

MarineNews

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Biodispersion Is Viable Option for Floating Oil Treatment

It is estimated that as much as 30,000 tons of oil enter the seas every year, with about 62 percent coming from the industrial sector and 22 percent from ships. The marine industry, in particular, has worked fastidiously over the past 10 years — driven in large part by OPA 90 and other regional, national and international legislative measures — to ensure that oil never enters water. In order to clean up these aqueous environments, there is a need for a technology that is non-invasive, less labor intensive and cost effective. Any solution should:

- Be fast acting — remediation should take place in days or hours and not in months.
- Does not disturb the existing ecosystem.
- Be available in a ready-to-use form
- Does not require supplementary addition of nutrients
- Require little or no human intervention
- Contains no genetically modified bacteria
- Be environmentally safe



Spill after being sprayed with SpillRemed

Biodispersion is a biological process that promotes dispersion of oil and forms an important phase of remediation. In order to achieve an effective biodispersion Sarva Bio Remed developed a medium that is oleophilic and supports growth of oil-eating bacteria. The oleophilic nature of the medium ensures that the bacteria are not lost in the vast mass of water. In fact, bacteria remain actively attached to oil globules and continue breakdown of oil even after dispersion.



Water free from oil spill

Sarva Bio Remed developed a series of products for different bioremediation applications, a product line which includes: SpillRemed (Marine); SpillRemed; VegRemed; BipaulRemed; and BilgeRemed

This article describes test results of SpillRemed (Marine) and SpillRemed. Biodispersion technology has a very wide area of application in industrial and shipping segments wherever oil is in direct contact with water.

Marine Applications

BilgeRemed, a product based on biodispersion technology, is most effective when oil is in aqueous environment as in the case bilge tanks of ships. Waste oil, lubricants and greases used in machinery compartments of ships is washed with water and is directed to the bilge tank. Most ships are equipped with Oil Water Separators (OWS) to separate oil from the emulsion in the bilge water and allows water containing less than 15 ppm of oil to be discharged over-board. The bilge tanks are equipped with monitors that sound an alarm if the concentration of oil exceeds 15 ppm and the discharge over-board is stopped.

BilgeRemed can be used directly in bilge tanks to remediate the complex mixture of oil so that the load on OWS is reduced. BilgeRemed disperses the oil in the first stage hence more dispersed oil is now available for the OWS. However, unlike in the case of chemical dispersants, the dispersed oil is simultaneously utilized by the popula-

tion of oil degrading bacteria. Thus not only oil is dispersed by BilgeRemed but some of the dispersed oil is also consumed. This will reduce the time taken for a ship at the port receiving facilities since the total amount of oil for discharge is also reduced.

BilgeRemed has been tested for its compatibility with OSW by a well-known manufacturer, which subsequently reported that BilgeRemed is compatible with their flocculent compound and that it works as well as the chemical dispersants tested by them. As many high-profile, costly legal battles have surely proven, most if not all shipping companies would like to have a product which is not harmful to the environment so that they comply with the regulations and help prevent marine pollution.



Spill Remed in bottles

Treatment of oil slop in tankers is another area of application for SpillRemed (Marine), as it is an aid making it possible to reduce the levels of pollution and simultaneously meet the international regulations. The SpillRemed (Marine) treatment is expected to reduce the cost of transportation of waste oil by ship by treating oil during their return voyage. Tanker owners can thus save time and money.

The preceding was excerpted, in part, from an article by Satya Ganti, Sarva Bio Remed. Sarva Bio Remed is a biotechnology company located in Pennsylvania and New Jersey that offers efficient and clean solutions to floating oil pollution.