



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>

#141 BIOTREAT™ PREMIUM DIESEL

Application:

BioTreat™ Premium Diesel is a multifunctional biodiesel fuel additive that is specially formulated to provide stability and control many of the problems encountered with biodiesel blends, such as oxidation stability, water absorption and separation, fuel system corrosion, formation of sludge and deposits in the fuel system, thermal stability and the formation of fuel injector deposits. Bio Treat™ Premium Diesel provides clean-up and keep clean performance, as shown by the Peugeot DW-10 Injector Depositing Test, throughout the entire fuel system.

BioTreat™ Premium Diesel can be used in any combination blend of biodiesel and diesel fuel, such as B50, B20, B11, B5 and B2.

Features and Benefits:

The use of BioTreat™ Premium Diesel provides the producers and distributors of biodiesel blends an effective means to insure product quality after the fuel has left their facility. For end users, BioTreat™ Premium Diesel extends the storage life and performance of the biodiesel blend they are using

BioTreat™ Premium Diesel contains a highly concentrated multi-functional additive package, which allows the BioTreat™ Premium Diesel to provide the following performance benefits when used at the recommended treatment ratio:.

1. Increased oxidation stability.
2. Inhibition and termination of the formation of peroxides in the fuel during storage.
3. Prevention of the formation of sludge and deposits during storage.
4. Increased thermal stability to the biodiesel and biodiesel blends in order to provide the ability to resist thermal degradation.
5. Extended storage stability.
6. Elimination of the buildup and formation of corrosive low molecular weight acids and biopolymers.
7. Rust and corrosion protection to the entire fuel system
8. Improvement of the pure biodiesel and biodiesel blends cetane number up to 4 numbers.
9. Clean-up & Keep clean performance proven in the Peugeot DW-10 Injector Depositing Test
10. Superior Cummins L-10 Injector Depositing Test and Cummins N-14 Injector Corrosion Test Performance.
11. Dispersion of insoluble gums and varnish.
12. Excellent deposit control for light duty and medium duty in-direct injected diesel engines.
13. Improved combustion of the fuel by completely vaporizing the fuel into smaller particles, thus providing better fuel economy and preventing a significant loss in engine power.
14. Improved fuel economy up to 5%.
15. Modification of existing injector deposits, allowing for their removal and safe passage into the combustion chamber where they can be burned
16. Reduced emissions exhaust smoke and particulates.
17. Helps control the acidic by-products produced by the combustion of diesel fuel.
18. Helps control the conditions that lead to foul smelling fuel, stringiness and plugged filters due the ability of BioTreat™ Premium Diesel to control moisture.

Improved Water and Moisture Control Properties

It is well known that biodiesel blends possess reduced water separating properties and have been shown to absorb water from the atmosphere. These characteristics can act as a nutrient for bacterial and fungal growth, and cause problems such as increased fuel aging, the formation of fuel system deposits and sludge, blocking of fuel filters and increased corrosion of the fuel system and the vehicles fuel injection system.

BioTreat™ Premium Diesel contains a non-alcohol jet fuel deicer/water dispersant. This non-alcohol jet fuel deicer/water dispersant eliminates the problems associated with entrained and/or dissolved water present in the fuel by absorbing and 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. By having any remaining water dispersed, absorbed and suspended by the non-alcohol jet fuel deicer/water dispersant, BioTreat™ Premium Diesel will:

- 1. Prevents the formation of stable fuel-water emulsions.**
- 2. Reduces the potential for bacterial and fungal growth.**
- 3. Prevent the formation of sludge and deposits**
- 4. Slows down the aging of the biodiesel and biodiesel blends.**
- 5. Provide increased corrosion protection.**

Treatment Ratio:

One gallon BioTreat™ Premium Diesel to 1,500 gallons of fuel.

BioTreat™ Premium Diesel is registered and meets US EPA requirements for blending into low sulfur diesel fuels and ultra low sulfur diesel fuels. When used at the recommended treatment ratio, BioTreat™ Premium Diesel 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 EN 14214.

TYPICAL PROPERTIES

Specific Gravity	.0.920-0.935
Flash Point °F/°C (PMCC) (ASTM D-93)	129°-140°/54°-60°
Pour Point °F/°C (ASTM D-97)	<-30°F/<-34°C
Ash Content % wt (ASTM D-482)	0
Copper Strip Corrosion Test (ASTM D-130)	1a
Sulfur Content ASTM D-7039	<15 ppm