

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 as shown by the Peugeot XUD9, DW10B and DW10C Internal Diesel Injector Depositing (IDID) Tests.

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:

- Increases cetane rating up to 5 points.
- Clean-up & Keep clean performance proven in the Peugeot XUD9, DW10B and DW10C Internal Diesel Injector Depositing (IDID) Tests
- Restores, improves and maintains horsepower while improving fuel economy up to 3%.
- Excellent anti-wear protection for injectors and fuel pumps; supplemental ring and valve-train anti-wear protection; and lubrication of the upper cylinders, fuel pumps and injectors.
- Improves lubricity to meet EMA and NCWM limits.
- 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. HydroShield is moisture removal additive technology that contains twice the industry standard for moisture elimination.

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.

APA-400 is blended with Schaeffer's proprietary lubricity additive, Synshield® to protect today's diesel engines from fuel system related wear. Synshield® surpasses industry standards for diesel fuel lubricity; and is the only lubricity additive that does not contain sulfur or sulfur containing compounds to exceed the EPA's new standard. Synshield® prevents fuel system wear and injector scoring by forming a protective layer on the metal surfaces of the fuel system and injectors and provide boundary lubrication between metallic parts in critical fuel system components. This protective boundary lubrication film not only

reduces friction and wear between the fuel system surfaces that are in relative motion but also increases fuel system component life, thus leading to less downtime and longer equipment life.

Bulk Treatment Ratio

Clean up Performance: One gallon of SPA-400 Premium Summer to 1,500 gallons of diesel fuel

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

Meets XUD9, DW10B, and DW10C Peugeot Injector Deposit Tests at 1:3000 treat ratio.

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	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