Pleasure to be part of preserving ecosystem





ECO REDOil Spill Clean Ups

Bio-degradable Oil dispersant & Degreaser



What is Eco Red - Oil Dispersant / Colloid Cleaner?

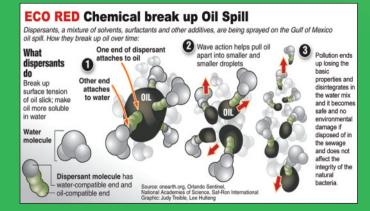
Eco Red is a organic oil dispersant of a premium concentrate colloidal substance, a water-dilatable, a non-petroleum oil emulsifier and dispersant containing the highest grade of biodegradable surfactants and wetting agents.

What is it useful for?

Eco Red is useful for cleaning and processing of all types of oil spills and their derivatives, in all places and circumstances without affecting the physical and biological environment.

How Eco Red works?

They contain molecules with a water-compatible ("hydrophilic") end and an oil-compatible ("lipophilic") end. These molecules attach to the oil, reducing the interfacial tension between oil and water, breaking up the oil slick



Why choosing Eco Red?

Many traditional cleaners / degreasers contain toxic chemicals that are hazardous to our health and to the environment and causes threaten to the human and biological life. This product works through the mechanics of conversion. It remediates by changing the chemical properties of hydrocarbons, rendering them harmless and non-bioavailable.

It is most often sprayed to the affected area of soil, water or hard surface. When applied to impacted soil, a minimal reaction time renders the contaminant irreversibly altered and non-hazardous.

Remediation, Not Transfer: Unlike other products and methods available in the market, ECO RED does not coverup or transfer hydrocarbons, it remediates them.

- ☑ ECO RED is an Organic Dispersant
- ☑ ECO RED is completely safe
- ECO RED is completely biodegradable
- ☑ ECO RED is completely environmentally friendly
- ECO RED is cost effective and will save your money

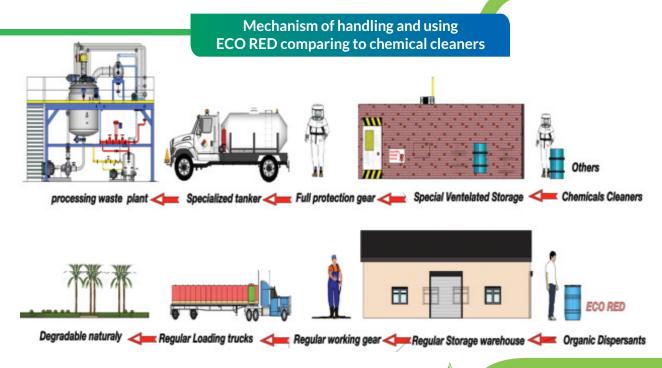
Features & Properties

- ∠ Usage with different concentrations
- ∠ Contains no harmful gases volatile
- ${\it z}$ Contains no petroleum compounds
- ∠ Doesn't affect the natural bacteria
- ✓ Safe, no need protective kits
- ∠ Remove unpleasant odors
- ∠ Non-toxic non dangerous
- ∠ Don't scratch surfaces∠ Fast cleaning result
- ∡ Has no flash point
- ∠ Leaves no residue
- Easy for storage



Eco Red Oil dispersant & Degreaser Advantages and Comparision with other Chemical Dispersants

Eco Red - Organic • Chemical Dispersants Degradable A Non - Degradable Fast acting • • • • Slow acting Doesn't require protective kits • • • • • Needs protective kits Environmental Friendly 6 6 6 6 6 6 Non-Environmental Friendly Non-abrasive A A A No chemical added A A A ▲ ▲ ▲ ▲ A Chemicals added ♦ ♦ ♦ ♦ ♦ ♦ Needs special storage Non-Flammable | | | **♦ ♦ ♦ ♦ ♦ Mostly Flammable ♦ ♦ ♦ ♦ Contains Hydrocarbons** Organic Compounds | | | ♦ ♦ ♦ ♦ Chemical Compunds Nil Validity period for storage Validity period exist







Removes unpleasant odours



△ △ △ Doesn't remove unpleasant odours







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Organic Oil Dispersant for Dry-Dock Ship Repair / Cleaning industry

Oil tankers and ship repairing dry docks are considered one of the most critical facilities in the world which require very high safety standards, safe equipment and cleaning solutions for effective and rapid cleanup in large scale.

Crude oil tankers will experience build-up of sediments and sludge in the bottom of the tanks, web frames ,brackets and crude oil washing performed during the period of service. To clean these tanks for dry-dock or hot work, a complex operation including de-mucking, use of chemicals, timesaving procedures, experienced manpower and necessary equipment are required for these operations.

Traditional toxic chemicals are used widely for such operations which effects both workers and the environment.

Tanker basin, degassing, pumps, pipes lines, ship boards, docks, sidewalks, in general are places where you must maintain a clean and healthy environment to maintain worker safety and environmental standards

Why choosing Eco Red Organic Oil Dispersant Cleaner/ Degreaser for Dry Dock Industry

ECO RED Oil Spill Dispersant to be used as alternative to the toxic chemicals. The characteristics are as follows:

- ∠ Protects equipment's metal surfaces and pipes from corrosion and damages in all stages of exploration and production
- Reduces cost of equipment required for occupational safety, such as protective suits and oxygen masks and others
- ∠ Complies with the standards of security and safety instructions required by the ILO occupational safety
- ✓ Secures and protects workforce from the risk of exposure to toxins and consequent health damage
- ∠ Reduces costs due to non-damages or legal accountability

 ∠
- ≤ Susceptibility of rapid removal of crude oil spill and sediments
- ∠ Concentrate or dilute with water, degrade naturally without leaving residue
- ∠ Compatible with the other liquefy ingredients
- Reduces cleaning downtime period and quick to remove grease and oils.
- $\operatorname{\mathscr{E}}$ Ease and secure for handling and storing.
- ∠ Increased protection against deposits.



The goal at each Off shore Oil spill site is to remove the spilled Oil from the water in the most efficient and safe manner in order that it save the ecosystem and environment.

An oil spill is the release of a liquid petroleum hydrocarbon into the environment, especially the marine ecosystem, due to human activity, and is a form of pollution. Oil spills can have disastrous consequences for society; economically, environmentally and socially.

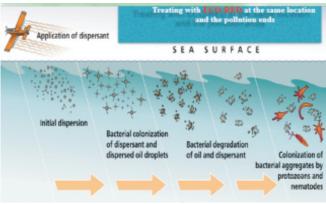
To eliminate the human impact and environmental effects caused by these oil spills we introduce an organic oil dispersant, when sprayed on the affected water surface a minimal reaction time renders the contaminant irreversibly altered and non-hazardous.

Remediation, Not Transfer: Unlike other products and methods available in the market, ECO RED does not cover up or transfer hydrocarbons, it remediates them.

How it works on offshore oil spills?

ECO RED is made up of active ingredients, called solvents and surfactants, the solvent molecule of which is composed of an organic carbon chains, basically has an af? nity for oils and greases (oleophilic) while the surfactant has an af? nity for water (hydrophilic).

These two components working together when sprayed onto oil that is amenable to dispersant. Here it reduces the surface tension between the oil and the water literally pulling the oil apart therefore aiding the oil to be dispersed into minute droplets (similar to the size of dust) in the water column they remain in suspension below the surface, so small they do not have the ability to resurface and re coalesce into a slick. This accelerates the natural process of bacterial degradation, and dispersion, thus assisting the biodegradation of the oil in the environment.



In case of crisis and emergencies

Organic Cleaner **ECO RED** is used by crisis and disaster management for long-term security plan, and for strategic storage as a precaution, it will not lose its properties and its effectiveness over time, and can be used directly in the event of any oil spill onshore or offshore.





Bio-degradeble Oil dispersant & Degreaser







Onshore Oil Spill Cleaning







Soil Remediation

The goal at each petroleum spill site is to remove the spilled petroleum product from the soil in the most efficient and safe manner in order that the soil may be returned to a reusable product.

reusable product.

Oil Spills and Remediation of Soil

Hydrocarbons Spills into the soil environment can occur from pipeline blow-outs, road accidents, leaking of underground storage tanks.. Also, the technologically contaminated lands are becoming larger every year and the problem of developing new and improving the existing technologies for the rehabilitation of oil-contaminated soils still remains urgent, hydrocarbons can be subject to biodegradation, volatilization and leaching.

The goal at each petroleum spill site is to remove the spilled petroleum product from the soil in the most efficient and safe manner in order that the soil may be returned to a reusable product. When complete removal is not possible, practical, or cost effective, the objective is to remediate the contaminated media to concentration levels which will protect groundwater, human health and the environment.

Eco Red - Unique characteristics on soil remediation

Highly Effective

Hydrocarbon remediation is effective on both land and water, and is not subject to strict constraints like temperature, pH, moisture and light. It's easy to spray apply and saves your valuable time, in addition to saving the environment.

Reduces Risk

Using this product, can reduce health/environmental risks and legal liability.

Economical

The application of the hydrocarbon remediation product is a simple and cost effective solution to crude oil, gasoline, and fuel spills that can keep your business in compliance with environmental regulations and reduce disposal costs.

Eco-Friendly

Promotion of natural technology for the remediation of contaminated soil. This is an effective industrial solution to remediate hydrocarbon contamination in water, soil, sand and other environments without exposing people, animals or sensitive ecosystems to toxins, harsh chemicals, allergens or volatile organic compounds (VOCs). The technology works much faster (even in adverse conditions) when compared to microbial treatments.

Environmental Impact

Many of the existing solutions of the problem of cleaning contaminated soil rely on chemicals. For highly contaminated soil, larger amounts of chemicals are required, which means that side-effects on the surrounding environment may increase. These chemicals can be non-biodegradable which are persistent and can pass through the food chains and cause biological magnification. Other solutions use genetically-modified bacteria which have their own potential problems, including a lack of public trust.

• Faster than Microbes:

It remediates hydrocarbons in a fraction of time needed by microbes. For instance, tests show a full reduction in light crude and in field remediation, it reduced high weight hydrocarbons faster compared with the typical long interval required when using microbial treatments.



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Treatment of all types of modern & perennial Oil Spills







Cleaning Oil Tanks & Pipes







Factories and Industrial Workshops







Fuel Stations, Washing Stations, Tanks







Strategic Stock pile for emergency







Industrial Cleaning and general Civic

It's Non-toxic. It's Organic.







Excavation work in oil and gas wells







Airports, Ports, Train Workshops







Roads and Bridge Networks







General cleaning of buildings







Electric Power Station & Transformers







Cleaning Military Equipments & Tanks