

Superlube TMS[®]

CJ-4/SM Diesel Engine Oil

General Description

Superlube TMS contains a formulation engineered for 2007 model year and newer diesel engines with advance emission control systems. These systems use exhaust gas recirculation, diesel particulate filters and SCR catalyst that are all sensitive to the wrong oil. The high TBN, outstanding TBN retention, and Wear Saver Technology™ give Superlube TMS “Reserve Quality” that provides excellent engine protection in the most severe service conditions for both new and older diesel engines.

Superlube TMS engine oil contains proprietary additive chemistry with select base oils and a unique VI improver that has been proven in many engine types and extensive field service.

Superlube TMS has been proven to protect diesel particle filter (DPF) emission systems by minimizing ash build up. In addition it provides, improved engine protection from soot, deposits, varnish, wear, acid accumulation, TBN retention, viscosity shear loss, and oil consumption.

Expect excellent performance in:

- Four-stroke naturally aspirated and turbocharged diesel engines.
- 2007 and newer low emission engines with exhaust after treatments devices.
- Pre-2007 engines specifying older API or OEM oil performance categories.
- Using ultra low or low sulfur diesel fuel.
- OEM listed by Volvo, Mack, Detroit Diesel, and Cummins.

Features and Benefits

Oil Durability: Hydro-cracked base oils provide additional oxidation control and reduced sulfur. This translates to longer oil life at higher operating temperatures.

Emission and Catalyst Protection: The technology was specifically designed to protect catalyst, particulate filters, and other emission components providing less engine down time.

TBN Control: A high Total Base Number (TBN) and excellent TBN retention means that more combustion contaminants (deposits, soot, acids) can be neutralized during the course of a drain interval.

Exceptional Soot Control: Superlube TMS has demonstrated outstanding soot control that exceeds the requirements of both new and older engines. Controlling and dispersing soot is critical for reducing engine wear and extending engine life.

Deposit and Consumption Control: Engine and field testing confirms the excellent reduction of deposits and oil consumption leading to longer engine life, emission, and (DPF) system life.

Reserve Protection: Superlube TMS features the added security of Wear Saver Technology™ with extra reserve built into the oil. This reserve capacity suspends additional soot, neutralizes additional acids and reduces wear for longer engine life.

Extended Drain: Superlube TMS is capable for extended drain service with new and older engines using today’s fuels. This should be determined with Lubescan™ used oil analysis program.

PDS 145-10

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Typical Application

Superlube TMS is designed to meet or exceed the performance requirements of API and OEM service categories:

Cummins 20081, 20071, 20072*, 20076*, 20077*, 20078, Caterpillar ECF-3/1, Detroit Diesel 93K218/15/14, 7SE270, Mack EO-O Premium Plus, EO-N Premium Plus, EO-M, Volvo VDS-4/3/2 Mercedes Benz 228.3*, Global DHD-1*, ACEA E7-04*, JASO DH-2, MIL-L-2104E/F, Allison C-4/3*.

*SAE 15W-40 Viscosity Grade

Typical Customer

Operators of heavy-duty diesel engines:

- Agricultural diesel engines operating in severe conditions.
- Truck fleets with new low emission compliant engines or older engines.
- Construction diesel engines operating under heavily loaded conditions.
- Diesel passenger cars and light trucks.
- Diesel stationary engines, irrigation, and standby generators.

Total Protection Plan™ Warranty

Superlube TMS is backed by the Total Protection Plan Warranty program for up to 9 years/9,000 hours (10 years/10,000 hours when used in combination with Ruby Fieldmaster[®] premium diesel fuel) on agricultural equipment. See the Warranty program for complete details.

HEALTH & SAFETY:

A complete material safety data sheet is available upon request. Used motor oil contains combustion by-products, which may be harmful. Avoid prolonged or repeated skin contact. Wash clothing and exposed areas with soap and water. Don't pollute - return used oil to a collection center.

Typical Properties

SAE Viscosity Grade	15W-40	10W-30
API Service	CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, CF-4, CF/SM	CJ-4, CI-4, CH-4, CG-4, CF/SM
API Gravity/Density lbs/gal	30.2/7.28	31.4/7.23
Viscosity, cSt @ 40°C	119.8	77.6
Viscosity, cSt @ 100°C	15.3	11.7
Viscosity Index	135	144
Pour Point, °F (°C)	-29 (-34)	-42 (-41)
MRV-TP1, Viscosity, cP @ °C	26,000@ -25	22,000@ -30
CCS Viscosity, cP @ °C,	6,300 @ -20	6,200 @ -25
Sulfated Ash, % wt.	0.99	0.99
TBN	10	10

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.