

US EPA ARCHIVE DOCUMENT

The National Oil and Hazardous Substances Pollution Contingency Plan



Subpart J Product Schedule

William Nichols

*EPA Office of Emergency
Management*

*Regulatory and Policy
Development Division*

BIOREMEDIATION AGENTS

- Microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation
- Bio agents are typically used as a polishing step after mechanical cleanup options have been applied
 - NOT an OPEN WATER TOOL



DISPERSANTS

- Chemical agents that emulsify, disperse, or solubilize oil or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column
- These products should not be confused with surface washing agents
- Several on the Schedule
 - Some reps here today

Conditions that Affect the Use of Dispersants on Oil Spills

- **Favorable Conditions:**

- Higher water temperatures and salinity
- High waves prevent booms and skimmers from working effectively
- Offshore dispersal - for industrial and municipal water intake protection
- Prevent oiled seabirds and marine mammals
- Sea dispersal can protect inshore breeding grounds
- Prevent “mousse” or emulsion formations
- To protect mangroves, coral reefs, salt marshes, sea grasses, and other sensitive areas
- To prevent spill from reaching marinas, harbor facilities, aquaculture operations, shellfish harvesting operations, tourist beaches, and other

Unfavorable Conditions:

- Very large oil spills (if used as the only response tool)
- Cold water temperatures
- Calm seas
- Strong winds
- Lack of adequate equipment or trained personnel
- Small window of opportunity
- Weathered oil, high pour point, high viscosity
- Freshwater
- Near shore shallow waters and intertidal zones
- Lighter gasoline's and fuel oils due to high evaporation rates
- Confined harbors or bays
- Toxicity to native species. May effect the taste



SURFACE WASHING AGENTS

- Any product that removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not disperse or solubilizing the oil into the water column
- Product should readily float on the water surface and is recoverable.
- Wash water from these products should not be flushed into water bodies
- FIRE FIGHTERS USE CAUTION
 - should be contained, recovered, and properly treated



SURFACE COLLECTING AGENTS



- There are no products under this category
- EPA may eliminate this category and incorporate future products under miscellaneous oil spill control agents
- ERT had issues with herding agents causing “bathtub” rings of oil
- Should be used in open water

MISCELLANEOUS OIL SPILL CONTROL AGENTS

- Any product, other than a dispersant, sinking agent, SWA, surface collecting agent, bio agent, burning agent, or sorbent that can be used to enhance oil spill cleanup, removal, treatment, or migration
- Products include: emulsifiers, elastizers, chemical based sorbents, solidifiers, and mixed
- Solidifiers



Sorbents

- Essentially inert and insoluble materials that are used to remove oil from water or solid surfaces through adsorption, in which the oil is attracted to the sorbent surface and then adheres to it; absorption, in which the oil penetrates the pores of the sorbent material
- Sorbents are generally not required to be listed under the Schedule
- Sorbents that contain chemical or biological components, especially when made in loose form, may be required to be listed

AUTHORITY TO USE PRODUCTS

- Regional Response Teams (RRTs) and Federal On-Scene Coordinators (U.S. EPA and U.S. Coast Guard) make the decisions regarding Alternative Countermeasure use
- There is no federal mandate to use products on the schedule, however, RRTs shall address, as part of their planning activities, the desirability of using appropriate products

HOW DO YOU GET ON THE LIST?



- **General:** Material Safety Data Sheets, Screen for Heavy Metals, Screen for Chlorinated Hydrocarbons, Toxicity tests (except for bioremediation agents)
- **Bioremediation Agents:** Screen for Pathogens, 28-day Effectiveness Test
- **Dispersants:** Swirling Flask Test, Dispersant Effectiveness Test

*DAWN DISHWASHING LIQUID
ONLY!*





FOR MORE INFORMATION

- Sub J Web Site at www.epa.gov/emergencies
- William Nichols at 202-564-1970
- (202) 564-3060 RPDD

