

Solmar Formulation HC-507



The Solmar Formulation HC-507 has proven to be effective in the treatment of diesel as well as heavier petroleum derivatives. It is particularly useful in dealing with polyaromatic hydrocarbons and tars. It had found use in reducing phenol content in waste streams.

Proven Results: This formulation has found regular use to

- . Improve BOD₅ removals
- . Lower total petroleum hydrocarbon levels
- . Increase settleability
- . Lower sludge volumes
- . Eliminate free-floating hydrocarbons
- . Abate malodors
- . Decrease oil and grease levels
- . Control hydrogen sulfide emissions
- . Provide quicker recovery from upsets due to shock loadings or mechanical failures
- . Give across the board degradation of polyaromatic hydrocarbons
- . Lower viscosity of heavy oil
- . Break emulsions
- . Provide more predictable results in wastewater and soil applications

The Bioaugmentation Concepts: In many waste treatment systems the microorganisms present by happenstance can handle the decomposition of most organic waste products. However, troublesome substrates often remain, or odors may emanate which call for the use of a bacterial supplement.

Through the addition of specifically selected bacterial strains, which have been scientifically formulated for use in industrial wastewater systems, a population shift to these more favorable organisms can be obtained. The bacteria of the additive have specific characteristics that allow them to digest the troublesome substrates, so that they control and eliminate the problems associated with such substrates. These include oil and sludge buildups, insufficient BOD₅ removals, interference with settling, malodors, etc.

Through a carefully planned program of periodic maintenance dosages, the bacterial formulation will continue to dominate the system giving continuing benefits and degradation performance.

The Solmar Formulation HC-507 is supplied in convenient powder form. To assure consistent quality each of the various strains and species are grown individually and preserved. They are then compounded with appropriate synergists, which allow the component organisms to readily adapt themselves to the treatment system. The organisms have been expertly matched to complement one another within existing systems in the areas of intended use.

The microbes chosen for the Solmar Formulation HC-507 are particularly effective in handling aromatic chemical structures, polyaromatic hydrocarbons heavier petroleum derivatives, creosote and coal tars. The HC-507 formulation is more effective in dealing with lighter weight petroleum products as well as animal and vegetable oils.

Being facultative anaerobes the bacteria used can function either in presence or absence of air. In anaerobic systems they cannot generate hydrogen sulfide. This makes them ideal to use in the control of odors, for corrosion inhibition and for improved safety.

Using Formulation HC-507 For maximum results in wastewater systems the bacterial cultures should be added as far upstream as practical. Introduction within the collection system to a waste treatment plant has proven effective in pretreating wastes. In any case treatment before the primary clarifier is desirable, so that improved BOD₅ removals occur across the primary system.

In a lagoon system the bacterial cultures can be added across the lagoon surface. Application may be at a lift station ahead of the lagoon.

Formulation HC-507 cultures are fully activates after soaking for four hours. In flowing systems with washouts the cultures should be presoaked for four to thirty-six hours in lukewarm (80-100⁰F) water. Use two gallons of either tap water or wastewater for each pound of formulation HC-507. If the waste stream is cool the slurry should be cooled to the system's temperature during presoaking. In lagoon or other systems with long detention times presoaking is not necessary, but the cultures should be added as a slurry.

SOLMAR FORMULATION HC-507 PROPERTIES

pH Levels	Most applications are between 5.5 and 8.5. Most effective level is 7.
Temperature	Regular usage is between 55 ⁰ to 110 ⁰ F.
Form	Free flowing powder and granules
Color	Individuals particles vary from white to tan
Bulk Density	6.7 lbs./gal/ or 0.8g/cc
Packaging	Cultures are packaged in convenient 25-pound pails, which are easily stored. Each pail contains a resealable plastic liner to minimize moisture pick-up.
Safety	This formulation is based upon harmless saprophytic organisms (the type normally present in soil) which utilize non-living organic matter as a food source, since some persons are hypersensitive the related chemical compounds present, it is suggested that direct contact with skin be avoided with the dry powder itself. Simply wash hands should there be direct contact. Take normal precautions for the handling of any product, which is lightly dusty.
Storage	The cultures should be stored in a cool dry place. Moisture will activate the product. Pasteurization will occur above 120 ⁰ F.

Treatment Schedule The quantities required for waste treatment plants depend upon the type of treatment system, the size of the system and the nature and characteristics of the wastewater. Due to the many variables that exist, individual treatment programs need to be tailored for each particular application. Solmar Corp. technical personnel are available for consultation and development of appropriate treatment programs. A completed questionnaire (form 005) should be returned to your Solmar Corp. representative. The quantities required for static lagoons and dry land spills are shown in bulletin 001 entitled "The Use of Solmar Formulations for Treating Oily Waste."



SOLMAR CORP.

P.O. Box 2329
Carlsbad, CA 92018
(760) 734-1685
Fax: (760) 734-1685

092-060