

Power Mix 500 ULSD

Multi-Functional Fuel Treatment

No. 512

DESCRIPTION:

Power Mix 500 ULSD is a multi-functional diesel fuel treatment designed to clean and maintain the cleanliness of fuel systems, increase engine efficiency and replace the natural lubricity removed from fuel during the hydro cracking process used to make Ultra Low Sulfur Diesel (ULSD). **Power Mix 500 ULSD** can be used in LSD, ULSD, 100% Biodiesel and Biodiesel blends. The continual use of this product will reduce the overall operating cost of diesel engines by providing a fuel that will minimize injector wear, injector fouling and tip erosion allowing engines to operate at peak performance and maintain optimum fuel efficiency. **Power Mix 500 ULSD** exceeds the requirements set forth by both Cummins and Caterpillar for both cleanliness and anti-wear. It increases the lubricity of ULSD to meet or exceed the specification regarding lubricity in diesel established by the American Society for Testing and Materials (ASTM). This lubricity specification comes under the ASTM D-975 Standard Specification for Diesel Fuel Oils.

COMPOSITION:

Power Mix 500 ULSD is blended from pure mineral base oils and select additives that provide:

Detergency	Corrosion Inhibitor
Lubricity	Demulsifiers
Cetane Improvers	Stabilizers
Burn Improvers	

PERFORMANCE CHARACTERISTICS:

When used consistently **Power Mix 500 ULSD** will provide the following benefits:

- **Increased fuel burn efficiency**
An average of 7.7% decrease in fuel consumption in over the road fleet testing.
8.2% decrease in fuel consumption in off road heavy equipment.
- **Increases power**
Cleans the fuel delivery system and the fuel injector tips and orifices, correct spray patterns are maintained, allowing the fuel to burn more efficiently.
- **Passes and exceeds the Cummins diesel fuel engine tests (L10 and N14)**
These tests are designed to provide fuels that will minimize injector fouling and erosion problems.
- **Provides the needed lubricity not found in ultra low sulfur diesel fuel**
Reduces friction, protects the fuel injector pump and minimizes the effect of metal-to-metal contact and wear in the injectors.
- **Reduces engine emissions and black smoke**
- **Removes and prevents carbon deposits in the combustion chamber**
- **Provides TDC pulse optimization**
- **Provides corrosion protection for the fuel tank, lines, pump and injectors**
- **Provides fuel storage stability and prevents gums, varnishes, sludge and moisture build-up in storage tanks**
- **Increases fuel filter life**
- **Mixes easily with fuel; can be poured directly into vehicle or bulk storage diesel tanks**

Power Mix Fuel Treatments have been used at some sites continuously since their introduction in 1994 and have been placed in over 200,000,000 gallons of fuel.

TEST RESULTS:

OFF ROAD TEST PROGRAM

TEST: 90 days of operation untreated, followed by 90 days treated
RESULTS: Fuel consumption reduced by 8.2%

FLEET TEST PROGRAM

TEST: 135,000 fleet miles over three months untreated followed by 135,000 fleet miles treated
RESULTS: Fuel consumption reduced by 7.7%
Opacity (Black Smoke) reduced an average of 90%

REDUCED EMISSIONS IN LOW SULFUR FUEL:

FUEL INJECTOR CLEAN-UP EVALUATION TRANSIENT TEST RESULTS

HC - Reduced 5.9%
CO - Reduced 17.7%
NOX - Reduced 5.2%
PARTICULATE - Reduced 17.2%

DDC "SCAN TOOL"

Reduced pulse width, injectors returned to "new" condition

CUMMINS L-10 DETERGENCY

CRC Rating
Untreated = 25.9
Treated = 9.8

CUMMINS L-10 DETERGENCY RESPONSE

Average Plunger Rating CRC
Untreated = 12.1
Treated = 4.5

HFRR LUBRICITY TEST:

HFRR Lubricity Test	
Fuel Tested	Result
Wear Scar without Power Mix 500 ULSD Fuel Treatment	580 microns
Wear Scar with Power Mix 500 ULSD Fuel Treatment	440 microns

TYPICAL SPECIFICATIONS:

Viscosity @ 40°C, cSt 8.12
Density, lbs/gal 7.42
Flash Point, TAG CC, °C (°F) 64.4 (148)
Modified Scuffing BOCLE Pass
Lubricity, g. min. Pass
Peugeot XUD-9 IDI coking test Pass
Cummins L-10 for DI Pass
Pour Point °C (°F) -67.8 (-90)

Values shown here are typical, and may vary.

DIRECTIONS:

For best results treatment must be properly metered and blended into fuel.
In diesel fuel storage tanks mix one gallon of **Power Mix 500 ULSD** per 500 gallons of diesel fuel.

CAUTIONS:

Do not use in gasoline

PERFORMANCE PRODUCTS GUARANTEED