PRO-MA PERFORMANCE PRODUCTS

PRODUCT INFO DATA SHEET

MARINE
DIESEL TREATMENT

FUEL ADDITIVE

PRODUCT INFORMATION

Pro-Ma Performance Products Marine Diesel Treatment has been in use since its formulation in 1953, by many large commercial and industrial enterprises. Our laboratories have been manufacturing quality fuel products since 1909.

Since its conception, Marine Diesel Treatment has always proven extremely effective when used consistently, in producing significant savings in areas of fuel consumption, maintenance, downtime and repair costs.

Significant improvements have been made to the active ingredients in order to increase performance in conjunction with new engine design. Marine Diesel Treatment is a product that has been proven to be more relevant and advantageous today than when first invented.

Marine Diesel Treatment will not harm trap oxidizers, converters, on board computers or particulate traps.

FEATURES AND BENEFITS

1. SURFACTANT
Controls condensation, sludge, water and bacteria.

2.DETERGENT
Helps clean injectors, fuel system, cylinders and exhaust.

3.POLYBUTANE ASHLESS LUBRICANT
Assists in lubrication of vital components in pumps, injectors and upper engine area to reduce wear that could be associated with low sulphur diesel.

4.COMBUSTION MODIFIER
Assists in more complete combustion of fuel, reducing carbon deposits and saving fuel.

5.COLD FLOW IMPROVER
Helps prevent formation of wax at low ambient temperatures particularly when using Bio Diesel Fuel.

APPLICATION

Marine Diesel Treatment is suitable for existing light and Ultra Low Sulphur Diesel (ULSD) in the following types of Diesel Engines: 4-Stroke, 2-Stoke, Automotive, Marine and Stationary. It is beneficial for all naturally aspirated and turbo-charged engines.

SURFACTANT

This component in Marine Diesel Treatment controls condensation, sludge, water and bacteria.

Marine Diesel Treatment contains a water control agent that helps to remove water from fuel tanks, lines and bulk storage tanks. The control agent breaks water droplets into particles that are approximately 1 micron in diameter and disperses them into the fuel. This water passes through the entire fuel system in microscopic form and is converted into steam in the combustion chamber. When water is removed from the fuel system, rust is prevented and microbiological (algae) growth at the water-fuel interface is controlled.

DETERGENT

Marine Diesel Treatment contains a detergent which is designed to help remove diesel fuel and oil related deposits such as gums, varnishes and carbon residues. Continuous use of Marine Diesel Treatment can provide engine deposit control by removing and inhibiting the build up of deposits in the combustion chamber, ring grooves, valves, pumps and injectors. This can result in prolonged engine and component life, increased operating efficiency and decreased fuel consumption.

Marine Diesel Treatment contains a dispersant that is designed to break down fuel related sludge and oxidation residues into small particles that are less than 1 micron in diameter. Because of the dispersant action, fuel filter and injector blockages are minimised and filter life is extended.

POLYBUTANE ASHLESS LUBRICANT

Since the introduction of the Ultra Low Sulphur Diesel and Bio Diesel, lubrication for fuel injector pumps and injectors has caused some problems. Marine Diesel Treatment contains a clean burning lubricant, Polybutane Ashless Lubricant that assists in lubrication of fuel injector pumps, fuel injectors and upper engine components, resulting in a significant saving in maintenance.

COMBUSTION MODIFIER

The Marine Diesel Treatment contains a Combustion Modifier which enables the fuel to burn more completely in the cylinders. This reduces or eliminates black smoke from the exhaust and results in increased power and economy by converting more of the energy in the fuel into more power at the propellor. Government Department Certified Tests have shown a 9.5% horsepower improvement while delivering a 10% improvement in fuel economy.

No special tuning of the engine is required when using Marine Diesel Treatment. In addition to the improvement to the combustion area, crankcase contamination is greatly reduced by control of water caused through condensation. The reduction of unburnt carbon and the freeing of piston rings in their grooves further reduces

contamination accrued during or from blow-by, leaving the crankcase clear of sludge and other deposits. These results have been noted in engines dismantled and checked after exceeding an equivalent of 5,000 hours.

COLD FLOW IMPROVER

In extremely cold conditions, naturally occurring waxes can solidify where the fuel will barely flow. This makes cold starting difficult. The Cold Flow Improver in Marine Diesel Treatment assists in cold starting by reducing the incidence of the molecules of the waxes joining and forming a solid.

The criteria used in evaluating the effectiveness of a flow improver in fuel near the pour point is referred to as the "Pumpability Test"

In a laboratory applying the "Pumpability Test" to the Marine Diesel Treatment, the Flow Improver lowered the pour point by 9˚C to 17˚C in three different fuels. The result will vary with the quantity of kerosene in the fuel as is the case in winter blends where an AD40 fuel is used.

The Cold Flow Improver will reduce or eliminate the tendency for fuel filters to block fuel flow in wax laden fuel and bio diesel at low ambient temperatures.

DOSAGE

Marine Diesel Treatment should be added directly to the fuel tank preferably just before filling.

The recommended treatment ratio is 1 litre treats 500 litres of fuel or 50ml to 25 litres of fuel.

When used in bulk storage tanks at the time of refilling, add 1 litre of Marine Diesel Treatment to every 500 litres of fuel.

Bio Diesel Fuel ratio

1 Litre : 250 Litres of Bio diesel or
100mL : 25 Litres of Bio diesel

The Marine Diesel Treatment will quickly disperse throughout the tank. Continuous usage can control water and future condensation and remove old deposits from engines.

Marine Diesel Treatment assists in stabilising fuel.

COMPOSITION

Marine Diesel Treatment is a balanced compound of ashless organic materials in a pure hydrocarbon solvent. Marine Diesel Treatment is completely soluble in diesel fuel.

U.S. TESTING COMPANY, INC. Report #77147 (#900 Performance Diesel Treatment)

Summary: 'The material under the conditions of test, manifested itself to be non-corrosive, volatile and without any significant acidic or alkaline properties.'

The Regular Use of Marine Diesel Treatment can:

- Improve performance
- Reduce fuel consumption
- Clean injectors
- Reduce water problems
- Control bacteria in the fuel system
- Prevent rust in fuel tanks
- Reduce exhaust smoke and emissions (Particulate)
- Extend fuel filter life
- Remove carbon build up
- Prevent sludge in the fuel tank
- Reduce maintenance and downtime
- Maintain turbo-charger cleanliness and efficiency

SPECIFICATIONS

Specific Gravity @ 15.5°C (60°F) (ASTM D-92)..... 0.801
Gravity API @ 15.5°C (60°F).....45.1
Flash Point (C.O.C.) (ASTM D-1298).....48.8°C (120°F)
Pour Point (ASTM-D-97) .....Below 65°C (-85°F)
Colour ..... Dark Blue
Initial Boiling Point..... 155°C (311°F)
Final Boiling Point .....302.2°C (576°F)
Ash Content ..... Less than 0.005%
Viscosity, kineniatic @ 40°C (104°F) - (ASTM D-445).....1.51cSt

NOTE: MARINE DIESEL TREATMENT CONTAINS NO METHANOL, ETHANOL OR ISOPROPANOL ALCOHOLS.

HANDLING

Contains petroleum distillates. Do NOT store near heat, sparks or flame. Wash with soap and water if product contacts skin. KEEP OUT OF REACH OF CHILDREN. A Material Safety Data Sheet is available from Pro-Ma Systems.

WARNING

Combustible. Harmful or fatal if swallowed.

MEDICAL ADVICE

Contains petroleum distillates. If swallowed, do NOT induce vomiting. Call a doctor immediately.

NOTE

Can be used with Diesel Fuel Bug Biocide.

AVAILABLE SIZES

1 litre, 5 litre, 20 litre, 60 litre and 208 litre.

Marine Diesel Treatment
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