



## **BIOSURF** BIODISPERSANT

# BIOSURFACTANT WITH HIGH DISPERSING POWER AND ACTS AS A STRONG BIOSTIMULANT TO PROMOTE BIODEGRADATION

### BIOTREATMENT WITH BIOSURF CAN:

- Help disperse surface oil slicks
- Reduce shoreline hydrocarbons deposits
- Disperse submerged crude oil spills
- Help make hydrocarbon bioavailable to microorganisms for biodegradation
- Provides micronutrients to speed up biodegradation

### PRODUCT DESCRIPTION

Biosurf is made up of biosurfactants that are extracted from plants. Its dispersing power makes it a great non-toxic alternative to commonly used synthetic surfactants and dispersants. Our all natural rhamnolipid dispersant is designed to be sprayed onto oil slick, and oil spills on soil and hard surfaces, to accelerate the process of natural dispersion and biodegradation. Our dispersant has molecules which have an affinity for two distinct liquids which do not mix, attacking the interfacial tension between them. A part of the surfactant molecule has an attraction to oil, the other part has an affinity to water. This allows for the dispersing power, and increases the bioavailability to the natural microorganisms that will biodegrade the contaminants.

### SPECIFICATIONS

Description:	Dark brownish liquid
Packaging:	4x4L, 20.37kg, 208.82kg, custom packaging available
Bulk Density:	1.10-1.30 g/mL
pH:	3.5-5.5
Nutrient Content	Contains trace elements such as manganese, boron, iron, magnesium, calcium, potassium, phosphorus, and nitrogen

### FEATURES

#### Oils Slicks

Spraying dispersants may be the only means of removing oil from the sea surface, particularly to remove the residual after mechanical recovery or when mechanical recovery is not possible. Its use is intended to minimize the damage caused by floating oil, for example to birds or sensitive shorelines.

Natural dispersion of an oil slick occurs when waves and other turbulence at the sea surface cause all or part of the slick to break up into droplets and enter into the water column. The addition of dispersants is intended to accelerate this process. The use of BIOSURF allows for a more sustainable method compared to common synthetic dispersants that remain on the ocean bed and enter the food chain by bioaccumulation.



### **Shorelines**

Our biodispersant BIOSURF can also be used on shorelines including beaches, rocks, and sea walls. The very low toxicity make it an ideal product, especially when combined with our aggressive but environmentally benign bacterial agent such as BCP 35S. Shores lines subjected to strong wave action are cleaned quickly and naturally. Re-application will be necessary where dense hydrocarbon deposits have accumulated.

### **Soils**

When dealing with an old oil spill and leak that has been weathered by rain and other environmental factors, the hydrocarbon contaminants become sequestered in the deep pores of soil particles. This reduces the bioavailability of the contaminant to the microorganisms that naturally degrade the oil molecules into harmless by-products. By the addition of a safe and natural plant based biosurfactants BIOSURF, the bioavailability of the contaminant is increased, allowing for higher chances of biological degradation.

## **STORAGE AND HANDLING**

Store in a cool dry location. Do not drink. Avoid contact with eyes. See SDS. Bionetix® will not be held responsible for quality issues after 6 months of storage.

## **APPLICATION**

BIOSURF should be diluted 1 part in 9 parts of water and applied at a rate of 10L per 100m<sup>2</sup> of surface area whether it is for an oil slick on water or shoreline. For soil remediation, product can be injected in contaminated areas. For best results, combine BIOSURF with BCP 35S or BCP 35M for either soil or marine applications respectively. The BCP microbial product can be diluted into the BIOSURF blend 24 hours prior to application to allow activation of the spores. Contact your BIONETIX® representative for further information.