

## 138SDPP SCHAEFFER'S DIESEL PERFORMANCE PROTECTOR

Schaeffer's DIESEL Performance Protector is a multifunctional, ultra low sulfur compliant diesel fuel additive specifically formulated to provide improved fuel efficiency, injector cleanliness and fuel stability along with increased power and fuel lubricity for marine diesel engines. Schaeffer's DIESEL Performance Protector provides clean-up and keep clean performance throughout the entire fuel system, as well as fuel stability up to one year and can double fuel filter life.

Schaeffer's DIESEL Performance Protector can be used in all types of diesel fuel including ultra low sulfur diesel fuel, low sulfur diesel fuel and biodiesel blends.

### Features and Benefits

Schaeffer's DIESEL Performance Protector contains a highly concentrated multi-functional additive package, which provides the following benefits when used at the recommended treatment ratio:

#### **Performance**

- Improvement of the fuel's cetane rating up to 5 points.
- Improves fuel economy up to 3%.
- Reduced emissions exhaust smoke, particulates and black smoke.

#### **Contamination Protection**

- Corrosion inhibitor for fuel wetted surfaces.
- Moisture control with moisture dispersant to help prevent biological activity.
- Cummins L-10 Injector Depositing Test and Cummins N-14 Injector Corrosion Test Performance.
- Dispersion of insoluble gums and varnish present in low quality fuels.

#### **Wear Protection**

- Excellent anti-wear protection for injectors and fuel pumps.
- Supplemental ring and valve-train anti-wear protection.
- Lubrication of the upper cylinders, fuel pumps and injectors

#### **Storage**

- Increased fuel thermal stability to resist thermal degradation.
- Inhibition of oxidation during storage which extends storage stability.
- Rust and corrosion protection to the entire fuel system.

### Increased Lubricity Protection with SynShield®

Today's diesel powered vessels and watercraft feature low emission engines that are more susceptible than ever to diesel fuel related wear. Diesel engine designs are employing the use of higher fuel injection pressures, hotter fuel return temperatures, higher operating temperatures and complex engine geometry to control emissions. All of these factors result in increased fuel system wear and can shorten engine life. SynShield® technology is incorporated into Schaeffer's DIESEL Performance Protector to increase lubricity and provide:

- Non-acidic, full synthetic ester chemistry
- Reduced pump and injector wear
- Non-metallic, ashless, phosphorus free

## **Better Protection from Water Contamination**

HydroShield is a non-alcohol jet fuel deicer/water dispersant which eliminates the problems associated with entrained and/or dissolved water present in the fuel by dispersing the water into tiny droplets. These tiny droplets are suspended in the fuel so they can be carried with the fuel in controlled amounts through the fuel filters, fuel lines, and into the combustion chamber to be burned with the fuel. Because the remaining water is dispersed and suspended in the fuel, Schaeffer's DIESEL Performance Protector prevents the formation of stable fuel-water emulsions.

## **Bulk Treatment Ratio**

One gallon of Schaeffer's DIESEL Performance Protector to 3,000 gallons of diesel fuel.

## **Storage Requirements**

Schaeffer's DIESEL Performance Protector is registered for use and meets the US EPA requirements for blending into low sulfur and ultra low sulfur diesel fuels. When used at the recommended treatment ratio, Schaeffer's DIESEL Performance Protector will not have any measurable effect on the calculated cetane index or aromatic and sulfur content of the diesel fuel.

**THIS DIESEL FUEL ADDITIVE CONTAINS LESS THAN 15PPM OF SULFUR AND COMPLIES WITH THE FEDERAL LOW SULFUR CONTENT REQUIREMENTS FOR USE IN DIESEL MOTOR VEHICLES AND NON-ROAD ENGINES.**

**THIS DIESEL FUEL ADDITIVE IS COMPATIBLE AND APPROVED FOR USE WITH DIESEL FUELS THAT MEET ASTM D975 AND BIODIESEL THAT MEETS ASTM D6751 AND BIODIESEL THAT MEETS EN 14214.**

## **TYPICAL PROPERTIES**

Specific Gravity	0.9271-0.9299
Flash Point °F/°C PMCC (ASTM D-93)	131°-136°/55°-58°
Ash Content %wt. (ASTM D-482)	0
Copper Strip Corrosion Test (ASTM D-130)	1a
Sulfur Content ASTM D-7039	<15 ppm