

MARESOL

BRIEF DESCRIPTION:

Bioremediation process uses microorganisms or their enzymes to remove/neutralize contaminants within the environment (i.e., within soil and water) to their original condition. The hydrocarbonoclastic bacteria become functionally active in oil contaminated environment. The present indigenous technology of bioremediation is a process of using consortium of hydrocarbonoclastic bacteria isolated from deep sea to play a key role in the removal of toxic and harmful petroleum hydrocarbons.

Applications:

The bioremediation package has been demonstrated effective mitigating of: Engine oils, Spent engine oil, Crude oil; Diesel, Petrol, Toluene, Xylene, Kerosene, Naphthalene and Phenanthrene etc. This technology has wide application in coastal, marine surface oil spill, deep sea oil plumes and sludge treatments in refineries.

Microbial Consortia:

The present marine microbial consortia were isolated from marine environment of Indian EEZ. The isolated bacterial consortiums effectively produce biosurfactant that enhances the bioavailability of contaminants for degradation process.

Efficiency:

Biodegradation of crude oil by this technology is proven in laboratory. Approximately 95% of the total hydrocarbon was degraded into non-toxic end products within a period of 21-28 days.

Scale of development: Ready for licensing of Technology

