

Advance Biotechnologies of Canada

“Advanced Microbiology for a Clean, Safe Environment”

ADB 350

Refinery and Chemical Waste

ADB350 and ADB350/10 are specially formulated and packaged for use in remediating hydrocarbons and other organics in soil. To assure optimal performance of these organisms, under the toughest conditions, they are produced and blended together with “high potency” nutrients and stimulants.

ADB350 and ADB350/10 contain organisms that will degrade a wide range of hydrocarbons including: gasoline, diesel, crude oil, benzene, toluene, ethyl benzene, and xylene.

Specifications:

Form: Free-flowing granular powder
Color: Brown, may be dyed blue
Nutrient Content: Biological nutrients & stimulants

Packaging:

250 gram water soluble packages protected by a foil overwrap. 10kg. per plastic pail.

Storage:

DO NOT FREEZE! Store in a cool dry location. Do not inhale dusts, avoid excessive skin contact. SEE M.S.D.S.

Application Instructions:

To clean up small areas contaminated with petroleum oils, use B350/10 at the rate of one kilogram per 20 square meters of contaminated soil. Rake or till the soil. Maintain the area as if growing a lawn and repeat application as necessary.

For larger projects, use 100 kilograms B350 plus 400 kilograms of fertilizer per 1500 cubic meters of soil. For deeper contaminated sites, use 100 kilograms per 3000 cubic meters of soil. Repeated applications may be needed for heavily contaminated soil.

ADB350 and ADB350/10 can be applied to the soil with any appropriate fertilizer or seed spreading equipment. Dry or wet application can be used. For direct injection applications the products should be mixed with clean, warm water for a minimum of two hours before injection. Use in accordance with all Federal and State regulations. Results will depend upon soil types and climate conditions.

Land Treatment

There is not a standard protocol for bioremediation of contaminated soils; however, there are several guidelines which should be followed to obtain the optimum degradation rates of the organic contaminants. Bioremediation of contaminated soils may take place in a lined treatment cell so that the runoff resulting from the degradation of the wastes can be collected.

Typically the soil is treated in lifts of 20cm to 30cm to allow maximum oxygen transfer through the soil for the microorganisms. This transfer is usually accomplished by tilling and it provides for the essential intimate contact needed between the bacterial cultures and the organic contaminates.

Soil pH, nutrient levels, oxygen availability, and moisture content are critical to the success of bioremediation. Of course, all of the requirements will vary depending on the soil, weather conditions (humidity, temperature, rainfall amounts), indigenous microbial population, contaminates involved, the concentration of those contaminates, and the amount of time allowed for cleaning up the site.

Direct Injection

Direct Injection of the bacteria and nutrient solutions can be used for treatment. This method is site specific and an experienced contractor should be consulted.

Benefits of ADB350 and ADB350/10:

- Deep Cleans Soils
- Enhances Natural Processes
- Eliminates Unsightly Areas
- Reduces Pollution Liability
- Lowers Disposal Costs

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