

# FUELTREAT XLS

## LUBRICITY AND STABILITY IMPROVER FOR DIESEL FUELS & MGO

### DESCRIPTION

Effective January 1st, 2010, the European Union mandates the consumption of 0.1% sulphur content marine gasoil (MGO) for vessels in ports (directive 2005/33/EU). The vessels calling on California ports must operate on a 0.5% sulphur distillate fuel no less than 24 nautical miles from port according to the California Air Resources Board (CARB).

This requires a transition for main engines operating on heavy fuel to the new low sulphur distillate fuel. Unfortunately, the hydroprocessing process used to remove the sulphur from fuels also removes the lubricity properties of the fuel. The injection equipment of diesel engines is prone to excessive pump wear when using low or ultra-low sulphur fuels, since this kind of fuels have relatively low viscosity and reduced lubricating value.

**FUELTREAT XLS** is an innovative lubricity additive for use in low sulphur diesel fuel, ultra-low sulphur diesel fuel and 0.1% sulphur MGO.

**FUELTREAT XLS** stabilizes the fuel and improves the lubricity of the fuel, the fuel pumps and injectors and maintains clean injectors. This happens thanks to its low content of sulphur. It comprises dispersants, surfactants, detergents and lubricity additives. Its highly effective fuel lubricant minimizes metal-to-metal contact, thus extending the life of fuel system components.

Thanks to the stability that **FUELTREAT XLS** provides, sediment and asphaltenes are maintained in suspension during storage, so that sludge formation is prevented.

**FUELTREAT XLS** utilizes anti-scuff technology satisfying BS ISO 12156-1, ASTM D6079 and IP 450/2000. Its lubricity

improvement has been evaluated by the High Frequency Reciprocating Rig (HFRR).

When stored for a long time, fuel degradation is prevented thanks to the oxidation stability that **FUELTREAT XLS** offers to the fuel. Testing according to ASTM D2274 shows substantial improvement in thermal stability in all distillate fuels treated with **FUELTREAT XLS**, regardless of initial fuel quality.

### APPLICATION

**FUELTREAT XLS** can be used in fuel storage tanks by pouring or pumping. Add **FUELTREAT XLS** before or during every bunkering, so that it can be thoroughly mixed and dispersed in the fuel. Optionally, **FUELTREAT XLS** may also be dosed in line, using a chemical metering pump.

### USE AND DOSING

Pay attention to the grade of fuel prior to adding **FUELTREAT XLS**. If you are not sure of the exact lubricity characteristics of the fuel, adding more of **FUELTREAT XLS**, or overdosing by mistake is absolutely safe. A dosage rate of 1:10'000 to 1:5'000 (i.e. 100 to 200ppm) is adequate for **FUELTREAT XLS**, depending upon the performance required. In particular,

1. When used with distillate fuel (MGO and MDO), **FUELTREAT XLS** should be dosed at 1/5000 (1 liter for 5 tons) of low sulfur fuel.
2. When used with intermediate or heavy fuel, **FUELTREAT XLS** should be dosed at 1/3000 (1 liter for 3 tons) of low sulfur fuel.

- Usage in standard, low sulphur and ultra-low sulphur diesel & 0.1% sulphur MGO fuels.
- Improves the lubricity of the fuel.
- Stabilizes the fuel.
- Improves the thermal stability of the fuel.
- Extends the life of components by minimizing metal-to-metal contact.
- Lubricates fuel pumps and injectors.
- Maintains clean injectors.
- Anti-scuff technology improving lubricity, evaluated by the High Frequency Reciprocating Rig (HFRR) test.
- Improved oxidation stability of hydrotreated fuels, certified according to ASTM D2274.

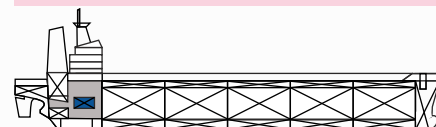
**PRODUCT CODE:** 140103

### PROBLEMS SOLVED:

- Excessive pump wear of the injection equipment.
- Thermal stability / degradation of fuels.

### APPLICABLE AREAS:

- Main engine, auxiliary engine, auxiliary boiler.
- Service tank.



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When used as a stability improver and to maintain color, **FUELTREAT XLS** should be dosed at 5-30 ml per ton of fuel bunkered.

When dosing **FUELTREAT XLS** for dispersing the sludge and inhibiting its formation, 35-70 ml per ton of fuel bunkered are enough.

## PRODUCT PROPERTIES

Compatible with all normally used metals and their alloys, but rubber/synthetic rubber may swell.

Appearance	Liquid
Solubility	Soluble in fuel oil in all proportions
Density at 20°C	0.88 ± 0.05 g/cm <sup>3</sup>
Flash Point	>61°C
pH (undiluted)	N/A

*For detailed information on safety and health, please refer to Material Safety Data Sheet and/or Product Label.*

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