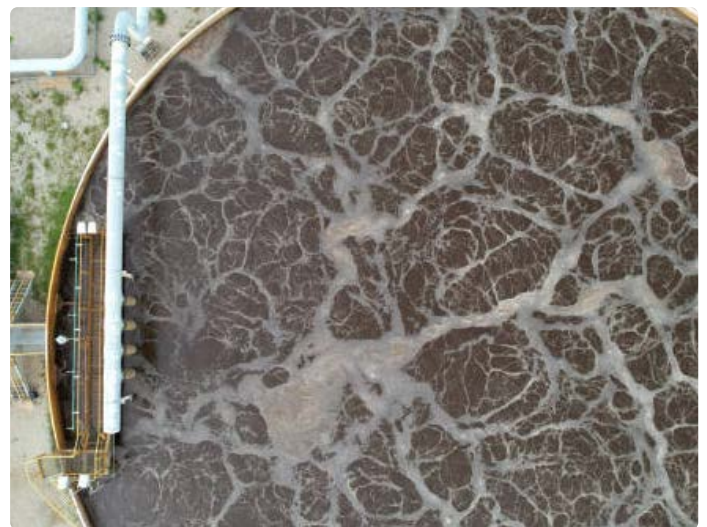


Mykrobak STP

What is Mykrobak STP (Sewage Treatment Plants)?

Mykrobak STP consists of a wide variety naturally selected bacteria composition which is used to degrade organic compounds from sewage. Microbes' combination in Mykrobak (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 Mykrobak helps to treat different pollutant present in sewage like oils from kitchens, detergents from bathrooms, ammonia from excess urine and human fecal waste. Mykrobak microbes are competent of breaking complex organic compounds into their simpler form.



Control odour from Hydrogen Sulphide (H₂S)

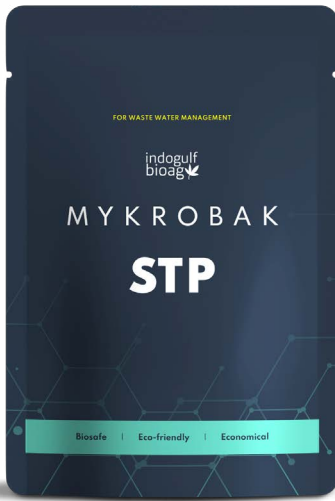
Hydrogen sulfide (H₂S), a gas is detectable at a very low concentration and notable for both its toxicity and its ability to corrode various materials used in sewer and treatment plant construction, is a major source of odor in wastewater treatment systems. Odor-producing substances found in the domestic 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 H₂S formation generally favors the production of other malodorous organic compounds. Thus, solving H₂S 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 H₂S 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 Mykrobak 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:

Mykrobak 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 dissolved 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 Mykrobak STP

- Degrades high COD & BOD
- Rapidly increases in MLSS & MLVSS
- Breakdowns Complex solvent and other compounds in simpler form
- Suppresses harmful bacterial growth
- Reduces plant commissioning time
- Multiple strains of bacteria
- Stabilizes shock load
- Reduces odour from plant
- Works under low BOD: COD ratio
- Improves overall efficiency of the plant
- Effective under most environmental condition

Performance properties	
PH	6.5 – 7.5
Temperature	5 to 55°C
Reactivation Rate	99% After addition to water
Concentration	Highly Concentrated
Shelf Life	2 years

Physical properties	
Appearance	Off White Colour
Physical State	Powdered Form
Odour	Odourless
Moisture Content	6-7%
Mesh Size	0.6 mm
Packaging	1 kg Aluminum zip lock

Dosage Schedule

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

Area of Application

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

Application Matrix

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

