

405**Power-Master****Premium Diesel Fuel Additive****Description:**

Power-Master™ is a concentrated cetane improver which will tremendously upgrade power and performance in all diesel equipment, increasing fuel and maintenance economy. Stability of fuels will be greatly increased and diesel engines will be kept in a much cleaner, more maintenance-free condition.

Fuel Situation:

In recent years, with the upswing of more worldwide crude oil funneling into our markets, fuel quality has decreased because the quantity of refractive, or “difficult-to-burn”, molecules in our fuel has increased due to higher aromatic content in the crude.

Current refining methods use a catalytic cracking process by which valuable fuels can still be produced from heavier, less desirable fractions of the crude - in other words, going “deeper into the barrel”. This is accomplished by actually cracking a large molecule into smaller molecules at high temperatures. Similar to thermal cracking, which occurs in the deterioration of a lubricant, “cat cracking” thus produces a less desirable fuel with more refractive molecules which resist burning, as opposed to older fuels containing very few refractive molecules (fuel from crude sometimes referred to as “sweet crude”). This, coupled with the high demand for straight-run or “uncracked” jet fuel, leaves today’s diesel equipment operators faced with the problem of running their equipment with fuels of increasingly poorer ignition quality, or in other words, lower cetane.

Composition:

The cetane improver in Power-Master consists of special nitrates which are pro-oxidants and which speed up the oxidative process of fuels during combustion, giving more power and improved mileage. Power-Master provides greatly increases ignition efficiency with all diesel fuels.

In addition, Power-Master will prevent gum and sludge formation. Corrosion is prevented by an inhibitor which produces a protective non-deposit-forming film on metal surfaces in the fuel system and which neutralizes corrosive acids formed during combustion.

An important component of Power-Master is a special emulsifier which disperses condensed moisture. Condensed water in fuels is a major cause of rust, icing in cold weather and the growth of microorganisms in warm weather. Operation of diesel engines is noticeably improved when corrosion and growth of bacteria are prevented.

Power-Master contains an exclusive polar lubricity additive to prevent wear without altering fuel viscosity.

**PRIMROSE OIL COMPANY, INC.**

11444 Denton Drive / P.O. Box 29665 / Dallas, Texas 75229-0665/ 972.241.1100/ 800.275.2772/ Fax: 972.241.4188

Fuel treated with Power-Master is a “premium” diesel fuel. However, It contains no dye whatsoever. This product is designed for jobbers to blend premium diesel by treating fuel which is either not allowed to be dyed or which is already dyed at purchase, both as required by law depending on use.

Performance Characteristics:

The reason for better performance with Power-Master is that cetane improvement in the fuel gives a smoother, less erratic pressure buildup in the combustion chamber during the ignition delay period which occurs between injection and ignition. Controlling this pressure buildup eliminates potential damage to piston rings and rod bearings. Power and fuel economy are increased as fuel burns more evenly and cleanly. Misfiring is controlled. When ignition improves, emissions are reduced and noise levels are lowered. Controlling the pressure build-up allows more complete burning of the refractive molecules in the fuel, which steal power and produce deposits and wear.

In addition, cetane improvement gives quicker starts and faster warm-ups at cold temperatures. Power-Master will lower the minimum starting temperature of a diesel engine approximately 5° F. The point at which misfiring occurs in a diesel engine is influenced by the temperature of the intake air. Power-Master will lower the temperature at which misfiring occurs by as much as 30° F.

Uses:

Power-Master is extremely effective in middle distillate fuels to improve combustion and ignition efficiency, enhance fuel economy and maintain fuel in a clean, stabilized condition. The sulfur content of this diesel fuel additive does not exceed 15 ppm. This diesel fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and nonroad engines.

Applications:

Power-Master can be used in all diesel engines because it is completely ashless and has no adverse effects on engine components. It can also be used in fuel oil for more efficient fuel utilization and a more trouble-free furnace operation without producing any harmful emissions.

Treatment

Rates:

One gallon of Power-Master to 2,000 gallons of diesel fuel gives increased cetane performance of 3 to 4 numbers.

CAUTION:

Power-Master is formulated for diesel fuel only. The cetane improver contained in this product acts as an octane destroyer in gasoline.

Typical

Specifications:

Density (#/gal)	7.2 - 7.6
Flash Point, °F.	142
Pour Point, °F.	-60
Copper Corrosion Test	Pass
Ash Content	None