

POND & AQUARIUM TREATMENT INFORMATION

SUPER CONCENTRATED ALL NATURAL MICRO ENCAPSULATED ENVIRONMENTALLY SAFE BACTERIA & ENZYMES

For Ponds, Fountains, Fish Aquaria, Prawn & Tilapia & Livestock Water Tanks

- Reduces Organic Bottom Solids & Scum, Cuts Odors
- Reduces Ammonia and Nitrates, Safe Yet Effective To Use

1. Application Parameters Will Not Harm Fish or Animals

<u>Special Instructions</u>: For the best performance of BIO-PURE Pond/Aquarium, drain and clean ponds, fountains, stock water tanks, and aquaria prior to treating. This makes it easier for the microorganisms in BIO-PURE Pond/Aquarium to establish control of your system. Aeration is important. Use aerator or stirrer to keep oxygen in the water. BIO-PURE Pond/Aquarium organisms can get started faster in the presence of oxygen. Mix proper amount of BIO-PURE Pond/Aquarium and water and apply evenly around edges. Don't pour all the mix in one spot.

<u>IMPORTANT</u>: In all cases, mix the bacteria by using one (1) gallon of pond/tank water per pound [454g] of BIO-PURE Pond/Aquarium. The mix then may be poured around the edges of the ponds, sprayed over the surface, or added directly to a filter.

<u>PLEASE NOTE</u>: BIO-PURE Pond/Aquarium may initially exert a high oxygen demand on the system. While applying BIO-PURE Pond/Aquarium, monitor DO levels twice daily. Proper oxygen levels can be maintained by increasing aeration or flow during this period or by temporarily decreasing fish population prior to treatment. Decreased DO levels may last two to three days.

If algae is present it could take several weeks for BIO-PURE Pond/Aquarium to biologically condition your aquarium/pond or you can treat with an approved algaecide, wait 14 days and begin the BIO-PURE Pond/Aquarium treatments. Another alternative is to harvest and remove the existing algae; this is the preferred method as it permanently removes the nutrients in the existing algae from the pond/lake. After either of these actions, with proper use BIO-PURE Pond/Aquarium will keep the organic buildup under control.

The following physical & chemical parameters have been proven best for accelerated growth:

DISSOLVED OXYGEN (DO): DO levels of at least 2 mg/L are required. If an aeration system is used this will normally fulfill this requirement. BIO-PURE product formulas contain facultative bacterial strains that will function with or without oxygen but will metabolize or biodegrade the targeted substance 5 to 7 times faster in the presence of oxygen. pH LEVELS: A range of 6.0 to 9.0 is the minimum and maximum levels. Optimum growth will occur from 6.6 to 7.4

TEMPERATURE: A range of 50°F [10°C] to 140°F [60°C] is the limiting range, with 80°F [26°C] to 90°F [32°C] being the optimum. Temperatures above 140°F [60°C] will cause cell death. Below 50°F [10°C] cell growth will slow and stop but this will not kill the cells.

NITROGEN: BIO-PURE cultures require at least 5 ppm nitrogen for growth. Doubling time will be most effective at nitrogen content of about 20 ppm.

SALINITY: BIO-PURE cultures have been proven effective in both marine and fresh water.

<u>GUIDELINES</u>: System must have less than 40% turn over of water in a single day. BIO-PURE Pond/Aquarium will not work in rivers or streams. Seed with BIO-PURE Pond/Aquarium once in the beginning of the season in temperate areas and once every 6 months in tropical or year round climates. Declining water quality is an indicator that the bacterial activity has slowed and a maintenance dose is required. Some climatic conditions can occur which can impact the effectiveness of the maintenance dose such as periods of drought or prolonged periods of high temperatures (100°F +) [37.7°C] during which times maintenance doses should be applied more frequently. If the pond receives high levels of nutrients or has a history of heavy algae blooms double the application rates. BIO-PURE Pond/Aquarium will not provide magical results and is not a cure-all. There are some ponds where it will not be effective. But, if all the environmental parameters are carefully followed over 99% of the applications are successful. DO NOT use BIO-PURE Pond/Aquarium with algaecides, as they will kill the bacteria. DO NOT use UV (ultra-violet irradiation) for 48 hours when BIO-PURE Pond/Aquarium is applied, as UV is harmful to bacteria. If required, UV can be used after 48 hours. However, it should be off again during the future BIO-PURE additions as above.

2. PONDS, FOUNTAINS, AQUARIUMS LIVESTOCK TANKS

PONDS, FOUNTAINS, KOI, GOLDFISH, DECORATIVE

- Initial treatment: Mix 1 scoop [15g] BIO-PURE Pond/Aquarium in ½ gallon of pond or fountain water for every 1,000 gallons of capacity.
- Maintenance Rates: Mix ½ scoop [7.5g] BIO-PURE Pond/Aquarium in ½ gallon of pond water every 1-2 weeks per 1,000 gallons [3,785L] of capacity.
- NOTE: For capacities over 8,000 gallons [30,283L] refer to Application Rates for Commercial Ponds.

AQUARI UMS: Clean tank before starting treatment.

- Initial Treatment: Mix 1/2 scoop [7.5g] BIO-PURE Pond/Aquarium in I cup of aquarium water for every 50 gallons of tank capacity. Pour into clean, full tank.
- Maintenance Rates: Every week add ¼ scoop [3.75g] of BIO-PURE Pond/Aquarium mixed in 1 cup) of aquarium water for every 50 gallons of capacity.

LIVESTOCK WATER TANKS: Clean tank before starting treatment.

- Initial Treatment: Mix ¹/₄ scoop [3.75g] of BIO-PURE Pond/Aquarium with 1-pint water for every 150 gallons of tank capacity.
- Maintenance Rates: Every two weeks mix ¹/₄ scoop [3.75g] BIO-PURE Pond/Aquarium in one pint water for every 150 gallons of tank capacity.

To Figure tank/pond/fountain capacities: Square or rectangular multiply length x width x average depth = cubic feet. Cubic feet x 7.4805 = gallons of capacity to treat. Multiply length [m] x width [m] x average depth [m] = cubic meters. Round multiply diameter x diameter x average depth x 5.9 = gallons of capacity to treat

3. COMMERCIAL & FARM POND RATES

1 Acre Foot equals approximately 325,850 gallons

AERATED PONDS

- Initial treatment: For each acre-foot of volume of water, add six (6) pounds of Pond/Aquarium for the initial treatment
- Maintenance Rates: For each acre-foot of volume of water, add one half (1/2) pound of Pond/Aquarium every two weeks.

STATIC PONDS

- Initial treatment: For each acre-foot of volume of water. add six (6) pounds Pond/Aquarium for the initial treatment.
- Maintenance Rates: For each acre-foot of water, add one (1) pound Pond/Aquarium every two weeks per acrefoot.

5. COOLING TOWERS

- For Every 3,000 Gallons of Capacity
- Initial seed treatment: one (1) ounce BIO-PURE mixed in one-half gallon to inoculate every 3.000 gallons.
- Maintenance Rates: ½ oz. 1 scoop BIO-PURE for every 3,000 gallons mixed with one half gallon of warm water poured in every two weeks.

Initial seed treatment is done only once at the start of the program <u>or</u> if the cooling tower is emptied and restarted. The maintenance rate is applied every 2 to 3 weeks depending on the organic build-up.

6. COMMERCIAL GAMEFISH & OTHER SPECIES: 1 Acre Foot equals approximately 325,850 gallons Initial treatment: For each acre-foot of volume of water. add (6) pounds of BIO-PURE Pond/Aquarium for the initial setup. Maintenance Rates: For each acre-foot of volume of water, add one half (I/2) pound of BIO-PURE Pond/Aquarium every week.



THE BACTERIA AND ENZYMES IN BIO-PURE WERE SELECTED #1 OUT OF 132 ENTRIES IN UNITED NATIONS FUNDED STUDY

STORE IN A COOL, DRY LOCATION OUT OF DIRECT SUNLIGHT

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