BIOREMEDIATION OF LAKES AND PONDS



TECHEMO RS 50-

Progreen Aquatech Energia Solutions Pvt Ltd www.progreenaquatech.in



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TECHEMO-RS50 Pond clarifier is powered by a powerful blend of microbes that utilize organic pollutants in the lake as sources of nutrient and degrade them naturally.

The particulate organic matter from lake pollutants suspended in the liquid are adsorbed on the cell wall. The microbes secrete enzymes, which break down the adsorbed food into simple soluble form, before it can be absorbed into the cell. Thus, the food matter that is absorbed by the cell is metabolized by the microbes.



TECHEMO-RS50 Pond Clarifier is an eco-friendly and natural pond bioremediation and effective lake cleaning product which contains beneficial bacteria that act on built up organic sludge in water bodies. The bacteria in TECHEMO-RS50 Pond Clarifier utilize nitrates and phosphates for growth, making it unavailable for algae & aquatic plants and naturally curbing eutrophication. The bacteria naturally become deactivated once the levels of organic matter in the pond are depleted. Microbes in TECHEMO-RS50 Pond Clarifier reduce sludge layer volumes settled at the pond bottom & improves dissolved oxygen levels. The reduced volume of the sludge promotes better pond water clarity and reduces malodors resulting from hydrogen sulphide and ammonia production from sludge putrefaction. This further helps in lake cleaning. The bacteria naturally adapt to the pond ecosystem and reduce the frequency of treatment. This makes TECHEMO-RS50 Pond Clarifier one of the most effective natural solution for lake cleaning and restoration.

Benefits:

1. Can rapidly decompose organic load in the pond water as well as accumulated sludge, thus improving water & pond bed quality and helps in lake cleaning.

2. Naturally makes nitrates & phosphate unavailable, thus preventing algal blooms.

3. Promotes water clarity as well as prevent malodors from hydrogen sulphide & ammonia.

FOR Lake Bio Remediation/ Lake Cleaning Microbes The beneficial bacteria in TECHEMO Pond clarifier produce potent enzymes that break up complex compounds into smaller particles that can be used by the cell for the purpose of growth and reproduction. The bacteria will multiply and grow as long as there are pollutants in the lake/pond. As the pollution level decreases, so does the growth rate of the bacterial population and eventually they expire or remain in a dormant state in low numbers.

Benefits:

- Efficiently reduces COD & BOD levels.
- Degrades Organic Sludge adequately.
- Stabilizes oxygen levels in pond for fishes to breathe easily.
- Restores the pond ecosystem & improves water clarity.
- Curbs foul Odor.

TECHEMO-RS50 FOR LAKE BIO REMEDIATION/LAKE CLEANING MICROBES PROGREEN AQUATECH ENERGIA SOLUTIONS PVT LTD We are one of the reputed manufacturers of a wide range of Bio Culture Bacteria Solution. Organics in the waste water result in high BOD, COD, TDS and MLSS. They also release odorous substances like H2S, Methane, Ammonia, Acetates, Fatty acids, etc. causing odor problems in the vicinity. The COD and the BOD in the waste water can be reduced either using aerobic degradation or anaerobic degradation process. Quicker removal of such substances helps lowering of the BOD, COD and other parameters to the limits stipulated by the Pollution Control Board. TECHEMO offers a highly specialized aerobic microbial cultures TECHEMO- RS50 to aide in the process of aerobic degradation of organic compounds to reduce COD and BOD, TECHEMO RS50 consisting of multiple cultures of microbes, ideal for organic degradation. TECHEMO -RS50 is a consortium of high efficiency aerobic bacterial and fungal cultures. TECHEMO -RS50 is free of the harmful pathogens. TECHEMO - RS50 microbial consortiums is provided in Liquid form to the customers, using high quality specifically selected powder based attachment medium.allback BENEFITS OF TECHEMO – RS50 Eco-friendly organic product; harmless to human, animal, birds or aquatic life forms. Reduces COD and BOD to great extent rapidly. Reduces colour of the effluent Reduces turbidity Accelerate the flocculation process and

aides settling of the suspended molecules Control odor. TECHEMO-RS50 FOR LAKE BIO REMEDIATION/LAKE CLEANING MICROBES PROGREEN AQUATECH ENERGIA SOLUTIONS PVT LTD

Enzymes Produced*

Protease Lipase Amylase Urease Cellulase Nitrate Reductase pH Range 6 - 10 Temperature range-5°C - 55°C Oxygen requirements- Aerobic

Facultative anaerobe

Ease of handling & use PACKAGING Available in 25 kg and 50 kg Canister. STORAGE Store at cool, dry and dark place. VALIDITY Valid for 12 months when stored in cool, dry and dark APPLICATION place. NOTES Application of TECHEMO – RS50 does not need any expensive installation or modifications of the process equipment. For any type of waste water application, dose 1.0Kg of TECHEMO - RS50 for 10000 liters of waste water at the Pond. The initial incubation period is 48 hrs, After

*High levels of these and other enzymes produced by the bacteria in 1476 result in an extremely effective and versatile blend with many uses and applications

> 48 hrs, a regular continuous input feed can be given to treat continuous inflow of ETP or STP Water.

> PROGREEN delivers cost-effective solutions for your lake restoration, We do not pull something off the shelf to try to fit the requirements. We work with you before and after the sale to provide not only the solution to your problems but results that meet your goals. We look forward to working with you every step of the way.

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