

EcoBac®

WASTEWATER BIOAUGMENTATION



Wastewater often has excessive levels of SS (Suspended solids), BOD (Biological oxygen demand) content, FOG (Fats, oils and greases), as well as high levels of nitrates, polymers and other contaminants. Wastewater treatment professionals must deal with the build-up of contaminants in treatment plants and collection facilities as these situations are environmentally harmful, as well as being detrimental to the performance of treatment systems, and often require costly mechanical removal and disposal. Managing wastewater effluent quality is paramount to complying with current discharge legislation and meeting resource consent standards, as well as avoiding the risk of administrative penalties.

EcoBac

A blend of bacterial cultures and nutrients, formulated to enhance and speed up the rate of the biodegradation and elimination of grease and sludge, as well as other organic pollutants, in all types of municipal and industrial wastewater treatment plants and systems. Existing biological colonies may already be able to break down waste and contaminants, but inefficiently and slowly, hence the need to augment.

- **SIGNIFICANTLY IMPROVES EFFLUENT QUALITY**
- **ENHANCES DIGESTION OF GREASE & SLUDGE**
- **REDUCES TSS & BOD CONTENT**
- **CONTROLS AMMONIA LEVELS**
- **CONTROLS FOUL ODOURS**
- **AIDS ENVIRONMENTAL COMPLIANCE**
- **OPTIMISES SYSTEM EFFICIENCY & PERFORMANCE**
- **HELPS TO AVOID COSTLY REMOVAL & DISPOSAL OF WASTE**

FEATURES & BENEFITS

EcoBac = Function-focused beneficial bacteria species and nutrients are used to augment existing bacterial populations, making them more stable and resistant to upsets. When utilised according to appropriate directions, large amounts of lipase, amylase, protease and cellulase are formed. These enzymes provide extra solubilisation activity to effectively digest grease and sludge, as well as other organic contaminants, to enhance the quality and safety of effluent.

Our products are completely natural, non-engineered and non-pathogenic bacteria that have been selected for their ability to solubilise and digest greases, organic sludge and other contaminants.

- **SAFE – Non-pathogenic & non-hazardous**
- **EASY TO IMPLEMENT – Minimal plant modification necessary & only minutes per day are required to dose solution**
- **COST-EFFECTIVE – Offers significant savings**
- **RAPID BENEFICIAL RESULTS – Fast acting**

TYPICAL APPLICATIONS

Our bacterial cultures are typically used in wastewater treatment plants for the following applications and industries:

- **Municipal**
- **Food & Beverage**
- **Meat Processing**
- **Engineering**

- **Seeding new treatment systems**
- **Re-seeding bio-filters**
- **BOD & SS reduction**
- **Nitrification & denitrification**
- **Odour control**

Overloaded or under-designed WWTPs are mostly unable to meet with effluent parameters set by authorities. The common method for increasing the capacity of these plants involves a costly investment for building new facilities, clarifiers, or upgrading the mechanical and electrical parts etc. Our bioaugmentation technologies provide a solution for the owners and operators of such plants to increase the treatment capacity of their facilities without high-cost investments. We are often able to increase the plant's treatment capacity by at least 30-40% by only interacting in the biological step. By bioaugmentation, we modify the existing microbial community to enable the WWTP to treat a much higher volume than before, as well as to optimise the plant's efficiency and performance.

Our programs involve the use of a bioreactor tank and a supply of specified bacterial cultures, along with the technology to grow vast numbers of the bacteria at point-of-use for safe, easy and cost-effective dosage directly to the affected areas as required.

EcoBac

Alpha Environmental Ltd offers the know-how, experience and technical support to assess the situational conditions at your facility, enabling us to formulate customised solutions for your specific requirements. For example, if you have a problem with your odour control bio-filter needing re-seeding with the correct bacterial microbes, we can enable you to rapidly get it functioning efficiently again.

Our biotechnology has been proven and is trusted by numerous WWTPs around the globe, ranging from small package plants to large municipal plants with flows up to 800,000 cubic meters per day.

ALPHA ENVIRONMENTAL LTD

PO Box 3581

Gladstone Road

Richmond, Nelson,

7050

Tel: 03-544 4365

Email: sales.alphaenviro@outlook.com

Web: www.alphaenvironmental.co.nz

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