



INTERNATIONAL, INC.

PRODUCT BULLETIN

SP-7010 “EPA Registered” Remediade

BIO-REMEDICATION BLEND FOR HYDROCARBON CONTAMINATION

DESCRIPTION:

SP-7010 is a blend of plant extracts designed to promote rapid bacteria growth for bio-remediation of hydrocarbons. The unique, VariChem process for production of SP-7010 extracts polysaccharides, enzymes, vitamins, hormones, polyuronic acids and humic acids, all of which contribute to the rapid growth and sustaining life of bacteria. Additional benefits of SP-7010 are the blocking of Sodium Ion's from brine spills and the breaking down of clay soils into loam type soils.

APPLICATION METHODS:

A.) Used for 1 to 12” contamination’s in soil

1. Plow or till the soil to incorporate the waste. Determine the depth of contamination and assure adequate tillage to the contaminated depth.
2. Plow or till and incorporate SP-7010 at a rate of 40 to 55 gallons per acre-foot for total treatment. SP-7010 should be diluted with clean water at a rate of one (1) part product to (20) parts water, to insure good dispersion. First application should be 50% of total required treatment. This should be sprayed out in 3 applications with tilling taking place after each application.
3. Repeat step 2 applying 25% of total required treatment. (Total treatment will be 50 to 60 gallons per acre-foot for 25,000 ppm of TPH.)
4. In some cases supplemental products are added to mixture. This need is usually monitored by Ph. Ph levels need to be maintained at levels between 6 to 8, with 7 being the ideal Ph level.
5. Supplemental bacteria, if needed, can be added to the SP-7010 plus water mixture at a rate of 1/4 cup bacteria per five (500) gallons SP-7010 mixture and applied through the spray rig. After application of product mixture, clean sprayer thoroughly to prevent plugging in the spray nozzle, or expansion within the sprayer due to bacteria regeneration. Bacteria are not required in most cases. Cases where extreme PH swings are generated are cause for additives. SP-6000 is used in small quantities to adjust low ph’s to 7 and add oxygen a s well.
Supplemental bacteria are only needed if the contamination has a beginning ph below 5.



6. Apply water to the treated area and maintain soil moisture for 30 days. This should be done every 5 to 7 days with tilling the soil as well. The application of Remediade may be adequate to maintain the required moisture level. In cases where contaminated areas get heavy rain, additional tilling may be required to keep the soil below a 30% moisture content. If soils have a high moisture content previous to the application of Remediade, dilutions rates may be lowered to 1 part Remediade to 10 parts water.

B.) Used for Surface Applications of water.

1. Over-spray with a 20 to 1 dilution of Non-Chlorinated water (do not use city water – use only fresh water for inland use) Each application needs approximately 1/6 of total projected application.
2. Additional Applications – spray with water & “Remediade ” to keep surface agitated. This will vary due to sunlight & temperature. Do not wait more than 3 to 5 days to spray. For quicker results, spraying everyday may be required. This approach can be used on hard surface as well. In treating oil spills on water , spray every 2 to 3 days.
3. After 4th application, low levels of “Remediade ” may be used and 8 treatments may be needed to complete if the TPH level requirement is below 100 ppm.
4. For TPH levels under 10,000 ppm, 3 treatments usually suffices
5. Application rate is 1 to 2 drums per acre of surface area

1 to 2 gallons for 792 sq. ft. of surface area

5 gallons for 3900 sq. acre-foot of surface area

Degradation rates of toxic material change with variables including temperature, pH, organic loading, and soil structure. By employing bio-remediation, pollutants are degraded into products that are part of naturally occurring cycles, CO, H₂O and the nutrients naturally occurring in the oil.

Manufactured by Varichem International Inc. at
7833 HWY 35 North
Bay City, Texas 77414