Mykrobak **Fog**

What is Mykrobak Fog?

MYKROBAK FOG is a combination of highly active microbes that are designed to accelerate liquefaction and digestion of food-based Fats, Oils and Greases (also known as "FOG:) found in grease traps, collection systems and wastewater treatment systems (activated sludge, RBC, DAF, etc). These isolated microbial strains contains a specially formulated range of adapted high-performance microorganisms such as 4 gram-positive Bacillus strains and 4 gram-negative vegetative strains for Rapid grease digester for drains, septic tanks and 10 gram-positive Bacillus strains and 4 gram-negative strains for Industrial grease digester along with 6 gram-positive Bacillus strains and 5 gram-negative strains for Severe grease control in lift stations, sump pumps, wet wells, large hotel and restaurant grease traps.

MYKROBAK FOG specially developed for the use in the biological wastewater treatment with a high content of greases, fats and oils. MYKROBAK contains surface tension depressants and penetrants that loose and liquefy heavy grease deposits, thereby assisting the biodegradation. Degradation of Fat oil & grease begins with the breakdown of the complex molecule by extracellular enzymes produced by MYKROBAK microorganisms. Microorganisms produce various classes of lipolytic enzymes including true lipases and esterase's (carboxylesterases). Other compounds produced by microorganisms and are useful in the process of biodegradation of FOG and biosurfactants, etc. After the FOG has been exposed to the bio surfactant further the fatty acids and glycerol are consumed by the MYKROBAK microorganisms that are capable of utilizing them.

Fats

Fats are composed of esters of glycerol and fatty acids. Bacteria utilize fats after the hydrolysis of the ester bond. Extracellular enzymes, called esterases and lipases, are responsible for this reaction. The end result is the formation of glycerol and free fatty acids. After fatty acids are liberated by the enzymatic action of esterase and lipase, the next step is of breakdown is called Beta Oxidation, a process in which two carbons split off at a time. The first step in the oxidation of fatty acids is initiated by Coenzyme A, leading to the release of Acetyl Co-A, that results into a fatty acid which is reduced by two carbons. This process is then repeated, following the Tricarboxylic acid cycle until the end results are carbon dioxide and water or they follow the glyoxylate pathway producing additional cell constituents.

The grease and fats are degraded completely by this method, not just solubilized to move downstream causing trouble in the collection systems or municipal waste treatment plants. MYKROBAK FOG degrades formulations of utilize microbes that produces esterase, lipase and fatty acid degradation together with catalysts that enhances the performance. Using a pure surfactant to demonstrate apparent solubilization of foods, fats and oils are “magic trick” that does not demonstrate a true breakdown of fats and oils. To verify esterase and lipase enzyme activity, use MYKROBAK FOG and see results of lipase & esterase test results. 8 strains of gram-positive Bacillus in a Powder formula degrade food fats and grease and oxidizes hydrogen sulphide odor in wet wells, grease traps, sump pumps and waste loading zone. Improved grease digestion! No unpleasant odor for home use in drains. Improved sulphide oxidation, grease degrading and fatty acid degrading.

Benefits of Mykrobak Fog

- Degrades Fat Oil & Grease from waste water
- Reduces accumulation of organic matter on the surface of tank
- Breakdowns complex chain molecular
- Structure of oil into simpler form
- Reduces foaming in biological tank
- Multiple strains of bacteria for effective result
- Reduces odour from plant
- Improves overall efficiency of the plant
- Effective under most of the environmental conditions
- Easy to store, handle and transport

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 FOG content, contaminants and volume of waste water.

Area of Application

- Activated sludge Process
- Sequencing batch reactor
- Moving bed bio reactor
- Extended Aeration system
- Oil & grease Trap

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

indogulf bioag

BIOTECH DIVISION OF INDO GULF COMPANY
101, Blue Bell Building, Sitaram Compound,
Crawford Market, Mumbai - 400001 India

T: +91-22 2345 5220 **E:** biotech@indogulfgroup.com
F: +91-22-23476536 **W:** www.indogulfbioag.com