



INTERACTIVE MICRO-ORGANISMS LABORATORIES

HUMIC WB: BIO-AUGMENTATION¹ SOLUTIONS FOR INDUSTRIAL WASTE WATER TREATMENT

HUMIC is a range of bio-augmentation¹ products developed by IMO Labs using microbial consortia technology.

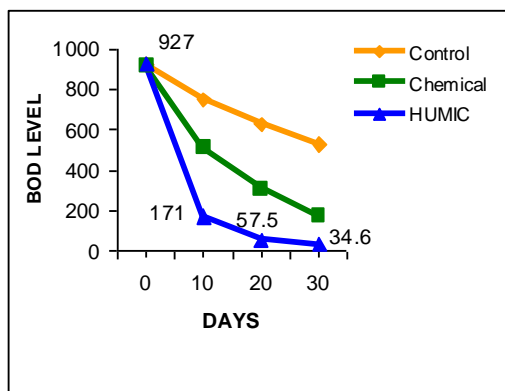
As environmental restrictions tighten, industrial waste treatment plant operators are facing compliance levels that seriously challenge the capabilities of their plants. Upgrading these plants is a costly understanding.

HUMIC WB can provide besieged plant operators with viable and cost-effective solutions to their waste water treatment problems.

Enhanced Reduction of

Biological and Chemical Oxygen Demand

HUMIC WB increases the microbiological diversity and population, hence resulting in very significant improvements of BOD/COD effluent levels.



Comparative BOD Level measurements from an industrial waste water treatment plant without treatment (Control), treatment with chemicals (Chemicals) and treatment with **HUMIC**

Improved Settling of Solids

The **HUMIC WB** microbial consortium creates excellent flocculation, and at the same time, is resistant to the toxicity in the waste water.

HUMIC WB provides a sustained biomass, dispensing the need for expensive organic polymers or inorganic coagulants as settling aids.

Degradation of Compounds

HUMIC WB can also reduce levels of compounds such as phenols, chlorinated aromatics and aromatic hydrocarbons can be reduced, which otherwise would not be possible with the indigenous populations.

Enhanced Denitrification

HUMIC WB contains a potent denitrifying bacteria consortium which is able to overcome nitrification problems encountered in industrial waste water plants with design limitations or suffering toxic shocks. Regular application of **HUMIC WB** results in sustained and continuous denitrification and ammonia removal.

Others

Other areas where **HUMIC WB** offers benefits include odor reduction, oil and grease removal, rapid system start-up and improved tolerance to toxic shock. Additionally, research continues to explore new application areas for this evolving technology.

¹Bio-augmentation is defined as the application of selected microorganisms to enhance the microbial populations of an operating waste treatment facility to improve water quality or lower operating costs.