

BIO-ONE MICROBIAL HYDROCARBON DECONTAMINANT

Effective bioremediation measured in months not years

Dig, haul and dispose or pump and treat are old school methods for cleaning up specific hydrocarbon and hydrocarbon-related contaminants. Both methods are exorbitantly time-consuming and expensive. AC Environmental has a better solution...bioremediation with Bio-One™.

Bio-One™ is a liquid blend of naturally occurring bacteria that digest the contaminants. The blend includes microbes that serve as the primary digesters of the contaminant as well as beneficial secondary microbes that digest the waste of the primary metabolizers. Depending on the contaminant, Bio-One™ can be custom blended for a more precise and effective outcome.

The end result of the microbial activity is remediation of the contaminant in an environmentally friendly manner. The by-products are non-hazardous and include amino acids, water and small amounts of carbon dioxide.

Environmental consultants and engineers have successfully deployed AC Bio-One™ with outstanding results in a variety of projects including underground storage tank remediation, oil field and refinery clean up and industrial chemical decontamination. In all instances, the projects were under the direction of either state or federal environmental regulatory agencies and met the requirements for final site closure.

Since 1998, We has been satisfying the needs of a wide-range of customers with innovative, bioscience solutions for manufacturing, agriculture, environmental remediation, oil field production, restaurants and food processing and aquatic management.



THE AC ENVIRONMENTAL SOLUTION

- Cost-effective solution
- Significantly reduces clean up time frame
- Proven solutions for bioremediation of alkanes, chlorinated hydrocarbons, aromatics, ketones, alcohols, explosive wastes, atrazine and pesticides
- All-natural solution and non-hazardous by-products
- Product and geologic technical support

BIO-ONE MICROBIAL HYDROCARBON DECONTAMINANT

Bio-One™ saves time and money.

Bio-One™ from AC Environmental is an affordable and timesaving method for the remediation of hydrocarbon contamination. Often running into the millions of dollars and taking years to complete, excavation and disposal and pump and treat methods are prohibitively costly and time-consuming...and unnecessary. Bio-One™ lowers clean-up costs and significantly shortens the time to site closure by allowing for ex-situ remediation in which the soil can be land farmed in the immediate vicinity of the site and returned. In-situ remediation is also possible with Bio-One™ but site-specific soil and geologic characteristics must be considered to assure an effective remedy.

Bio-One™ is all-natural.

Bio-One™ is a proprietary blend of multiple cultures of naturally occurring bacteria. During the 7-years of R&D, We identified and currently maintains active cultures of some 200 genus and species of hydrocarbon metabolizing microbes. The bacterial strains in Bio-One™ have been selected, cultured and acclimated according to their particular genetic traits and ability to degrade hydrocarbon chains ranging from C4 to C100. No genetic engineering is utilized in the production process.

Bio-One™ is effective on all hydrocarbon-based contaminants.

Depending upon the specific constituents of the hydrocarbon contamination and site-specific characteristics, Bio-One™ can be custom blended to ensure complete remediation. AC Environmental's Bio-One™ has been successfully utilized on projects to remediate gasoline, crude oil, condensate, diesel fuel, JP4, jet fuel, alcohols, chlorinated solvents, toxiphenes, PAH (Polynuclear Aromatic Hydrocarbons), DDT (Dichloro-Diphenyl-Trichloroethane) and explosive wastes (nitrate compounds). In wastewater, Bio-One has been effective in reducing or, in some cases, eliminating TPH (Total Petroleum Hydrocarbons), BOD (Biochemical Oxygen Demand) FOG (Floating Oil and Grease) and COG (Chemical Oxygen Demand) from the system.

Environmentally Friendly, Non-hazardous

Since the bacteria in Bio-One™ are all-natural and utilize natural processes, it is non-hazardous, non-toxic, non-carcinogenic, does not violate air emission standards and requires no special handling or storage permits. The by-products of the remediation process, (water, amino acids and carbon dioxide), recede into background levels. In rural areas where farmland has been used to treat contaminated soil, the land was back in tillage immediately following site closure.

Comprehensive Service & Support

Bio-One™ is backed by complete service and support including product application training and site-specific analysis and recommendations for in-situ and ex-situ deployments. Regardless of the size of the project, AC Environmental provides the expertise and support for a successful solution.



#109, 117 Pembina Road, Sherwood Park,
Alberta, CANADA, T8H 0J4
Tel: (780) 467-0303, Fax: (780) 401-3519

sales@acmail.ca

190 Church Street, Garson,
Ontario, CANADA, P3L 1V7
Tel: (705) 693-4829, Fax: (705) 693-1642

www.ac-environmental.com

