



Performance Specialties

Legal Diesel™ Fuel Additive 1400 LFH

1400 LFH is a multifunctional middle distillate fuel additive. It functions as a wax modifier to improve low temperature operability of diesel fuel.

Innospec Fuel Specialties is the only manufacturing company solely focused on fuel and fuel additive technology.

1400 LFH provides the following performance benefits:

- Lowers Cold Filter Plugging Point
- Lowers Pour Point
- Prevents fuel gelling in low temperatures
- Disperses wax during extended engine shutdowns in cold climates
- Aids against fuel filter icing
- Typical cetane boost from 1 to 3 numbers
- Diesel Detergent
- Water dispersant to help safely remove water on a gradual basis
- Fully synthetic non-acid, ester lubricity improver
- Caustic resistant corrosion inhibitor
- Contains antioxidants to protect thermal and oxidative stability

Addition

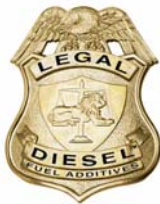
1400 LFH may be continuously or batch blended into diesel fuel as a concentrate or as a stock solution. Proper blending and handling procedures must be followed due to the nature of all low temperature operability additives. Blend the additive with the fuel at temperatures at least 10°F above the cloud point of the fuel. Ensure the additive is at or above minimum handling temperatures to avoid potential performance issues. Verify that the additive is completely dissolved into the fuel.

Material Compatibility

1400 LFH is compatible with the following materials of construction: mild steel, 304 stainless steel, 316 stainless steel, Teflon, and Viton. Do not use with Hypalon, ethylene, propylene, neoprene, Buna-N, or natural rubber. Copper, brass, or bronze (yellow metals) should not be used with neat additive.

Personal Safety, First Aid and Storage and Handling

See the Material Safety Data Sheet for product specific information. **DO NOT HEAT.** Thermally decomposes above 248°F (120°C). Risk of explosion if heated under confinement. See the Material Safety Data Sheet and the current version of Innospec PLMR on Cetane Improver Safety and Handling for product specific information. This bulletin presents background information on thermal stability for storage and safe handling. This bulletin also describes proper equipment for safe unloading from bulk containers.



40CFR80.591 Compliance Statement:

The sulfur content of this diesel fuel additive does not exceed 15 ppm. This is a LEGAL DIESEL™ Fuel Additive Product.

Typical Properties

Appearance	pale yellow liquid
Specific Gravity, 60/60°F (15.6/15.6°C)	0.900
Density, lb./gal, 60°F, (15.6°C).....	7.50
Flash Point, PMCC, °F (°C).....	90 (32.2)
Pour Point, °F (°C)	<-22 (-30)
Viscosity, cSt @	
100°F (37.8°C)	2
68°F (20°C)	3
32°F (0°C)	5
0°F (-17.8°C)	11

Recommended Treat Rate

1 gallon : 667 gallons, or 1.5 gallons : 1000 gallons, or 0.06 gallons : 40 gallons, or 1500 mg/L

Registered EPA Maximum Treat Rate = 3750 mg/L

Technical Support: (302) 454-8100

Customer Service
Resource Center: (800) 441-9547

