



Oil Spill Dispersant (COREXIT[®] EC9500A and EC9527A) Information for Health Professionals

Overview

Dispersants are specially designed oil spill products that are composed of detergent-like surfactants in low toxicity solvents. Dispersants do not remove oil from the water, but instead break the oil slick into small droplets. These droplets disperse into the water and are further broken down by nature. Dispersants also prevent the oil droplets from coming back together and forming another surface slick. Dispersed oil droplets are less likely to stick to birds and other animals, shoreline rocks, and vegetation. Purpose

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Dispersants can be applied to oil slicks either by aircraft or by ships with spraying equipment. They are also used by injection below water to break up oil before it reaches the surface. The use of dispersants is restricted under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Federal and state agencies have agreements establishing areas where rapid decisions on dispersants may be made by the federal on-scene coordinators. Areas outside those designated require additional approval of other agencies identified in the NCP.

Type of Dispersants used on Mississippi Canyon Oil Spill

COREXIT[®] 9500 and 9527 are the two types of dispersants currently being used on the Mississippi Canyon Oil Spill.

- Ingredients are not considered to cause chemical sensitization; the dispersants contain proven, biodegradable and low toxicity surfactants.
- The dispersants use an oleophilic solvent delivery system which has shown to be effective in penetrating surfactants.
- Keep the dispersants away from any heat and ignition sources, because the mixture is slightly flammable mixture and combustible.
- Because the specific gravity and density are lower than water, the material should remain at the surface.
- The pH is close to neutral (6.2) with a relatively low vapor pressure at 15.5 mmHg @ 100°F/37.8°C.



Personal Protection Equipment Requirements and COREXIT[®] 9500 and 9527

For hand protection, use nitrile or PVC gloves. Wear standard protective clothing (coveralls and boots) and chemical splash goggles. General ventilation is recommended.

Potential Health Threats from COREXIT[®] 9500 and 9527 Exposure

Once the dispersant is applied to the oil slick it begins to break down in the environment. In aquatic environments it begins to break down within 16 days. Because of the strict guidelines that must be followed to utilize dispersants it is unlikely that the general public will be exposed to straight product.

The most likely exposure will occur to staff handling and transporting the material, and health effects may include:

- Defatting and drying of the skin and possibly dermatitis, as a result of prolonged exposure.
- Chemical pneumonitis, if aspirated into the lungs. However, ingestion is considered an unlikely route exposure.
- Repeated or excessive exposure to 2-butoxyethanol may cause central nervous system depression, nausea, vomiting, anesthetic or narcotic effects, injury to red blood cells (hemolysis), kidney or the liver, and a metallic taste.
- Respiratory irritation as a result of repeated and prolonged inhalation exposure.
- Eye irritation as a result of repeated and prolonged inhalation exposure.

Treating Exposure to COREXIT[®] 9500 and 9527

Skin Contamination. Frequent or prolonged contact with product may cause defatting and drying of the skin, leading to discomfort and dermatitis. Skin contact may aggravate an existing dermatological condition. Immediately wash with soap and water.

Ocular Exposure. Prolonged ocular exposure can result in irritation. No permanent damage is likely to occur. The immediate treatment is to flush the eye with water for 15 minutes.

Ingestion Exposure. Ingestion can cause chemical pneumonitis if the ingested dispersants are aspirated into the lungs (due to vomiting). This is due to the petroleum distillates and aromatic solvents. To treat individuals exposed via ingestion, do not induce vomiting as this may lead to aspiration of the mixture into the lung. If conscious, wash out mouth and give water to drink.



Inhalation Exposure. Repeated or prolonged exposure may irritate the respiratory tract. Remove patient to fresh air and provide oxygen support if needed.

Resources

COREXIT® EC9500A Technical Product Bulletin #D-4 USEPA, Oil Program Center:

<http://www.epa.gov/swercepp/web/content/ncp/products/corex950.htm>

COREXIT® EC9527A Technical Product Bulletin #D-1 USEPA, Oil Program Center:

<http://www.epa.gov/swercepp/web/content/ncp/products/corex952.htm>

COREXIT® EC9527A Material Safety Data Sheet (MSDS):

http://www.deepwaterhorizonresponse.com/posted/2931/Master_EC9527A_MSDS.539295.pdf

COREXIT® EC9500A Material Safety Data Sheet (MSDS):

http://www.deepwaterhorizonresponse.com/posted/2931/COREXIT_9500_UsCuEg.539287.pdf

The Mississippi Emergency Management Agency Oil Spill Call Center: 866-920-6362 Poison centers in the gulf region: www.aapcc.org/DNN/ and (800) 222-1222