

# Advance Biotechnologies of Canada

“Advanced Microbiology for a Clean, Safe Environment”

## Bio-Surf

Bio-Surfactant

The bio-surfactants are natural biodegradable complex polymers that are produced directly by the microorganisms through a bacterial fermentation processes. It is applied mostly in oil fields (cleaning of crude oil storage tanks and treatment of sludge in thickeners) or for remediation treatments in sites contaminated by crude oil spills or by hydrocarbon seepages.

These natural surfactants are similar to their synthetic equivalents used in detergents. Bio-surfactants are characterized by better properties when compared with the synthetic chemical used for similar applications in different fields such as the oil industry.

They have, furthermore, greater advantage of being biodegradable and of increasing the efficacy of the different biological sections of the wastewater treatment plant.

### **Application:**

BIO-Surf is a multifunctional product. For this reason please contact your Advance Group representative for specific application rights.

### **Benefits of BIO-SURF:**

In the sludge deriving from the wastewater chemical physical treatment:

- Reduction of the sludge > 50% in comparison with the initial volume.
- Improvement of the sludge setting capacity.
- Recovery up to 90% of the hydrocarbons initially contained in the sludge.
- Recovery up to 90% of the water phase initially contained in the sludge.
- Recovery of water from the sludge itself that can be drained directly in the wastewater treatment plant.
- Significant reduction of the volumes of material to be disposed to landfill and of the corresponding disposal costs.