



CLEANS INJECTORS & PUMPS

ALL-IN-ONE DIESEL FUEL TREATMENT

PROTECTS FUEL SYSTEM FROM TANK TO TAILPIPE

All-In-One Formula: Diesel Mechanic In A Bottle (DMIB) helps meet or exceed ASTM, Cummins, Peugot and HFRR specifications. Effective in High Pressure Common Rail (HPCR) Injectors and proven effective in ALL diesel fuels and diesel fuel blends.

Complete Fuel System Cleaning: High temperature detergent cleans the entire diesel fuel system, guarding against gum and varnish build up to free up "sticky" injectors, promoting better volumetric efficiency allowing for continuously clean spray patterns.

Maximum Lubricity: Ultra Low Sulfur Diesel (ULSD) blends reduce lubricity. DMIB's advanced ULSD lubricating additive restores lost lubrication, significantly improving the condition of the cylinder liner, piston, and piston ring. Using ASTM D6709, fuel treated with DMIB produced 38% less wear scar vs. untreated fuel (320 vs. 520 micron).

Fuel Stabilization (Antioxidant Package): DMIB controls gum and peroxide formation, stopping the formation of oxidation and asphaltenes. This is the highest standard of protection for any diesel fuel in storage (i.e. generators).

Biodiesel Protection: 100% synthetic advanced biodiesel protection allows a higher % of biodiesel blends.

Anticorrosive Package: DMIB prevents corrosion in fuel tanks and storage tanks above and below the fuel. DMIB protects all metals as tested by ASTM D130 (A-1 rating) and NACE (received an A rating).

Improved Fuel Efficiency: Advanced fuel catalyst allows a more efficient burn and increased BTUs, resulting in improved fuel efficiency, horsepower and less fuel consumption.

Reduces Regenerative Burns: Efficient combustion leads to significant reduction of exhaust smoke during acceleration and gear changing. Particulate filters stay cleaner longer, reducing filter regenerations and increasing EGR valve service life.

Greenhouse Gas & Emission Reduction: Testing showed DMIB improved greenhouse gases & emissions: CO2 -95%, Hydrocarbons -15% (improves power), NOX -60%, O2 +19% (O2 improves engine efficiency).

Pour-Point Depressant: Adding DMIB into No.2 (ULSD) fuel lowered pour-point by -18°F.

Water Protection: DMIB disperses water molecules allowing them to pass harmlessly through the fuel system and burn during combustion. It also prevents bound water in the fuel from settling on the tank bottom, preventing microbial growth and asphaltenes from forming sludge which plugs and damages filters (as tested by ASTM E1064).

Cetane Improvement: DMIB increased cetane ratings by 2 points based on ASTM D976. This assures better cold starting, reduced smoke opacity, faster warm-ups, and improved engine performance.











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THIRD PARTY TEST RESULTS

Oxidation Stability (Storage) (ASTM TEST D2274)

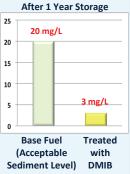
Expected life of diesel fuel is indicated by oxidation stability test ASTM D2274.

This test measures how much gum and sediment will be deposited after keeping the fuel at 95°C in the presence of oxygen for 16 hours (corresponds to approx. 1 Year Storage at 25°C).

A result of less than 20 mg/L of sediment and gum after the test is considered acceptable to normal diesel.

RESULT: Treating with DMIB resulted in 85% less gum and sediment after 1 year of storage.

Sediment and Gum Left



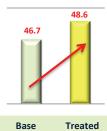
Cetane Number (ASTM TEST D976)

Cetane Number (CN) is a measurement of the combustion quality of diesel fuel during compression ignition.

The higher the CN, the more easily fuel will combust in a compression setting (such as a diesel engine). The characteristic diesel 'knock" occurs when the first portion of fuel that has been injected into the cylinder suddenly ignites after an initial delay. Minimizing this delay results in less unburned fuel in the cylinder at the beginning and less intense knock. Therefore higher-cetane fuel usually causes an engine to run more smoothly and quietly.

RESULT: Cetane improved nearly 2 points by adding DMIB.

Cetane Improvement



Fuel with DMIB

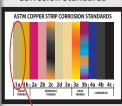
Corrosion Protection (ASTM TEST D130)

Evaluates the degree to which a lubricant will **corrode** coppercontaining materials (i.e. bronze, brass)

- Rates oils by immersing a prepared copper strip in the lubricant at 2 temperatures in typical range of operation.
- •Ratings range from "1a" with slight discoloration, but barely noticeable (similar to a freshly polished strip), to "4c" or severely corroded, blackened and pitted.

RESULT: DMIB received the highest rating of "1a".

ASTM Copper Strip Corrosion Standards



DMIB received a "1a" rating in the ASTM D130 test.

Corrosion Rating (NACE Standards) TEST for ferrous metals

Shows the rating from E (poor: 75 – 100% coated with rust) to A (excellent: 0% rust) of the ability to resist corrosion, per NACE standards.

NACE International is the world's leading professional organization for the corrosion control industry.

RESULT: DMIB has the highest rating for corrosion resistance, vastly improving fuel's corrosion resistance beyond those without DMIB.

Bottom Sample (where rust occurs)



Pour Point (ASTM TEST D6371)

Diesel engine power loss during winter is often traced back to Paraffin crystal formation restricting flow through fuel filters.

Freezing temperatures can also cause emulsified water to form a fuel / ice slush.

Pour Point is the temperature at which the Paraffin in fuel crystallizes to the point where fuel gels and resists flow.

RESULT: Pour Point improved (reduced) by 18°F when DMIB was added to #2 Diesel.

Pour Point Improvement

Lubricity (ASTM TEST D6079)

ASTM D6079 is a measure of **lubricity** in diesel fuel using the High-Frequency Reciprocating Rig (HFRR).

The HFRR may be used to evaluate relative effectiveness of diesel fuels for preventing wear under the prescribed test conditions.

RESULT: Wear scar for Diesel fuel treated with DMIB was 38% less (320 Micron) than the spec of untreated base fuel (520 micron)

> Wear Scar (Microns)



