



OIL+PETROLEUM+GREASE CLEANUP

**THE NATURAL SOLUTION**

OPG Plus LLC

Toll Free: **844.444.8899**

www.opgplus.com

290 Gus Hipp Blvd, Rockledge, FL 32955

## **COMPETITION COMPARISONS**

### **VS. SURFACE WASHING (SOAPS)**

***Surfactants do not eliminate, remediate, or permanently solve the problem.***

Surfactants (soaps) wash the hydrocarbons (oil) off soil, concrete, rocks or asphalt, and simply moves your problem to a different area. They merely break the hydrocarbons (oil) into smaller droplets which allows the hydrocarbons (oil) to sink or move and can be washed to a different area. After washing or sinking hydrocarbons to a different area, surfactants allow the hydrocarbons (oil) to recombine or reform in a new area.

- ✓ ***OPG+ bioremediates the hydrocarbons to CO2 and water, eliminating the problem in place.***
- ✓ ***Surfactants do not contain nutrients, enzymes, vitamins or constituents to complete metabolic life cycles, so it is impossible for surfactants to solve the problem in place.***
- ✓ ***OPG+ has all the constituents to cause complete and rapid bioremediation of hydrocarbons.***

### **VS. ABSORBENTS**

***ON WATER - Absorbents move the problem, they do not solve it, requiring considerable labor for a minimum cleanup.***

It is almost impossible to put enough absorbent boom or pads out to collect large spills, even small spills are difficult to put in place to absorb moving spills, and then to pick it up before it sinks.

Once saturated, pads/booms have to be collected and stored temporarily on shore, then hauled away and disposed of - exposing workers to hazardous materials.

***SOLID SURFACES - This is moving the problem, after performing an incomplete cleanup.***

To pick up spills on concrete or asphalt is difficult because absorbents have a hard time pulling a spilled material out of the pores of the surface.

It requires a lot of hands-on labor to put the absorbent out, wait for the absorbent to absorb (which in some cases puts workers in proximity of a fire hazard), then pick the absorbent material up, haul it away, store it, then pay to have it disposed of.

- ✓ ***When OPG+ is applied to a water spill, the bio surfactant rapidly emulsifies and solubilizes the spill - detoxifies, reduces fire hazard, and breaks down the ability to adhere to anything.***
- ✓ ***OPG+ causes the spilled material to float so it does not increase the area impacted.***
- ✓ ***Enzymes form digestion binding sites utilized by the rapidly-grown indigenous bacteria who then use the spill as a food source, converting it to CO2 and water. This is the exact process mother nature uses - OPG+ just speeds it up!***

- ✓ ***When OPG+ is applied to concrete, asphalt or soil, the bio surfactants and enzymes actually lift the entire spill leaving no residue. This also removes the potential fire hazard from the spill within approximately 3 minutes. The entire remediation process takes approximately 20-30 minutes.***
- ✓ ***OPG+ molecularly adheres to hydrocarbons, so wherever a spill is washed away or carried by current or wind, OPG+ would stay attached and continue the remediation process until the spilled material is converted to CO2 and water.***



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## COMPETITION COMPARISONS

### VS. COREXIT AND OTHER DISPERSANTS

***Dispersants generally break oil into smaller droplets and then sink the oil / hazardous material it is applied to.***

By breaking the oil into smaller droplets, this also spreads the spill contaminating a larger area than the initial spill itself. When using Corexit, this also means you are spreading Corexit with the oil.

The oil / hazardous material then is caused to sink the oil into the water column. To be listed on the U.S. EPA National Contingency Plan for oil spills as a dispersant, it requires that the dispersant has to sink 45% of the oil in 30 minutes. This hazardous material that is now spread out then sinks into the water column contaminating the oceans lower depths. This is creating a secondary area of contamination affecting fish, mammals or any species that survives or feeds in this area of the water under the surface.

The oil then settles on the oceans' floor, contaminating it with a hazardous material affecting bottom dwelling species and potentially killing them. The sunken hazardous material then is swept along the ocean floor by underwater currents, contaminating expanding areas and adversely affecting more living organisms. This movement of sunken oil then starts to roll over, attaching itself (recombining to some extent) to each other forming tar balls. These tar balls then roll up on beaches now affecting over 200 species of organisms that live and feed in intertidal zones.

#### **Toxicity**

Most dispersants are a makeup of surfactants (a type of soap) and solvents. This makes the dispersant very toxic to living organisms. In the case of Corexit 9527, the solvent utilized is ethylene glycol monobutylether (2 Butoxy - ethanol). This is so toxic that overexposure to your skin may cause kidney failure and eventually death.

During an oil spill in the Gulf of Mexico, Corexit was accidentally sprayed on a Coast Guard ship. As reported to us by the U.S. EPA, the Corexit droplets dissolved the paint on the Coast Guard vessel. We can only imagine what happened to any of the personnel that came in contact with this Corexit overspray.

- ✓ ***OPG+ rapidly emulsifies and solubilizes the spill (detoxifies it) while reducing it as a fire hazard and lessens the spill's toxic impact immediately.***
- ✓ ***Once emulsification and solubilization are complete, the oil will not adhere to birds, mammals, any species, wood, metal, sand, soil, rocks, ships or humans.***
- ✓ ***OPG+ has all the constituents to rapidly grow bacteria and carry out all metabolic processes so the oil is rapidly converted to harmless CO2 and water.***
- ✓ ***OPG+ causes the oil to float so only the surface is impacted by the spill (which the spill impacted anyway). Thus, there is no secondary impact to the water column, no impacting of the ocean floor, or impacting of intertidal zones.***
- ✓ ***OPG+ Corporation technicians routinely drink a few ounces of OPG+ during demonstrations to prove it is non-toxic.***
- ✓ ***Toxicity tests on Mysids when performed by the U.S. EPA proved OPG+ to be virtually non-toxic.***
- ✓ ***OPG+ solves (remediates) the spill in place. It does not move the problem to another area. OPG+ emulates mother nature exactly.***

***For more information please visit [OPGplus.com](http://OPGplus.com)***