

~~X~~Oiler

Emergency response



~~X~~Oiler is a cost-effective, innovative, safe for use reagent for cleanup of soil and water by adsorption, absorption, and encapsulation process, ensuring stabilizing and neutralizing of *petroleum compounds* (including TPH, BTEX, PAH's and VOC's), *toxic metals* (including Hg, Zn, Pb, Cd, Cr, Ni, Se, As, B, Ba), *herbicides and pesticides*.

~~X~~Oiler is an *environmental friendly* powder-like reagent for both emergency and routine cleanup needs. Specifically designed to achieve instant control and elimination of environmental pollution caused by **massive petroleum spills and contamination of soil, seawater, potable water and air.**

~~X~~Oiler Major characteristics:

- *High absorptions ratio* – Up to 1:10 (~~X~~Oiler : Oil respectively)
- *Encapsulation* of contaminants prevents leaching of the toxic residues for 60-100years.
- *Short contact time* enables instant and comprehensive decontamination and real-time cleaning effect.
- *Easy-to-Implement* - Implementation requires common off-the-shelf means and equipment.
- *Safe for use* - nonhazardous, nonflammable and has extended shelf life.



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How does XOILER works?

XOILER is a powder like agent, as it touches any contaminator it will attach to it, adsorb, absorb and encapsulating the contaminator, avoiding its contact with its environment.

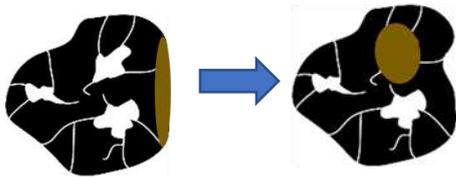
XOILER Particle



the best decontamination effect achieves as Oil and it derivatives are in form of liquid or gas

XOILER will adsorb the contaminator to its surface, then it will suck the oil by capillarity force into its internal hollow spaces than it will block its way out and avoid its leach.

The level of contaminators concentration may meet the EPA and EU standards.



How long will it stabilize the contaminator?

The **XOILER** is a long-lasting polymer, may obtain its encapsulating effect approved by laboratories tests for decades, approved for 60-100 years.

What happens after XOILER encapsulating the contaminators in waterbodies?

The **XOILER** agent full of contaminating oil will sink to the bottom of the water body and oil will be shortly decomposed.

In what environment condition XOILER will be effectively perform?

XOILER has approved through hundreds of laboratory tests to function in water and soil through wide range of environment condition:

it proved to survive frizzing and defrosting as well a high temperature, from -20°C to +60 °C. It is also approved to function in acid as alkaline environment from pH 3.5 to pH 9.0.





How it can be spread on the water?

It can be spread over water surface by wide range of “on-Shelf” means like helicopters, by boats and ships through its fire extinguishing pumps etc.



Can XOILER clean the coast-line

If cost line (sea-shore has been contaminated by oil, XOILER should be spread on the water, along the coast-line, than, wave motion will force contact of XOILER with the contaminator , and the contaminator will be stabilized and can be no longer affect and “paint” sand, structures and even vegetation.

How It will affect living organs such as fish, zooplankton and biofouling?

After XOILER neutralize the contaminator it will e no longer affect any living organs or biofouling.

What would happen to the typical odor f crude oil after contact it's with XOILER?

As XOILER will be spread over oil spill it will instantly eliminate any odor by its reaction with VOC's.

How long does the stabilization process takes?

XOILER will adsorb the contaminators in minutes, as soon as it will touches the contaminators.

The second phase of absorption and encapsulation will take some hours.





How can XOILER effectiveness can be proved?

As soil has been contaminated by oil or other contaminants as listed in the first page, the contaminants will easily migrate to the surrounding environment.

After it will come in contact with XOILER, it will not be able to migrate out.

This phenomenon can be approved by laboratory tests through protocol of test which measure the migration potential of the contaminator into water such as protocol EN-12457/2.

Can XOILER eliminate the contaminating oil?

Yes, as utilizing **XOILER-bio** functioning as an effective surfactant, and as XOILER enriched with complimentary menu for oil decomposing bacteria as well as oxidizing agent it supports a rapid Bio-degradation of oil, even in extremely high concentration of oil (such as 75% and her).

Is it any other way of eliminate oil in treated soil?

Yes, as utilizing **XOILER-oxy**, a reaction of catalytic slow cold combustion will start, and the XOILER will scarify itself as oxidation the oil as well as itself.

Please note that if contaminator includes other contaminating agents but oil (such as hazardous metals etc.) it will be expose and treat again the surrounding environment, so the usage of **XOILER-oxy** should be consider carefully.

How much XOILER is needed for soil treatment?

XOILER may treat and stabilize 3 to 6 time more oil than it weight.

1:3 for crude oil and, up to 1:6 for light derivative of oil such as Diesel, Naphtha or Gasoline.

How is soil treatment can be performed?

It can be easily performed through mixing of the right amount of XOILER with the contaminated soil by many means such as a concrete mixer, or in the field by tractor and grinder.

Please note, the soil must be saturated by water, normally by irrigation before adding **XOILER**.

