

# ADERCO 2055G

## EFFECT ON FUEL SLUDGE REGENERATION

Aderco 2055G 4 in 1 Fuel conditioner is a 100% Vegetal based, Environmental friendly and Carbon Neutral product.

### Aderco 2055G: 4 in 1

Aderco 2055G 4 in 1 Fuel Conditioner offers four different actions to one product, is a Combustion Improver, Fuel Stabilizer, Sludge Dispersant and Microbial Inhibitor.

### High Flash Point

Aderco 2055G does not contain Petroleum-based derivatives or other diluents to its composition. This leads to a high flash point exceeding 146°C.

This means that ADECO 2055G is following the fuel into the combustion chamber and participating to the combustion process, where other rival products not reaching, being evaporated to much earlier stages of fuel preparation.

### Surfactant

The Aderco 2055G is a surfactant by nature. Surfactants are the chemical compositions that have polar and non-polar properties to the same molecule.

Surfactants are reducing the surface tension of a liquid, which in this case is the fuel.

Surfactants are like a liquid soap. The soaps are attracting the water and repel the fat, the Aderco 2055G is doing the opposite. Is repelling the water and attracting the fuel.

Aderco 2055G is a kind of soap for the fuel and cleans the fuel from water and other impurities.

### Water Repellant

Aderco 2055G is a strong water repellant, enhancing and accelerating the water extraction from the fuel.

Aderco 2055G is forming an interface barrier between fuel and water and fuel and air.

The interface between fuel and water functioning as a barrier and is safeguarding the fuel from the impurities found within water and to the bottom of the tanks.

Even in case of rough seas the impurities from the bottom will not be able to re-integrate to the fuel mixture.

The interface between fuel and air is not allowing air to pass the barrier and to oxidize the fuel.

### Dosage

Aderco 2055G is dosed to the fuel storage tanks prior bunkering. The initial dosage is 2 litres per 55 metric tons of fuel and all subsequent dosage should be 1 litre per 55 metric tons of fuel.

The initial double dosage is forming a layer to all metal surfaces (storage tank walls, fuel pipes etc) and initiate the interfaces between fuel and water/air.

The acting dosage to the fuel is remaining to the 1 litre per 55 metric tons.

## Self-Dispersant

The Aderco 2055G is self-dispersant and requires 48-72 hours to fully disperse to the fuel matrix. It is a slow acting product, not creating rapid and violent actions to the fuel.

## What is Sludge?

Sludge is fuel. A fuel is forming sludge when is destabilized.

## How Sludge happens?

In general, within the fuel matrix are in suspension heavy hydrocarbon chains. When the polarity equilibrium of the fuel is neutral, then the fuel is stable.

If the equilibrium polarity de-stabilized for any reason then the heavier hydrocarbons are stick together becoming even heavier and drop to bottom of the tanks forming the sludge.

## Sludge Dispersant

Considering the above, the Aderco 2055G will smoothly dissolve the sludge emulsion of water/fuel and impurities found to the bottom of the tanks. Will regenerate and reclaim the hydrocarbon parts captured to this emulsion, which is a usable fuel.

The water and impurities will remain at the bottom of the tank as the Aderco 2055G will extract the water and will form the interface barrier between fuel and water.

Having in mind that the harmful Al&Si (catfines) are water attracted, these will stick to the water droplets and the most of them are extracted to the settling tanks (approx. 50%) or will remain to the bottom of the tank with the water. Aderco 2055G being water extracting media, will accelerate and enhance this action.

Considering also a fair performance of the purifiers and backflushing filters, it is rather unlikely that catfines will reach to the engine parts at substantial portion and size to harm the fuel injection components and engine major parts.

## Continuous Treatment

Aderco 2055G 4 in 1 Fuel Conditioner is a mild acting product that needs time to perform completely. This is one of the reasons that we suggest the continuous treatment of the fuels with Aderco 2055G.

## Brochure

Please review the Aderco 2055G brochure and especially to page 14 to form your own opinion how the surfactant action of Aderco 2055G is functioning.