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BioRem-2000 Oil Digester - Soil™

Description

- ◆ A powerful blend of 12 strains of microbes, enzymes and natural botanical nutrients designed to digest hydrocarbons in soil remediation applications.
- ◆ Treats a wide range of hydrocarbons, such as crude oil, gasoline, drilling mud, diesel and more.
- ◆ Biologically converts hydrocarbons into carbon dioxide and water.
- ◆ Available in a ready-to-use liquid formula.
- ◆ Changes the surface of the soil particles from hydrophobic to hydrophilic.
- ◆ Highly effective on free-product.
- ◆ All-natural ingredients that FDA-GRAS lists as safe for plants, animals, aquatic life and humans.

Technology

Number of Different Microbial Strains:	12
Microbial Count:	50 Billion/gram
Microbial Characteristic:	All GRAS Listed
Number of Enzyme Species:	7
Enzyme Activity:	6,000 u/mg.
pH Activity Range:	5-11 pH
Appearance:	Amber Liquid
Bioluminescence Test:	Positive for Living Cells
Salmonella:	Negative
Listeria:	Negative
Phosphorous:	Non-Detect

Technical Information

Usage	Dilution Ratio	Ready to use
Physical Properties	Appearance	Liquid
	Color	Amber
	Fragrance	None
	pH	7
	Phosphate Content	None
	Shelf Life	Minimum 3 Year

Advantages

BioRem-2000 Oil Digester - Soil™ is a mixture of 12 strains of naturally-occurring microbes and seven enzymes coupled with adapted microbial nutrients used to remediate hydrocarbons. The microbes have the capability to produce extracellular enzymes which lead to the breakdown of hydrocarbons compounds, which transform them into carbon sources for the microbes.

The BioRem-2000 Oil Digester - Soil™ use all-natural Nano-Technology to break down the adsorption of hydrocarbons in groundwater and aquifer matrix. The Nano Technology breaks down macroscopic clumps of petroleum into smaller units while increasing the surface area.

Usage Guide

Topical Spills: BioRem-2000 Oil Digester - Soil™ is applied by saturating the contaminated soil and tilling to ensure complete coverage and increase oxygen levels. It is essential to ensure the soil is kept moist during the bioremediation process which can be accomplished by an irrigation/sprinkler system. Additional applications may be necessary to achieve the desired TPH levels depending on site conditions.

Ex-Situ Applications: Common methods of ex-situ are land farming and soil washing. Land farming consists of spraying contaminated soils with microbes and nutrients. The soil is periodically tilled to ensure complete saturation and provide oxygen. Soil washing is a process in which contaminated soil is excavated, screened to remove debris and then washed with BioRem-2000 Oil Digester - Soil™ to bioremediate the contaminants.

In-Situ Applications: In situations where removal of the soil is impractical, BioRem-2000 Oil Digester - Soil™ can be used to treat the contaminant in place without disturbing the site. This process usually requires pumping of BioRem-2000 Oil Digester - Soil™, oxygen (air sparging) and nutrients under pressure into the soil through injection wells.