

Technical Data Sheet

BIODYNE - ET

Bio-Kinetizer for ETP and STP



Organics in the waste water result in high BOD, COD, SS, and TDS. They also release odorous substances like H₂S, Methane, Ammonia, Acetates, Fatty acids, etc. causing odor problems in the vicinity. Quicker removal of such substances helps lowering of the BOD, COD and other parameters to the limits stipulated by the Pollution Control Board. It also helps odor control.

What is BIODYNE-ET

BIODYNE-ET is a high-performance product offered by Biomax for Bio-augmentation of ETP and STP. BIODYNE-ET is a balanced blend of high potency bacterial and fungal cultures such as species of Bacillus, Pseudomonas, Aspergillus, etc. The specially selected, industrially significant, and acclimated strains of non-GM microbes are rich in the enzyme systems to digest most organics such as carbohydrates, fats, fibers, proteins, oils and some of the hydrocarbons. The microbes in BIODYNE-ET release much more enzymes as compared to the wild type of microbes found in cow dung or city sewage commonly used in ETP or STP. Therefore, a relatively small dose of this high-performance product can significantly affect the overall performance of an ETP. The rapid action product BIODYNE-ET is free of the pathogens E coli & Salmonella.

Self-multiplying for rapid action:

The bacteria in BIODYNE-ET get into action immediately as they are added to the ETP or STP. Even as they perform their assigned roles, they start rapidly multiplying themselves in the plant. Some bacteria double in number within a short span of an hour under favorable conditions. Thus, the synergistic action amongst these bacteria and their self-multiplying ability enhances the release of enzymes. This in turn improves the performance of original product in preventing occlusions, attacking and degrading organics in the treatment system.

Benefits of BIODYNE –ET:

- Ready to use concentrated liquid product. No preparation required.
- No modification of process or equipments required.
- Improves floc formation and settling of floc in the final clarifier.
- Effectively handles shock loads.
- Quickly lowers BOD, COD, TDS and SS in the final effluents when used for ETP or STP.
- Rapid recovery time from system upsets.
- Increases the wastewater treatment systems capacity.
- Enhances the stability of wastewater treatment systems.
- Helps odor control.
- Environment friendly, biodegradable product with broader activity spectrum.
- Can conditionize and stabilize water bodies where sewage is allowed to flow in.

Specifications:

- FORM: Aqueous liquid.
- COLOR: Amber – brown.
- ODOR: Organic.

- COMPOSITION: Bacteria and unicellular fungi.
- PLATE COUNT: 1 billion (1×10^9) c.f.u/ml
- pH: 6.7 (+/- 0.3).

Packaging: 5 liters carboys.

Storage: Store at cool and dark place.

Validity: Valid for 18 months when stored in cool and dark place.

Application Notes:

Normal preventive maintenance dose of BIODYNE-ET

- Measure the total organic wastewater flowing into the waste treatment system.
- Add BIODYNE-ET at the rate of 1 - 10 p.p.m of the total volume per day.
- For more uniform distribution, add measured amount of BIODYNE-ET to about 20 liters of water in a bucket and add to the aerated tank at various locations.
- The point of application should be in an area which allows the product the maximum contact time in the system.

Trouble shooting or plant rejuvenation:

- Use 50 -100 p.p.m. for 3 -5 days, depending up on the extent of damage.
- After restoration of the normalcy, use the normal preventive dose of 1 – 10 p.p.m.

The 'preventive' and the 'rejuvenation' dose are indicative figures. The exact dose varies with plant. It is recommended to decide with trials, starting from the recommended dose.

Process parameters for effective performance of the preventative maintenance dose:

- BOD ranges of up to 2500 mg/l.
- Retention time of 24 hrs.
- pH in the range of 5 to 9. Ideal pH near neutral (6 to 7).
- Temperature 15 – 60°C. Ideal temperature 30 - 40°C.
- Dissolved Oxygen: 2 – 3 p.p.m.
- Carbon/Nitrogen ratio: 10:1 to 20:1.
- Water depth ideal up to 3 meters.

Where to use BIODYNE-ET:

BIODYNE-ET is ideal for ETP, STP and CETP. BIODYNE-ET can be used also for treatment of lakes, ponds and other water bodies. It is recommended also for Leachate treatment.

BIODYNE-ET is a Low Dose, Rapid Action product.

BIODYNE-ET is made of High-Performance Microbial Cultures.

BIODYNE-ET improves the Efficiency of Biotreatment processes.