

# SSI Friction Reducer ULSD Fuel Additive

*Biobased, Renewable, EPA Approved*

## ULSD Causes Lubricity Problems

Ultra Low Sulfur Diesel (ULSD) was introduced to satisfy Federal regulations for clean air. This regulation reduced the allowable sulfur in diesel fuel by 90% to 15 ppm. Unfortunately lower sulfur also means lower fuel lubricity, the higher sulfur content had provided the fuel's lubricity. Without sufficient fuel lubricity, engine parts could wear prematurely.

## SSI Friction Reducer Brings Back the Lubricity, Naturally with Plant Power

It is well documented<sup>1</sup> that biodiesel improves fuel lubricity of the blended fuel. In fact, tests have shown that biodiesel can increase fuel lubricity at blend levels as low as 1% biodiesel (Figure 1).

SSI Friction Reducer Fuel Additive has even better lubricity than biodiesel! SSI Friction Reducer's ASTM Test results (Figure 1) show that with a concentration level as low as .5%, SSI Friction Reducer will provide 42% better lubrication than B-100 (100% Biodiesel)! And at a 280 micron wear level, SSI Friction Reducer Fuel Additive brings ULSD 39% below the 460 micrometer wear level recommended by the Engine Manufacturers Association.<sup>2</sup>

<sup>1</sup>Paper presented at BioEnergy 94 by University of Missouri reprinted at [www.solvent-systems.com/pdf/LubricatingQualitiesOfBiodiesel.pdf](http://www.solvent-systems.com/pdf/LubricatingQualitiesOfBiodiesel.pdf)

<sup>2</sup>see [www.enginemanufacturers.org](http://www.enginemanufacturers.org) and [www.solvent-systems.com/pdf/EMARecommendedFuelProperties.pdf](http://www.solvent-systems.com/pdf/EMARecommendedFuelProperties.pdf).

Full SSI Friction Reducer ASTM D6079 test results at [www.solvent-systems.com/pdf/SSIFrictionReducerASTM.pdf](http://www.solvent-systems.com/pdf/SSIFrictionReducerASTM.pdf)

## SSI Friction Reducer, the Perfect ULSD Fuel Additive

SSI Friction Reducer's innovative manufacturing process allows it to maximize the lubrication features of its plant oil feedstock. Other SSI Friction Reducer features include:

- ✓ Reduces water contamination which is important because ULSD naturally absorbs water from the air in humid conditions.
- ✓ Formulated for year-round use with superior cold weather performance with a cloud point lower than diesel fuel.
- ✓ Superior oxidative stability that surpasses both diesel and traditional biodiesel. Long term storage will retain color, clarity and aroma.

Contact Steve at 847-437-1100 ext 18 or [srundell@solvent-systems.com](mailto:srundell@solvent-systems.com) for more info.

“ We added 20 ounces of SSI Friction reducer to 26 gallons of fuel in our Sprinter Delivery Van which has over 130,000 miles. After 2 hours the engine sound was greatly reduced, the engine ran and idled smoother and mileage increased 2 MPG! A single fuel fill lasted all week, normally lasting just 4 days. ”

*- Knauz AutoPark Lake Bluff Illinois*

Percent Concentration in ULSD	ASTM D6079	
	SSI Friction Reducer Wear (microns)**	Biodiesel Wear (microns)
.5%	280	481
1%	215	321
2%	203	322

Figure 1



[www.solvent-systems.com](http://www.solvent-systems.com)