

Innovative eco-friendly bio- solvent for combating sea surface and sedimented oil pollution

Paraskevas Theodorou

Cyprus (info@meydansolutions.com)

The combating of oil spill at sea surface by chemical dispersants accelerates the evaporation and disperse the oil into the water column, where it is broken down by natural processes and/or is sedimented at the sea bottom, especially at near coastal shallow areas, ports and marinas.

The usual methodology for cleaning the sedimented oil from the sea bottom is mainly carried out via excavation and dumping of the polluted sediment into deeper sea areas, where the contamination is transferred from one area to another.

The eco-friendly bio-solvent MSL Aqua 250 is an innovative new solution based mainly on natural constituents. The action mechanism and the effectiveness of this eco-friendly solvent is based on the high surface tension process. Organic compounds, including hydrocarbons upon coming in contact with MSL Aqua 250 solvent generate a significant surface tension reaction, which is able to alter the organic compounds to liquid form and then to drastically evaporate it.

The use of MSL Aqua 250 solvent, both at sea surface and at the bottom, has the following advantages compared to the dispersants:

- Efficient solution without transferring the pollution from sea surface to the water column and to the bottom or disturbing the Aquatic Eco System.
- Non-Toxic.
- Environmentally friendly with a restoration of marine life in the Eco System.
- Cost effective.

The MSL Aqua 250 solvent has been tested in cooperation with the Cyprus Department of Fisheries and Marine Research and the Technological University of Cyprus and used during the years 2015 and 2016 in marinas and fishing shelters in Cyprus faced oil pollution, with high concentration in the sea water and at the sea bottom of chemical parameters (BOD5, COD, FOG, TKN, TP, TPH), with excellent results.