UNITOR

Ideal for use on Cruise Ships

GAMAZYME 700FN

Biological Booster for Sewage Treatment Plants And Systems

Product Description

Gamazyme 700FN is a concentrated biologically active powder formulation containing a blend of patented bacterial strains, specifically developed to deal with sewage wastes.

How it Works

Gamazyme 700FN is formulated to degrade excess residual waste products in shipboard sanitation pipe work systems, holding tanks and marine sewage treatment plants. The specialised strains in Gamazyme 700FN will digest grease, fats, sewage, starch and other organic compounds. The degradation of paper, protein and waste product residuals is greatly increased, and the odours that these produce, are reduced.

The bacteria in Gamazyme 700FN will colonise the waste organic material which lines the pipework/tank system and degrade the waste until the system is clean. The biological activity in the marine sewage treatment plant is greatly increased, so the plant can thus handle more waste. The obnoxious smells in toilet areas and scuppers, normally associated with overloaded or blocked systems, are reduced.

Directions of Use and Dose Rates

Sewage treatment plant Direct dosing to the sewage treatment plant or via the nearest toilet will greatly enhance the biological activity and keep the plant at peak operating efficiency.

A) On Ships Except Passenger Vessels

Ineffective or septic sewage treatment can be reactivated and maintained in peak operating efficiency by dosing Gamazyme 700FN direct in the tank or via the nearest toilet. To reactivate the plant, 1 kg Gamazyme 700FN should be mixed with 10-15 litres of hand hot (35°C) fresh water, left for 10-15 minutes (stirring periodically) for the bacteria to activate before dosing into the tank daily until the system is operating efficiently. Maintenance dosing of 0.1 - 0.25 kg weekly will keep the system operating effectively. Replacing the toilet cleaner in use by Gamazyme BTC (biological toilet cleaner) will dose millions of specialised bacteria into the system. These powerful bacteria will digest organic material lining the pipes and boost the bacterial activity in the sewage treatment plant, keeping it operating at peak efficiency.

B) On Passenger Vessels

The applications is the same as mentioned above, but the dose rates are different.

The dose rate depends on the number of people on board the vessel. As a rule of thumb use 50 grams per m³ of the volume of the sewage tank, followed a weekly dosage of 10 gram per m³ of the volume of the sewage tank.

An example of a cruise vessel with a sewage tank of $100 \, \text{m}^3$ and $2500 \, \text{people}$ and on a two weeks cruise. What is the consumption of Gamazyme 700FN?

Initial dosage: $(50 \text{ g/m}^3 \text{ x } 100 \text{ m}^3)$:1000 = 5 kg Weekly dosage: $(10 \text{ g/m}^3 \text{ x } 100 \text{ m}^3)$:1000 x 2 weeks = 2 kg On this cruise, will be used. 7 kg of Gamazyme 700FN

Tank Cleaning

Holding tanks can be cleaned periodically or prior to entry without the use of dangerous toxic chemicals.

Grey and black water holding tanks, sewage tanks, sewage treatment plant should be flooded and pumped empty to clear excess soil before cleaning. Holding tanks must be fitted with an air manifold connected to a low pressure air line of sufficient volume to gently turn the mass of water within the tank. In sewage treatment tanks the normal air supply will suffice. The tank should be filled to 75% capacity with fresh or sea water and the air supply turned on. Approximately 0.5 kg of Gamazyme 700FN in 5 to 10 litres of fresh hand hot (35°C) water should be mixed and left for 10-15 minutes before dosing into the tank. Dosing can be either direct or via the nearest toilet. The tank should then be filled and left with the air on for at least 48 hours. The dose rate should be approximately 0.5 kg per 500 litres tank capacity with a minimum dose of 5 kg. Although Gamazyme 700FN is formulated for use in cold (15°C minimum) sea water, performance will improve with lukewarm (35°C) fresh water or sea water.

Pipe cleaning

Maintenance dosing will keep galley and sewage pipes clean and clear of organic residual wastes.

A liquid solution should be prepared by mixing of 0.5 kg of Gamazyme 700FN in 15-20 litres of hand hot (35°C) fresh water. Stir it and, if possible, leave for 15 minutes to reactivate the bacteria. Whilst constantly agitating this solution, 1 litre should be dosed into sinks, scuppers, showers, drains, waste disposal units, etc. each evening until the blockage is cleared. A maintenance dose once or twice a week can then be applied to keep the pipes in clean condition. Harsh toxic cleaners (acids, caustics, disinfectants) should not be used as these will kill off the bacterial action in the pipes. Alternatively, the pipes should be isolated and filled with the solution and left for up to 48 hours before draining. If necessary, further applications should be made until drains run clear.

See also next page

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NOTE: Severly scaled systems should be acid cleaned.

Features, Benefits and Applications

- Powder formulation for easy use
- Biodegradable
- Reactivates biological activity in systems which have been rendered inactive by overloading, washout or use of aggressive cleaning products
- Eliminates the odours associated with sanitary systems which are overloaded or blocked
- Cleans sewage holding tanks without the need for manual entry
- Clears pipes and systems blocked by organic waste matter
- Clears organic materials in slow draining pipes and scuppers
- Restarts septic sewage treatment plant.
- Keeps complete sanitary systems in optimum operational condition
- Eliminates the need for hazardous chemicals
- Cost-effective, saves time, money and manpower

Product Properties

APPEARANCE: Tan brown, saw dust like.

pH, in conc: N/A

COMPATIBILITY:

Metal: No known effect Rubber: No known effect Synthetic rubber: No known effect

PACKAGING: Product No. Size (in litres) Container

656 571711 Non-returnable Plastic containers

containers containing 12 kg.

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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