



Eco-Safe Oil & Fuel Clean Up - Product Data Sheet

ECO-SAFE

Eco-Safe Oil & Fuel Clean-up is an effective, non-toxic liquid treatment to clean up oil and fuel spills in water and soil. The product facilitates a complete and natural remediation of oil and fuel spills in fresh or salt water and soil. This environmentally friendly treatment is an effective alternative to the use of petrochemical dispersants - and their undesirable residual effects on marine life and the environment.

EcoSafe Oil & Fuel Clean-Up is a proprietary formulation of all natural, non-toxic ingredients that are 100% biodegradable, environmentally friendly and safe for people, wildlife and marine life.

How EcoSafe Works

EcoSafe Oil & Fuel Clean-Up's mode of action is to break down the hydrocarbon bonds in heavy oil and fuel molecules which disperses oil into micro-particles. These small particles are able to be ingested by the naturally occurring phytoplankton and zooplankton. The result is the oil is safely and completely bio-remediated into the environment.

Eco-Safe Oil & Fuel Clean-Up's unique colloidal micelle chemical formulation is very effective at emulsifying, suspending and dispersing a wide variety of oil based products including heavy crude oil, Bunker C, gasoline, diesel, jet fuel and distillate fuels and more.

Product Features

- Emulsifies oil products - raw or refined
- Breaks down hydrocarbon chemical bonds
- Not a soap or detergent (chemical)
- Concentrated formula - diluted with water
- Non-fuming, non-flammable
- Formulated with all natural ingredients
- Non-toxic to people, pets or marine life
- 100% Biodegradable
- Requires no special handling / storage
- Certified environmentally friendly

Certifications & Approvals

- Water Sense Certified
- UL Green Guard Certified
- CSA Sustainability Certified
- Green Seal Certified
- Licensed by State of California (multiple agencies)
- Approved & Used by United States Navy
- Approved & Used by United States Postal Service
- Approved by U.S. Department of Agriculture
- Accepted by Singapore
- Accepted by Australia
- Accepted by India
- Accepted by Malaysia
- Accepted by Pakistan
- Accepted by Thailand
- Accepted by Vietnam
- Accepted by China
- Licensed by Nigeria
- Approved by Jamaica

Applying EcoSafe Oil & Fuel Clean-Up

- EcoSafe Oil & Fuel Clean-Up can be applied to salt water, brackish or fresh water
- EcoSafe Oil & Fuel Clean-Up can be applied in concentrated or diluted form (diluted in water)
- **TREATMENT CONCENTRATION** - Effective treatment concentration(s) depend on the hydrocarbon density of the spilled product
 - Denser petroleum products like crude or Bunker "C" will require more EcoSafe Oil & Fuel Clean-Up to break down the dense oil solution and effectively disperse the oil.
 - Lighter products like gasoline spills can be treated with less EcoSafe - to maximize the dispersion of the active ingredient for wider coverage in the spill area
- **MIXING** - The product can be pre-mixed in advance OR on-site while it is being applied
 - Pre-mixing solutions are more potent if using distilled or de-ionized water
 - On site mixing can be done using water on-site - whether pre-mixed or fed into pump line
- **SPRAY APPLICATION** - The product can be applied using sprayer equipment of various descriptions - up to water cannons to cover larger spill areas
- **AGITATION** - EcoSafe Oil & Fuel Clean-Up is more effective if the product is agitated in the water after it is applied to the spill area. An effective method is to use the cavitation effect of a boat propeller and have a boat systematically pass over the treated area using a grid pattern.
- Another method of agitating the product into the treated water is to pump treated water and re-spray it back into the treated spill area
- **TREATMENT PERIOD** - Results should start to become apparent within 3 to 6 hours. If petroleum film residue still remains in some parts of spill area, additional treatment may be required for the remediation process to be completed.

Physical Properties

Physical State:	Liquid at 70 F	pH 10.4 NEAT (in concentrate)
Color:	Characteristic	Foaming: Extremely low foaming
Odor:	Characteristic	Viscosity: @20c > 225 - 375 (290 avg) cps
Freezing Point:	32 F	Pounds per gallon: 8.52
Flashpoint:	None at 212 F	Specific Gravity: 1.029

Handling & Storage

Protect from temperatures below 32 F and above 90 F
No special handling procedures are necessary

