

BFL 5400GC

The effluent arising from the production of organic chemicals can contain a very wide range of compounds. Due to the nature of the processes used in chemical synthesis there can be major variations in the composition of the influent to the treatment plant.

Some of the industries that produce a wide range of aliphatic and aromatic chemicals requiring treatment include:-

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| Pharmaceuticals | Polymers |
| Solvent production | Tanneries |
| Agrochemicals | Paints |
| Petrochemicals | Textiles |
| Steel making | Printing inks |

Since there is such a wide diversity of industries and of compounds present in these wastewaters it is important to have a microbial product with a wide range of strains capable of dealing with the problem. Such a product is BFL 5400GC.



The situations in which the use of BFL 5400GC is beneficial include:-

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| Plant start up | Re-seeding |
| Poor settlement | Poor BOD/COD removal |
| Overloaded plants | Shock recovery |
| Removal of toxicity to nitrification | Sludge reduction |

BioFuture harnesses the power of environmental biotechnology to deal with the problems in the treatment of effluent from the chemical industry. This is achieved by the use of products such as BFL 5400GC that contain a range of specialised microbes with the ability to efficiently degrade a broad range of organic chemicals.

What is BFL 5400GC?

BFL 5400GC is composed of a carefully selected blend of natural micro-organisms that have the ability to efficiently degrade a wide range of organic chemicals. These include solvents, amines, aromatics, aliphatic hydrocarbons, pharmaceutical intermediates, etc. The use of a wide range of strains ensures that the range of organic chemicals found in many chemical effluents can be effectively degraded. The strains chosen for the formulation can produce the complete range of enzymes required to degrade complex chemicals. These strains grow at a fast rate so that they can quickly establish dominance in the biomass, which is the heart of the wastewater treatment system.

The product contains strains that have the ability to produce good floc structure. This helps to produce a



biomass that will settle well and produce a clear final effluent. Since many chemicals can prove to be toxic to the micro-

organisms that are responsible for nitrification it is important to efficiently degrade these compounds so that toxicity to nitrifiers is reduced. The cultures in BFL 5400GC can provide this function. This is a key benefit from the use of the product since nitrification can be slow to restore once it is lost. The strains in the

product have been isolated from the natural environment so they work in harmony with the existing biomass and increase its overall efficiency so that plant performance is restored as quickly as possible.

The type of systems in which BFL 5400GC can be used include:-

Activated sludge	Oxidation ditches
Biotowers	MBBR/IFAS
Aerated lagoons	Membrane BioReactors
SBR's	Pure oxygen systems

The microbial strains are produced as single pure cultures, harvested, stabilised on a cereal base and blended together to produce the final product. Extensive checks are conducted throughout the process to ensure purity and quality of the product.

Directions for use

The product as supplied is on a cereal base so it is important that the bacteria are rehydrated before use. This is achieved by adding the required quantity of product to lukewarm (~30°C) water in a suitable container. Apply 1 part product to 10 parts water, stir well and allow to stand for 1 hour before application. Apply the rehydrated product immediately prior to the aerated section of the treatment plant e.g. into a drain, pump sump or return sludge line.

Since each application is different and has different characteristics it is important to assess the site before deciding on a dosing programme. The BioFuture Technical Department provides assistance in assessing the site and devising a treatment programme.

Product safety

The micro-organisms in BFL 5400GC have all been isolated from natural environments. They have not been genetically modified in any way. These microbial strains have been classified as being harmless to humans, animals and plants. In accordance with EU and WHO guidelines. The product is subjected to independent testing to ensure it is free of Salmonella and other contaminants.

For further information on dosing programmes and product application please

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