# 8608-055 Soil Treatment Oil Digestant

## **Water Treatment Solutions**

## **Description**

A complete bioremediation system that provides the materials for a safe, effective, easy to use and significantly lower-cost alternative to off-site disposal of hydrocarbon-contaminated soils.

A mixture of naturally-occurring bacteria and enzymes coupled with adapted microbial nutrients used to remediate hydrocarbons in topical soil applications.

A powerful blend of 12 strains of microbes and natural botanical nutrients designed to digest hydrocarbons in soil and ground water remediation applications.

Treats a wide range of petroleum-derived products and hydrocarbon wastes, such as crude oil, gasoline, creosote, coal tar, drilling mud, diesel, bunker fuels, kerosene and multiple ring aromatics.

Changes the surface of particles from hydrophobic to hydrophilic.

Converts hydrocarbons into carbon dioxide, water and biomass.

It is non-pathogenic, non-toxic, non-carcinogenic and biodegradable.

# **Technology Profile**

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
Bioluminecse Test	Positive for Living Cells
Salmonella	Negative
Listeria	Negative
Phosphorous	Non-Detect

#### **Technical Information**

Usage	Dilution Ratio	RTU
	Appearance	Liquid
Physical	Color	Amber
Properties	Fragrance	None
	рН	7
	Shelf Life	Minimum 1 Year
Packaging	8608-055	55 gal.

### **Application**

There is no set formula that will be effective in every system. All is dependent on the type of environment, the biological and chemical make-up of the system. Please consult with distributor and/or manufacturer for the correct dosage for your system.

## **Advantages**

The microbes have the capability to produce extracellular enzymes which lead to the breakdown of petroleum compounds, which transforms them into food sources for the microbes.

The biodegradation of petroleum-based compounds can be accomplished both in oxygen-rich (aerobic) and in oxygen-poor (anaerobic) environments. The extracellular enzymes necessary to break down organic molecules for microbial growth are readily available in Oil Digester $^{\text{TM}}$ .

Oil Digester<sup>TM</sup> provides a rich mixture of extracellular enzymes capable of initiating and catalyzing the breakdown of a wide variety of petroleum compounds.

Oil Digester™ contains organic Nano Technology to break down the adsorption of petroleum onto soil particles. This allows the hydrocarbons to move more freely through the soil pores where less mobile microbial community lives. The Nano Technology breaks down macroscopic clumps of petroleum into smaller units while increasing the surface area. The Nano Technology action also helps the microbes to migrate through the soil matrix more easily. The unique characteristic of our microbial blend is its ability to adapt to the changing distribution of hydrocarbon by-products and produce more enzymes needed to digest a particular type of chemical. The food-grade botanical extracts increase the attack ratio for the microbes and enzymes. This blend is one of only a few that can withstand phenol and phenolic toxins.

This synergy forms a very potent tool to combat accumulation of hydrocarbon waste products in a wide variety of applications in the petroleum industry. The catalytic process eliminates odors from anaerobic decomposition and effectively prevents the volatilization of light chain organic molecules, such as the BETX group (benzene, toluene,

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