

TECHNOLOGY Biodegradable Oil Spill Dispersant

OVERVIEW

Background:

Dispersants are used to break up an oil slick floating on the surface of water into small droplets that can be carried away by waves. Traditional dispersant formulations contain a blend of surfactants in a base of organic solvent. There are concerns regarding the aquatic toxicity and environmental impacts of current oil-spill dispersants, which are typically not food-grade materials.

Invention:

Researchers at the University of Maryland have invented a safer dispersant for potential use in oil-spill remediation. A combination of two food-grade amphiphiles is effective at emulsifying crude oil with seawater. The new formulation produces smaller droplets that remain stable to coalescence for a much longer time compared to representative traditional dispersants such as Corexit 9500A. As the smaller size and stability of crude oil droplets is believed to be important for their dispersion and eventual microbial degradation in the ocean the new blend could potentially be a viable alternative for the dispersion of oil spills.

APPLICATIONS

Oil spill dispersion **ADVANTAGES**

Better emulsification Environmentally safe

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Additional Information

INSTITUTION

University of Maryland, College Park

PATENT STATUS

Pending

LICENSE STATUS

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EXTERNAL RESOURCES

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