



# TECHNICAL DATA

102 Barton Street, St. Louis, Missouri 63104

In-State (314) 865-4100/Out of State 800-325-9962/Fax (314) 865-4107 <http://www.schaefferoil.com>

## 137CTPS CARBON TREAT™ PREMIUM SUMMER

### Application:

Carbon Treat™ Premium Summer is a multifunctional, ultra-low sulfur compliant diesel fuel additive formulated to prevent and control the formation of asphaltenes and other unstable compounds. These compounds, caused by the extreme pressures and temperatures encountered in high pressure common rail fuel injection systems, can lead to the formation of deposits which plug fuel filters and foul injectors. Carbon Treat™ Premium Summer has 3X the detergency needed to provide clean-up and keep clean performance, as shown by the Peugeot DW-10 Injector Depositing Test.

Although Carbon Treat™ Premium Summer is developed for new model vehicles it can be used in any diesel powered vehicle and in all types of diesel fuel including low sulfur diesel fuel and biodiesel blends.

### Features and Benefits:

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

1. Improves fuel efficiency
2. Restores, improves and maintains horsepower
3. 3X the detergency needed for Clean-up & Keep clean performance proven in the Peugeot DW-10 Injector Depositing Test
4. Improvement of the fuel's cetane rating up to two points.
5. Excellent anti-wear protection for injectors and fuel pumps; supplemental ring and valve-train anti-wear protection; and lubrication of the upper cylinders.
6. Inhibition of oxidation during storage for extended storage stability.
7. Rust and corrosion protection to the entire fuel system.

Coupled with this multifunctional additive package 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, Carbon Treat™ 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.

Continued on next Page

TD-137CTPS (04/2014)

The mandate of the United States EPA to reduce the sulfur content of diesel fuels to control emissions has resulted in the elimination of certain naturally occurring, polar compounds that protect the fuel system from wear by forming a protective layer on the metal surfaces of the fuel injection system. The increased use of the hydrotreating and hydrocracking refining processes to produce the maximum 15 ppm ultra low sulfur diesel fuel causes these naturally occurring polar compounds to become either chemically altered or completely removed which leads to increased engine and fuel system wear.

Carbon Treat™ Premium Summer 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 provides 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.

### **Treatment ratio:**

One gallon Carbon Treat™ Premium Summer to 1,500 gallons of diesel fuel  
 0.67 gallons Carbon Treat™ Premium Summer to every 1,000 gallons of diesel fuel  
 0.5 gallons Carbon Treat™ Premium Summer to every 750 gallons of diesel fuel  
 8.5 ounces Carbon Treat™ Premium Summer to every 100 gallons of diesel fuel.  
 3.5 ounces Carbon Treat™ Premium Summer to every 40 gallons of diesel fuel

Carbon Treat™ Premium Summer is registered and meets US EPA requirements for blending into low sulfur diesel fuels. When used at the recommended treatment ratio, Carbon Treat™ Premium Summer will not cause a measurable effect on the cetane index, sulfur content or aromatic content of the fuel.

**THIS DIESEL FUEL ADDITIVE 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                         | 0.922       |
| Flash Point °F/°C (PMCC) (ASTM D-93)     | 137°/58°    |
| Pour Point °F/°C (ASTM D-97)             | -76°F/-60°C |
| Ash Content % wt (ASTM D-482)            | 0           |
| Copper Strip Corrosion Test (ASTM D-130) | 1a          |
| Sulfur Content ASTM D-7039               | <15 ppm     |