

# MICROZYME CHT POWDER

## 1. DESCRIPTION

**MICROZYME CHT** is a blend of acclimated aerobic and facultative bacteria combined with a proprietary mix of powerful 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. **MICROZYME CHT** was specifically formulated to address the task of cleaning CHT 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]), pipe work systems, holding tanks and related units.

Used on a maintenance basis, the adapted bacteria in **MICROZYME CHT** can keep sewage and drain lines clean and clear while preventing the odors and related problems associated with marine sanitation units.

## 2. APPLICATIONS

**Tank Cleaning** – CHT 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.

## 3. DIRECTIONS FOR USE

### Sewage Holding/Tank Cleaning

1. Tank should be filled and pumped empty twice using fresh or saltwater to purge and loose soils or water. Dump flush water to waste.
2. Refill tank to 50% capacity using fresh or salt water.
3. If tank have an aeration system, airflow should be adjusted to provide steady rolling agitation of tank. If no aeration system exists, a temporary system may be rigged utilizing an airline situated near the bottom of the tank.
4. Prepare a solution of **MICROZYME CHT** utilizing 1.0 pound of **MICROZYME CHT** / 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 **MICROZYME CHT** per 1,000 gallons (7 kg /4,000 liters) of tank capacity. Dosages may be adjusted for highly fouled tanks.

### CONCENTRATED POWDER BACTERIA FOR SANITATION SYSTEMS

#### Product Highlights

- Aggressively biodegrade and disperse residual organic water in shipboard sanitation systems.
- Specifically formulated for Naval vessels.
- Maintains on-board biological sewage sanitation system, pipe work systems, holding tanks and related units.
- Keeps sewage and drain lines clean and clear.
- Prevents odors.

#### Product Characteristics

Appearance:	White powder
Corrosive action:	None
Specific gravity:	1.0(20°C)
Flash Point:	None

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clean chemicals clean ships clean seas



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5. Add the solution of **MICROZYME CHT** 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.
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 (See bulletin No. 7/30) 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.
8. At conclusion of disinfection, tank may be dumped, flushed and placed back in operation.

### Drain Line Treatment / Sewage Treatment Plant

1. Prepare a solution of **MICROZYME CHT** by adding 0.5 pounds / 1 gallon (0.25 kg / 4 liters) of warm (95°F / 35°C) water. Allow standing for 60 to 90 minutes with occasional stirring.
2. With occasional agitation, add solution directly to all drains, sinks, toilets, or waste disposal units leading to the waste holding tank. Minimum dosage should be 1 quart (1 liter) per drain on addition point.
3. This process should be repeated on a 3 to 5 times / week basis decreasing frequency to optimize cleanliness of drain line and sewage plant efficiency.

### 4. OTHER INFORMATION

- Store in cool, dry place.
- Avoid inhalation of dust; it can be irritating to eyes.
- Wear suitable protective clothing, dust mask and eye protection when handling product.
- For eye and skin contact, wash thoroughly with clean, fresh water.