

**bio reme**<sup>®</sup>  
Bioculture



**Greencraft Labs**  
Private Limited

STP

# WHAT IS BIO REME STP?

Bio Reme STP consists of a wide variety naturally selected bacteria composition which is used to degrade organic compounds from sewage. Microbes' combination in Bio Reme (STP) is specialized strains non-genetically engineered species that are very useful in the treatment process in a very unique way to ensure that there is no impact on the surroundings. The bacteria degrades the pollutants (BOD, COD, proteins, carbohydrates etc.) in the wastewater and then convert it into energy that can be used to grow and reproduce.



Specialize bacterial strains in Bioreme helps to treat different pollutant present in sewage like oils from kitchens, detergents from bathrooms, ammonia from excess urine and human fecal waste. Bio Reme microbes are competent of breaking complex organic compounds into their simpler form.

### **Control odour from Hydrogen Sulphide (H<sub>2</sub>S)**

Hydrogen sulfide (H<sub>2</sub>S), a gas is detectable at a very low concentration and notable for both its toxicity and its ability to corrode various materials used in sewer and treatment plant construction, is a major source of odor in wastewater treatment systems. Odor-producing substances found in the domestic wastewater and sludge are small, relatively volatile molecules having molecular weights ranging between 30 to 150 g/mole. Most of these substances are the results of anaerobic decomposition of organic matter containing sulphur and nitrogen. Inorganic gases produced from domestic wastewater decomposition commonly include hydrogen sulphide, ammonia, carbon dioxide, and methane. Hydrogen sulphide is the most commonly known and prevalent odorous gas associated with domestic wastewater collection and treatment systems. It has a characteristic rotten egg odor, extremely toxic, and is corrosive to metals such as iron, zinc, copper, lead and cadmium. The conditions leading to H<sub>2</sub>S formation generally favors the production of other malodorous organic compounds. Thus, solving H<sub>2</sub>S odor problems can often solve other odor problems as well. *Desulfovibrio desulfuricans*, found in the digestive tract of both man and animals, is the most common bacteria which produce H<sub>2</sub>S under anaerobic conditions. These obligate anaerobes use sulfate as their oxygen source, ammonia as their sole source of nitrogen, and various forms of organic matter as a food supply including amino acids, carbohydrates, organic acids, etc., when in an oxygen limited environment. These reactions often take place in the slime layer on collection pipes and in the sludge of lagoons, etc.

These bacteria cannot compete well with the facultative anaerobic strains in Bio reme STP formulas, which use nitrate as a hydrogen acceptor and reproduce more quickly than the sulfur-reducing pure anaerobes.

### **Remove yellowness & ammonia due to excess urine from treated water:**

Bio Reme STP also consists of a wide variety naturally selected bacterial consortium such as *Nitrobacter winogradskyi* and *Nitrosomonas europaea* which is used to degrade Nutrients (Ammonia, Nitrogen, Phosphorus) and various other organic compounds, thus removal of ammonia stops formation of nitrite and nitrate which is major factor for deficiency of dissolve oxygen in biological system due to reaction with ammonia, hence after removal of nutrient there is rapid growth of MLSS which increases the clarity and remove yellowness from treated water.



## Benefits of Bio reme STP

- Degrades high COD & BOD.
- Rapidly increases in MLSS & MLVSS.
- Reduces foaming.
- Suppresses harmful bacterial growth.
- Reduces plant commissioning time.
- Reduces oil, detergent and ammonia.
- Stabilizes shock load.
- Reduces odour from plant.
- Reduces excess sludge generation.
- Improves overall efficiency of the plant.
- Effective under most environment condition.

## Area of Application

- Membrane Bio reactor
- Activated sludge
- Sequencing batch reactor
- Moving bed bio reactor
- Extended Aeration system

## Performance Properties

<b>pH</b>	6.5-7.5
<b>Temperature</b>	5 to 55°C
<b>Reactivation Rate</b>	99 % after addition to water
<b>Concentration</b>	Highly Concentrated
<b>Shelf Life</b>	2 years

## Application Matrix

- Mix Bio Reme 1 kg powder in 20 Liter water (Prefer normal temperature).
- Stir well and remain in bucket for 30 minutes (for bacteria activation)
- Directly Dose at inlet of aeration tank.

## Physical Properties

<b>Appearance</b>	Off White Colour
<b>Physical State</b>	Powdered Form
<b>Odour</b>	Odourless
<b>Moisture Content</b>	6-7 %
<b>Mesh Size</b>	0.6 mm
<b>Packaging</b>	1 kg Aluminium zip lock

## Dosage Schedule

Depend upon the organic load, contaminants and volume of waste water.



# Testing & Certifications

- ✓ Certified Non Toxic
- ✓ Certified Temperature Range
- ✓ Certified Non GMO
- ✓ Certified Non Pathogenic
- ✓ Tested for Toxic Metals
- ✓ Bioassay on Fish Done

## MAHARASHTRA- PUNE

R05, Gulmarg,  
Pune-Mumbai Highway,  
Baner, Pune-411045  
+91-9023882028  
+91-9503051200  
sales@greencraftlabs.in

## NEW DELHI

216, Jaina Tower  
2, District centre,  
Janakpuri -110058,  
New Delhi  
+91-9503653500  
+91-7488567070  
sales@greencraftlabs.in

## PHILIPPINES

No. 21 Emerald St., Silverland,  
Quezon City, Philippines  
+63 2 275 7206  
+63 02 8275 7206  
anil@greencraftlabs.in

