Biological Pond Clarifier

## CONTENTS

Blend of naturally occurring beneficial aerobic and facultative anaerobic microbes. Contains a minimum of $2.5 \times 109$ colony forming units/gram.

WEIGHT: 10 lbs . ( $\sim 6.67$ pucks/lb), 4.5 kg . ( $\sim 14.89$ pucks/kg)

## PRECAUTIONARY STATEMENTS

CAUTION: Harmful if swallowed. Not for human consumption. Wash hands with soap and water after handling or applying product. Non-toxic to pets, fish and aquatic plants.

## KEEP OUT OF REACH OF CHILDREN

- Keep in a dry area away from moisture
- Keep lid and inside bag sealed to keep pucks dry
- Not an algaecide
- Non hazardous


## IN CASE OF CONTACT

- EYES: If eye exposure occurs, wash with water for at least 15 minutes. Call a physician.
- SKIN: Eye and skin irritant. Wash skin and clothing thoroughly with water after exposure.
- INGESTION: Contact physician or poison-control center.


## STORAGE AND DISPOSAL

Store in the original container tightly closed, in a dry place. Do not allow pucks to freeze. Dispose of unused contents according to RCRA and all applicable national and local government regulations. Containers may be disposed of after thorough rinsing and offered for recycling or reconditioning or disposed of according to approved national and local regulations.

## GENERAL INFORMATION

Pond Pucks ${ }^{\text {TM }}$ are a natural, biological water treatment formulated to improve water clarity and enhance water quality by removing excess nutrients from the water column. A broad spectrum of beneficial bacteria are utilized to remove nutrients like $\mathrm{NH} 4+$, NO 3 - and PO4- from water via biological processes which are effective in natural and man-made ponds, lakes and water features. The microbes will function in a pH range of 5-9, however best results are achieved between 6.5-7.5.

## DIRECTIONS FOR USE

Distribute the product evenly over the entire pond or lake surface. Pond Pucks will sink quickly, normally dissolving in several days. Product is most efficient in aerobic environments, but also effective in low oxygen environments through its use of facultative, anaerobic bacteria. Pond aeration is beneficial by promoting proliferation of aerobic bacteria, but not necessary for product efficacy. If an algaecide has been applied, wait a minimum of 14 days before applying Pond Pucks to reestablish the beneficial microbial populations compromised by the algaecide.

## WATER VOLUME

Rates are based on the volume of water to be treated and the severity of the problem. Water volume is measured in "acre-feet" (one acre-foot = 325,000 gallons of water). Use the following formulas to determine the total volume (in acre-feet) of a body of water:
Number of gallons = Length (ft.) x Width (ft.) x Average Depth (ft.) $\mathbf{x . 4 8}$
Total acre-feet of water $=$ Number of gallons $\div 325,000$

## APPLICATION RATES \& INTERVALS

## Natural ponds (over 150,000 gallons)

- Preventive Applications (water is mostly clear and not turbid): Begin in the spring when water temperatures reach 450 F. Apply a shock dose, followed by a maintenance dose two weeks later. Continue the maintenance dose at monthly intervals until water temperatures fall below 50o F. If spikes in the nutrient load of the water are experienced during the season (e.g. fall leaf drop, etc.), it maybe necessary to increase the rate or shorten the interval to meet changing environmental conditions (see Remedial Applications).

| Preventative - No Visible Turbidity |  |
| :--- | :--- |
| Shock Dose | 16 pucks / acre-foot |
| Maintenance Dose | 6 pucks / acre-foot / month |

- Remedial Applications (water is slightly to extremely turbid or increased nutrient load is seen or expected):
Shock and maintenance doses are increased proportionally accounting for the increased nutrient load in cloudy or turbid pond water. Application intervals can also be shortened to 14 days to increase the speed of water clarification. Continue remedial application rate/interval until conditions resolve or desired water clarity is realized, then return to the application rates and intervals described in Preventive Applications.

|  | Slight Turbidity | Extreme Turbidity |
| :--- | :--- | :--- |
| Shock Dose | 21 pucks / acre-foot | 26 pucks / acre-foot |
| Maintenance Dose | 10 pucks / acre-foot / <br> month | 13 pucks / acre-foot / month |

Lined ponds (over 150,000 gallons)
Lined, man-made ponds have limited populations of naturally occurring plants and microbes and require more seeded microbes to clear the water column. If water clarity and quality are already compromised in a lined pond, shorten the application interval for the maintenance rate to 14 days from 28 days until conditions resolve.

|  | Rate | No Visible Turbidity | Visible Turbidity |
| :--- | :--- | :--- | :--- |
| Shock Dose | 26 pucks / acre- <br> foot | First application | First application |
| Maintenance <br> Dose | 13 pucks / acre-ft | Begin 14 days after <br> shock treatment and <br> continue at 28 day <br> intervals | Begin 14 days after <br> shock treatment <br> and continue at 14 <br> day intervals until <br> conditions improve |

Small water features, backyard ponds (under 150,000 gallons)
Application interval for the maintenance rate may be shortened to 14 days from 28 days if water quality is already compromised.

|  | Rate | No Visible Turbidity | Visible Turbidity |
| :--- | :--- | :--- | :--- |
| Shock Dose | 1 puck $/ 10,000$ gal | First application | First application |
| Maintenance <br> Dose | 1 puck $/ 10,000$ gal | Begin 14 days after <br> shock treatment and <br> continue at 28 day <br> intervals | Begin 14 days after <br> shock treatment <br> and continue at 14 <br> day intervals until <br> conditions improve |

