



BCI-101

The main problem with the effluent from the processing of vegetable oils such as palm oil, olive oil, rapeseed oil, etc. is the large amounts of oils present. These create major problems by coating drains, pumps, pumping stations, inlet screens and primary clarifiers. In many activated sludge plants excessive quantities of oils can give rise to *Nocardia* foaming which causes major operational problems. While the bulk of the oils are removed in Dissolved Air Flotation (DAF) units or grease interceptors the remainder must be treated in the wastewater treatment system. Other components of the effluent such as plant organic material contribute to an effluent with a high BOD.

Situations in which the use of BCI-101 are beneficial include:-

- ◆ Plant start up
- ◆ Poor settlement
- ◆ Overloaded plants
- ◆ *Nocardia* foaming
- ◆ Poor final effluent quality
- ◆ Shock recovery
- ◆ Bulking sludge
- ◆ Poor oxygen transfer

Bio-Chem harnesses the power of environmental biotechnology to solve the problems by degrading the vegetable oils and other organic materials in an exceptionally efficient manner. BCI-101 uses only harmless, natural micro-organisms that deal with the problem by degrading the organic matter to CO₂ and H₂O in a highly effective and environmentally acceptable way.

What is BCI-101?

BCI-101 consists of a carefully selected blend of natural micro-organisms that have the ability to efficiently degrade vegetable oils and other organic materials in the effluents arising from the vegetable oil extraction industry. The wide range of strains have been specially chosen for their ability to produce the broad range of enzymes required to completely degrade the organic matter. These strains grow at a fast rate so that they can quickly establish dominance in the biological population. The product contains strains that have the ability to produce good floc structure which will settle well and produce a clear final effluent. The strains in the product 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 BCI-101 can be used include:-

- Activated sludge
- Biotowers
- Aerated lagoons
- Oxidation ditches

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. Add 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 Bio-Chem's Technical Department provides assistance in assessing the site and devising a treatment programme.

Product safety

The micro-organisms in BCN-101 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. The product is subjected to independent testing to ensure that it is free of *Salmonella* and other contaminants.

For further information on dosing programmes and product application please contact :-

BIO-CHEM ASIA PACIFIC SDN BHD
59, JALAN 11/118B,
DESA TUN RAZAK INDUSTRIAL PARK,
56000 CHERAS,
KUALA LUMPUR
Tel : 03-91737088
Website : www.bio-chem.com.my
Email : sales@bio-chem.com.my