SepTreat™
Bioculture

M.B.P.L™ MOTHEREARTH
BIOTECH PVT. LTD.

AEROBIC

SepTreat AEROBIC

SepTreat AEROBIC prides itself on its impressive collection of bacteria strains that have been carefully chosen for their exceptional abilities in sewage treatment. These microorganisms excel at decomposing the intricate organic substances typically present in sewage. The selected bacteria strains are not only strong and durable, but they also guarantee consistent and reliable performance, even in the face of difficult circumstances. This unwavering dependability reduces the occurrence of downtime and optimizes the capacity for sewage treatment.

SepTreat AEROBIC contains specialized microorganisms that have proven to be highly efficient in the treatment of different types of pollutants commonly found in wastewater entering STP plants. These pollutants include kitchen oils, surfactants, excessive urine ammonia, and human fecal waste. The unique microorganisms present in SepTreat possess the remarkable capability to degrade complex organic compounds, transforming them into simpler forms.

ELIMINATES YELLOW DISCOLORATION AND AMMONIA

SepTreat microbial culture is composed of a diverse range of naturally selected microorganisms that work together to break down nutrients like ammonia, nitrogen, phosphorus, and other organic compounds. By removing ammonia, the formation of nitrite and nitrate is halted, which is a significant contributor to the depletion of dissolved oxygen in biological systems due to the reaction with ammonia. Animal protein (such as meat and blood), urea, and amino acids are among the biological sources of ammonia. Additionally, ammonia can be introduced into water bodies through various industrial and agricultural activities. These activities include the use of fertilizers, corrosion inhibitors, production process chemicals, and cleaning chemicals. After the nutrient is removed, the MLSS experiences a swift growth, leading to enhanced clarity and the elimination of yellowness from the treated water.

MANAGES THE ODOR CAUSED BY HYDROGEN SULFIDE GAS

Hydrogen Sulfide (H2S) is a gas that can be detected even at very low concentrations. It is known for its toxicity and its ability to corrode various materials used in the construction of sewer and treatment plants. This gas is a significant contributor to the odor in wastewater treatment systems. The odor in these systems is mainly caused by small, volatile molecules with molecular weights ranging from 30 to 50 g/mole. These molecules are produced through the anaerobic decomposition of organic matter containing sulfur and nitrogen. In addition to hydrogen sulfide, other inorganic gases commonly produced during the decomposition of domestic wastewater include ammonia, carbon dioxide, and methane. Hydrogen sulfide is widely recognized as the predominant odorous gas linked to residential wastewater systems. It is identifiable by its foul smell reminiscent of rotten eggs, highly poisonous, and capable of corroding various metals including iron, zinc, copper, lead, and cadmium. The circumstances conducive to the creation of H2S typically promote the generation of additional unpleasant organic compounds. Consequently, addressing hydrogen sulfide odor concerns can frequently address other odor-related issues simultaneously. Sulfur-oxidizing bacteria (SOB) are employed for the elimination of H2S. Due to their reliance on H2S as the main substrate, these bacteria demonstrate a rapid oxidation rate and a high specific growth rate when exposed to this compound.

BENEFITS OF USING SepTreat AEROBIC

- Enhances the effectiveness of COD and BOD decomposition.
- The time required for commissioning the STP has been reduced.
- Reduction in the duration needed to commission the STP.
- The MLSS is experiencing a swift growth, with a significant content of MLVSS.
- Halts the advancement of harmful bacteria.
- Cuts down on the overall operational costs.
- Reduces the amount of sludge produced.
- No changes to the infrastructure of the current plant are needed.
- Improving Stability in the Face of Shock Loads

AREAS OF APPLICATION

- ASP - Activated Sludge Process
- E-ASP- Extended Aeration Process
- SBR - Sequencing Batch Reactor
- MBBR - Moving Bed Blo Reactor
- MBR- Membrane Blo Reactor

PERFORMANCE PARAMETERS

pH	6.5-7.5
Temperature	5°C - 55°C
Reactivation Rate	99% after addition to water
Concentration	Highly Concentrated
Shelf Life	1 Years

PHYSICAL STATES AND THEIR FEATURES

Physical States	LIQUID	POWDER
Appearance	Tortilla brown	Swiss coffe brown
Odor	Smell of media & micro organisms is present	Odorless
Moisture Content	100%	15% - 17%
Mesh Size	N/A	0.4 mm – 0.8 mm
Packaging	50 ltr drum, 1 ltr bottle	1 kg Aluminum Standing Pouch

APPLICATION MATRIX

- Merge 1 kilogram of SepTreat AEROBIC Bioculture with 1 kilogram of liquid jaggery, and subsequently add this combination to 100 liters of feed water. (2Kg in 200 Litres & so on...)

DOSAGE SCHEDULE

- The quantity needed daily is determined by the volume of wastewater and the organic load.
- However, the ratio between the amount of water to be used and the odor control solution also depends on the intensity of the odor at different places