

# TECHNICAL DATA

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#### 138SPA-400 PREMIUM SUMMER

SPA-400 Premium Summer 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. SPA-400 Premium Summer provides clean-up and keep clean performance throughout the entire fuel system, as shown by the Peugeot XUD9 DW-10 Injector Depositing Test.

SPA-400 Premium Summer 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**

SPA-400 Premium Summer contains a highly concentrated multi-functional additive package, which provides the following performance benefits when used at the recommended treatment ratio:

- Improvement of the fuel's cetane rating up to 5 points.
- Faster warm-up.
- Clean-up & Keep clean performance proven in the Peugeot DW-10 Injector Depositing Test
- 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.
- Excellent deposit control for light duty and medium duty direct injected diesel engines.
- Improved combustion by completely vaporizing the fuel into smaller particles, to provide better fuel economy and prevent a significant loss in engine power.
- Improves fuel economy up to 3%.
- Modification of existing injector deposits, which allows for their removal and safe passage into the combustion chamber where they can be burned.
- Reduced emissions exhaust smoke, particulates and black smoke.
- 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.
- 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.

Coupled with this multi-functional additive package is a non-alcohol jet fuel deicer/water dispersant, HydroShield, 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, SPA-400 Premium Summer prevents the formation of stable fuel-water emulsions.

# Increased Lubricity Protection with SynShield®

Today's diesel powered vehicles 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.

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SPA-400 Premium Summer utilizes Schaeffer Fuel Additives' SynShield® technology to incorporate a proprietary, ester based, neutral chemistry specifically formulated for superior lubricity performance, unlike mono and other acidic based lubricity type chemistries. SynShield® provides the following benefits to distillate fuels:

- Non-acidic fully synthetic ester chemistry
- Reduces pump and injector wear
- Passes all lubricant interaction tests
- Non-metallic
- Phosphorus free
- Ashless
- Protects all diesel fuel injection systems

## **Bulk Treatment Ratio**

One gallon of SPA-400 Premium Summer to 3,000 gallons of diesel fuel.

## **Storage Requirements**

SPA-400 Premium Summer 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, SPA-400 Premium Summer will not have any measurable effect on the 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
Flash Point °F/°C PMCC (ASTM D-93)
Ash Content %wt. (ASTM D-482)
Copper Strip Corrosion Test (ASTM D-130)
Sulfur Content ASTM D-7039

0.9271-0.9299 131°-136°/55°-58° 0 1a <15 ppm