

# HYDRA Bio Accelerator



Soil & Groundwater Remediation  
For Enhanced Aerobic Bioremediation



# HYDRA®

## Features & Advantages

- ◆ Effectively degrades organic contaminants polluting ground water or soil including BTEX, MTBE and more.
- ◆ Stability and low solubility allows enhanced period of aerobic bioremediation.
- ◆ Homogenous slurry could be easily made due to very small particle size.
- ◆ Very slow oxygen release.
- ◆ Also oxidises heavy metals.
- ◆ Smaller sized particles enable better horizontal penetration into the soil with no risk of clogged pores.
- ◆ Successfully treats total petroleum hydrocarbons including light to heavy fuel oils, Non-halogenated volatile solvents (methanol, acetone, ethanol, acetonitrile, ethyl acetate, tert-butyl alcohol (TBA) etc.
- ◆ Reduces organic pollutants including hydrocarbons found in groundwater or soil into innocuous end products.

## Description



**Hydra Bio Accelerator** is used for enhanced aerobic bioremediation.

This is a process in which organic contaminants found in soil and/or groundwater are degraded by indigenous or inoculated microorganisms transforming them to innocuous end products.



Enhanced bioremediation with the use of Bio Accelerator is achieved through the extended release of oxygen into the sub-surface to supplement the rate limiting oxygen requirement by aerobic micro-organisms.



Highly Effective upon following common pollutants: BTEX or benzene, toluene, ethylbenzene and xylenes; MTBE or methyl tertiary butyl ether; TPH or total petroleum hydrocarbons; Phenol and Cresols; High Explosives; Heavy Metals; Polycyclic Aromatic Hydrocarbons or PAHs including methyl naphthalenes and naphthalene.

A few of the halogenated compounds and Non-halogenated volatile solvents.

## The Solution

**Hydra Bio Accelerator** slowly releases oxygen making the product an ideal choice for soil remediation through extended aerobic bioremediation.

The process of bioremediation includes degradation of organic contaminants that are found in ground water and soil through microorganisms present naturally or introduced via an outer source. The process transforms the pollutants into harmless end products.

**Bio Accelerator** releases oxygen for extended periods and supplements the rate limiting oxygen requirement of aerobically active microorganisms.



Other Applications:

- ◆ In Agricultural Use
- ◆ Cattle-breeding
- ◆ Poultry-raising
- ◆ Bakery Industry
- ◆ Aquaculture
- ◆ Production of precious Metal
- ◆ Treating Wastewater

## How To Use

### Solubility

Low water solubility also helps **Hydra Bio Accelerator** in continual oxygen releasing process months after the application.

### Bio Remediation Soil

Once you know the total mass of contaminates, you can calculate the amount of oxygen required. As a rule of thumb 3 kilos of **Hydra Bio Accelerator** are required per 1 kilo of hydrocarbon.

Use **Hydra Bio Accelerator** for Bio Remediation Process.

Use 3Kg of **Hydra Bio Accelerator** for every 1 kilo of hydrocarbon pollutant.



## Laboratory Facilities

Hydra International Ltd.'s Research & Development Laboratories are a hub of activity where new products are developed and formulated. We have working relationships with our raw material suppliers, many of these suppliers are major world-wide chemical manufacturers with their own development laboratories.

As a company we are well known in the chemical industry for being receptive to cutting edge new chemicals which can be incorporated into our products to achieve performance advantages. An important part of the International Standards that we hold is that of constant improvement. We show that we have achieved this at every independent audit.



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