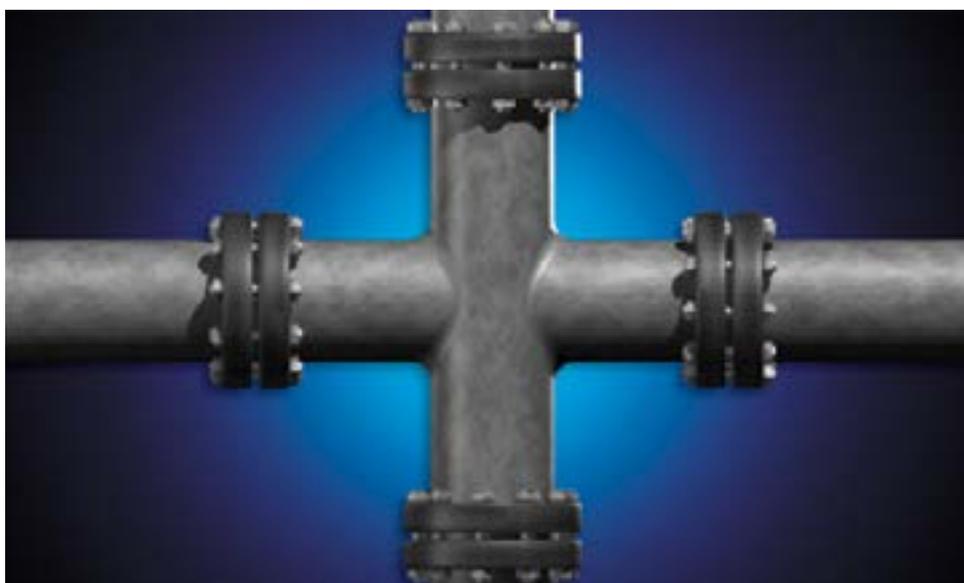


FUELS

HiTEC[®] 4171

Refinery and Distribution Additive



Monoacid Lubricity for Diesel Fuels

HiTEC® 4171 Refinery and Distribution Additive

Monoacid Lubricity for Diesel Fuels

Application

HiTEC® 4171 Lubricity Improver is a highly effective solution for lubricity improvement in diesel fuels. Sulfur levels in diesel fuels have been reduced worldwide to improve vehicle emissions and enable advanced exhaust treatment systems. In reducing sulfur levels the inherent lubricity characteristics of the fuel are also significantly diminished.

The importance of the lubricating properties of the fuel is becoming more important as advanced vehicle designs use increasingly severe conditions to meet efficiency and emission targets. Vehicle manufacturers typically consider the lubricating properties of a diesel fuel with less than 350 ppm sulfur to be unacceptable. The importance of diesel lubricity characteristics are recognized by minimum performance criteria in fuel specifications. For example:

- EN590 specifies a maximum 460 microns wear scar by HFRR
- ASTM D975 specifies a maximum 520 microns wear scar diameter by HFRR.

HiTEC® 4171 restores lubricity characteristics in low sulfur diesel fuel. HiTEC® 4171 is based on mono-acid technology which has been successfully used for millions of vehicles to provide lubricity improvement in low sulfur diesel fuels. Today it is estimated that two-thirds of lubricity additive use is mono-acid based, and market share continues to grow.

Key Performance Benefits

- Increases lubricity of diesel fuel at low treat rates
- Low viscosity allows handling down to -10°C (14°F)
- Compatible with all commonly used diesel additives

Recommended Dosage

Treat rates will vary depending on base fuels. Afton Chemical recommends using HFRR test method CEC F-06-A-96 or similar to determine specific treat rates for your application. Typical treat rates are suggested at 50 to 100 ppmv depending on the fuel response and target performance.

Typical Characteristics

Appearance	Yellow liquid
Density, lbs/gal.	7.48
Specific Gravity @ 15.6°C	0.89
Flash Point, °F (PMCC)	145.4 min.
Viscosity @ 0°C, cSt	31

Handling Information

Recommended Storage & Handling Temp: 10-40°C (50-104°F)

Shelf Life: 24 months when stored as directed

Please see the product Safety Data Sheet for specific handling and safety information.

