

**EffuTreat**<sup>TM</sup>  
Bioculture

**M**<sup>TM</sup>  
M.B.PL

**MOTHEREARTH**

BIOTECH PVT. LTD.

**TEXTILE**

## WASTEWATER TREATMENT FOR TEXTILE INDUSTRY

A significant volume of water is utilized in the production of textiles, and the resulting wastewater contains a substantial number of harmful substances that can negatively impact both the environment and human health if not properly treated. The primary pollutants found in textile wastewater include high levels of suspended solids, organic and inorganic pollutants, chemicals, dyes, turbidity, heavy metals, chemical oxygen demand (COD), biological oxygen demand (BOD), acidity, nitrogen, and other soluble substances. To address this issue, textile industrial wastewater treatment plants employ primary, secondary, and tertiary treatment methods.

The primary treatment stage focuses on removing excessive amounts of oil and grease, coarse suspended materials, turbidity, and color from the wastewater. Following primary treatment, the secondary treatment stage primarily aims to reduce the biological oxygen demand (BOD) and chemical oxygen demand (COD).

Commonly used secondary treatment methods include aerated lagoons, clarifiers, activated sludge processes, and oxidation ditches. In some cases, textile industry wastewater may also require tertiary treatment methods to eliminate specific contaminants or to enable the reuse of the treated effluent.

Motherearth Biotech Pvt. Ltd. takes pride in its proficient and well-informed team, possessing vast expertise in providing customized organic remedies for the treatment of wastewater in the textile industry. This is achieved through the utilization of our in-house manufactured product, EffuTreat Textile.

### WHAT'S EffuTreat TEXTILE ?

EffuTreat Textile is comprised of a diverse range of carefully selected bacterial consortium, including *Pseudomonas* sp., *Achromobacter* sp., and *Aspergillus fumigates*. These microorganisms are unique to EffuTreat Textile and are known for their ability to decolorize dye effluent, making them ideal for treating such wastewater. The EffuTreat microbe is capable of breaking down complex compounds like starch, cellulose, PVA, and lignin into simpler forms, making it a valuable asset in major textile industries such as Denims, cottons, yarns, polyester, silk, nylons, rayon, bleaching, and dyeing. Additionally, it can degrade dyestuffs, thereby reducing the toxicity of wastewaters.

These non-genetically engineered microbes are natural recyclers, transforming toxic organic compounds into harmless products like carbon dioxide and water. They have adapted to thrive in textile effluent through acclimatization and fermentation, demonstrating high efficiency in reducing COD, BOD, and natural colors.



## **BENEFITS OF USING EffuTreat TEXTILE:**

- Degrades high C.O.D and B.O.D
- Rapidly increases MLSS and MLVSS count
- Reduces foaming
- Reduces organic color from effluent
- Suppresses harmful bacterial growth
- Reduces plant commissioning time
- Multiple strains of bacteria for effective results
- Stabilizes shock load
- Reduces odour from plant
- Reduces excess sludge generation
- Improves overall efficiency of the plant
- Effective under most environmental conditions

## **AREAS OF APPLICATION**

- Activated Sludge
- Sequencing Batch Reactor
- Moving Bed Bio Reactor
- Extended Aeration System
- Membrane Bio 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 EffuTreat TEXTILE 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.
- The proportion of water required in relation to the EffuTreat TEXTILE solution is contingent upon the characteristics of the influent wastewater.