

The Effectiveness of a Bio-Catalytic Agent Employed in the Bioremediation of Seawater Damaged by Crude Oil

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Abstract

Due to regular activities involving the excavation, cleaning and transportation of petroleum, oil spillage contamination has become one of the most prevalent and difficult issues in marine environments over time. The use of naturally generated surfactants has emerged as a desirable method for repairing oil spill damage to the environment. Many studies have shown that adding nutrients is an effective way to speed up the biodegradation of oil because microorganisms may use petroleum hydrocarbons as a source of carbon and energy, which favours and accelerates the rate of breakdown of the hydrocarbons. Using a qualitative investigation of its features, this study sought to determine the efficiency of a commercial bio-catalytic agent used in the biological rehabilitation of locations contaminated by crude oil. This bio-catalyst performed quite well in the tests that were conducted on it. For instance, the Crucial Micellar emulsification assays for Concentration (CMC) showed typical values of. With the use of a bio-catalytic agent solution and an aeration system, a considerable decrease in ~~CMC~~ ~~CMC~~

circumstances and outcomes of bioremediation. A type of natural surfactant called a bio surfactant is one that is obtained from plants, animals or microbes. They are chosen to clean up locations that have been contaminated by petroleum hydrocarbons due to their biodegradability and low toxicity. They are perfect for treating oil