should be allowed to stand with occasional stirring for 60 to 90 minutes prior to addition to tank. Total dosage rate to tank should be a minimum of 3 pounds of Enzyme Treat per 1,000 gallons (7 kg/4,000 liters) of tank capacity. Dosages may be adjusted for highly fouled tank

Add the solution of Enzyme Treat to the tank, fill the tank to approximately 95% of capacity and maintain continuous aeration and mixing for 48 hours. Be certain that the tank is adequately vented to allow air from aeration to escape.



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6. At conclusion of cleaning system, discharge tank volume and rinse twice by filling to capacity with fresh water or salt water dumping to waste.
 7. If disinfection is required, dry chlorine may be dissolved in water and added at a dosage of 2 pounds/1,000 gallons of tank capacity while the tank is filled and aerated.
- At conclusion of disinfection, tank may be dumped, flushed and placed back in operation.

SAFETY AND HANDLING

HANDLING	Handle with care. Store in dry, cool and well ventilated environment.
SAFETY	IMMEDIATE ACTIONS
Eye Contact	Avoid Eye Contact. Otherwise, flush with plenty of water for a few minutes. Seek medical attention.
Skin Contact	Avoid Skin contact. Otherwise, wash contaminated area thoroughly with water. Seek medical attention.
Inhalation	Do not breathe gas/vapors. Otherwise, seek fresh air source at once. Seek medical attention. In case of insufficient ventilation, wear suitable respiratory equipment..
If Swallowed	Avoid ingestion. Otherwise, consume considerable quantity of water. Do not induce vomiting. Seek medical attention.
General instructions	Avoid spillage, splashing and mishandling. Precautionary measures for body protection are strongly recommended before use.

PACKING SIZE: 25 LITER, 200 LITERS PAIL/DRUM

Read the Material Safety Data Sheet before using this product

For detailed information on safety and health, please refer to Material Safety Data Sheet and/or product label.

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