# HC-SERIES MICROBIAL HYDROCARBON REMEDIATION FORMULAS

HC-SERIES™ is our professional product line for the bioremediation of deep soil and ground water hydrocarbon contamination. These formulas were developed to help solve contamination situations that demand minimal disruption to surrounding environments while maintaining economic feasibility. The HC-SERIES™ affords you the ability to reach deep into contaminated areas, perform in-situ bioremediation, realize dramatic material and labor savings as well as, accomplish remediation goals in a short period. The HC-SERIES™ is a blend of naturally occurring, live synergistic micro-organisms that are chosen for their exceptional ability to bioremediate hydrocarbons rapidly. The product line is comprised of: HC-100™, HC-200 Kit™ and HC-300 KIT<sup>™</sup>. We can custom blend a product for your specific needs and unique contamination problems, call for details.

## HC-100"

This is our general use product for the bioremediation of soil and ground water hydrocarbon contamination. This formula was developed to solve situations that demand minimal disruption to surrounding environments while maintaining economic feasibility. HC-100 affords you the ability to reach deep into contaminated areas, perform in-situ bioremediation, realize dramatic material and labor efficiencies and accomplish remediation goals in a short period of time.

We recommend the use of Remediact™ with this product.

#### **HC-200 KIT**

This is a professional product for in-situ bioremediation of hydrocarbon contaminated oily water, groundwater plumes and industrial wastewater, ponds and lagoons. This formulation was developed to rapidly degrade the major components of BTEX, higher range aromatic and aliphatic compounds. Application is non-disruptive to surrounding environments and maintains high economic feasibility. HC-200 KIT is a more site specific product than HC-100.

## **HC-300 KIT**

This is our finest professional product for the in-situ and ex-situ bioremediation of hydrocarbon contaminated soil. This formula was developed to specifically degrade light and heavy oil fractions. HC-300 KIT affords you the ability to degrade major gasoline range organics, DROs from #2 through #6 fuel oils, crude, tar, creosote and PAHs. The biological blend of HC-300 KIT is extremely resistant to environmental conditions and performs exceptionally well in areas with adverse conditions.

HC-SERIES is a group of highly effective bioremedial cleaning products that can be used in commercial and industrial hydrocarbon contamination situations. Here is a partial list of contaminant's and chemicals that will effectively be eliminated:

- DIESEL FUEL
- PARAFFIN
- MOTOROIL
- CUTTING OILS
- CRUDE OIL
- ANTI-FREEZE
- XYLENE
- HEATING OTI
- LUBRICATING OIL
- AROMATICS
- GLYCOLS
- TOLUENE
- ORGANIC PESTICIDES
- ORGANIC SOLVENTS
- GASOLINE
- PAINT THINNERS
- ETHYLBENZENE
- TRANSMISSION FLUID
- KEROSENE
- ORGANIC HERBICIDES
- GREASE

- BENZENE
- MINERAL SPIRITS
- JET FUEL
- NAPHTHALENE
- SOLVENTS
- ALCOHOL
- TARS

Our products are environmentally sound and dedicated to the cleaning and remediation of potentially harmful contaminant's. While each product has specific applications and uses, they all share the unique ability to transform hazardous compounds into safe and disposable carbon dioxide (CO<sub>2</sub>) and water. The process of biormediation is listed as one of the US Environmental Protection Agency's (EPA) innovative technologies and can be accomplished in-place (In Situ) thereby eliminating the hazard and costs of "off-site" contamination. Bioremediation is a cost effective way to eliminate harmful contaminates to our environment.

We have the most extensive line of products available to solve your hydrocarbon contamination problems from the past and to prevent those problems in the future.

## **GENERAL DIRECTIONS AND GUIDELINES:**

Application guidelines are more site and situation specific than for other products. There is not necessarily a "cookie cutter" recipe applicable to all situations. Please call for specific application directions and methods recommendations based on situation.

#### PHYSICAL PROPERTIES:

Appearance: Clear Liquid Boiling Point: 212° F Soluble in Water: Complete Odor: Organic pH Concentrate: 6.9 to 7.2 pH Diluted: 6.9 to 7.5

Evaporation Rate: Same as Water

PRODUCT EFFECTIVENESS: The effectiveness of this product and the "speed" at which it works is determined by certain factors the absorption action of this products begins immediately. The bioremedial process will begin immediately but the duration or speed of the process will depend on many factors. In general these factors are as follows:

**TEMPERATURE:** The warmer the temperature, the faster this product will work. (Range 42° F. to 120° F.)

**AGE OF THE STAIN OR SPILL:** The older the stain or spill, the longer it may take to work.

TYPE OF HYDROCARBON: Some hydrocarbons take longer than others.

PACKAGING: 5 gallon "cubitainers," 2 1/2 gallon "F style jugs" (2 per case), 1 gallon (4 per case), 16 oz. bottles (12 per case), 55 gallon drums and bulk packaging is available, please call for details and options.

FOR ADDITIONAL INFORMATION OR TO PLACE AN ORDER, PLEASE CONTACT



# Total Bio Solution,

BIOREMEDIAL CLEANING PRODUCTS FOR A CLEANER, GREENER WORLD

Total Bio Solution, LLC is a distributor of bioremedial cleaning products that eliminate spills, contamination and environmental hazards utilizing eco-friendly solutions manufactured by EnviroLogic, Inc.

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