

## Fleet Supreme EC® Engine Oil

Fleet Supreme EC (Emission Compatible) is an API CJ-4 universal fleet engine oil developed for use in four-stroke cycle diesel engines designed to meet 2007 on-highway exhaust emission standards. It is specially formulated to protect exhaust aftertreatment devices such as diesel particulate filters (DPFs) and diesel oxidation catalysts (DOCs). It also is backward serviceable for use in pre-2007 diesel engines where API CI-4 PLUS, CI-4, CH-4 or CG-4 oils are specified.

Fleet Supreme EC is designed for use in mixed fleets with both on-highway and off-road equipment operating in varying climates and under varying loads and service conditions. It has excellent soot dispersancy to protect against soot-induced oil thickening and abrasive wear, and excellent oxidation resistance to help minimize deposit formation. The low-ash formulation is designed for compatibility with all exhaust emission control systems in modern diesel engines, and to help prolong DPF life.

Fleet Supreme EC meets or exceeds the requirements of API Service Categories CJ-4, CI-4, CH-4, CG-4 and SM. It is approved under the latest OEM specifications from Caterpillar, Cummins, Detroit Diesel, Mack, Mercedes and Volvo for use in their 2007 low-emissions engines. It is formulated for use in diesel engines operating on diesel fuels with sulfur content up to 500 ppm. However, for applications not using Ultra-Low Sulfur Diesel (ULSD), consult the engine manufacturer for recommended service interval.

## **Applications**

- On-highway diesel trucks equipped with exhaust aftertreatment devices, such as diesel particulate filters and oxidation catalysts
- Diesel engines equipped with EGR, ACERT or other emissions control technologies
- Older diesel equipment with conventional, non-EGR engines
- · Off-highway construction, earth moving and mining equipment
- · Mixed fleets with diesel and gasoline-fueled vehicles

Fleet Supreme EC meets or exceeds the requirements of:

- API Service CJ-4, Cl-4, CH-4, CG-4, SM
- API CI-4 PLUS (SAE 15W-40)
- ACEA E7-04, E5-02, E3-96 (SAE 15W-40)
- Caterpillar ECF-3, ECF-2, ECF-1a

API CJ-4 Diesel Engine Oil For Low-Emission Engines

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- Cummins CES 20081
- Detroit Diesel Power Guard 93K218 (SAE 15W-40), Power Guard 93K214 (SAE 15W-40), 7SE270 (4-stroke cycle engines)
- International (Navistar) diesel engines
- Mack EO-O Premium Plus (SAE 15W-40), EO-M Plus (both grades)
- Mercedes-Benz Sheet 228.31 (SAE 15W-40)
- MTU MTL 5044 Type 2.1 (SAE 15W-40)
- Volvo VDS-4, VDS-3, VDS-2 (SAE 15W-40)

## Features/Benefits

- Excellent protection for new 2007 emissions-compliant engines and older diesel engines
- Specially formulated to protect exhaust aftertreatment devices
- Protects against particulate filter plugging
- Excellent soot control for protection against abrasive wear and soot-induced oil thickening
- Excellent resistance to viscosity and thermal breakdown at high temperatures
- · Protects against sludge and varnish formation
- Protects against wear
- · Protects against rust and bearing corrosion
- · Good resistance to foaming and aeration

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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Fleet Supreme EC® Engine Oil

Typical Properties		
SAE Grade	10W-30	15W-40
Specific Gravity @ 60°F	0.872	0.880
Density, Ibs/gal @ 60°F	7.26	7.33
Color, ASTM D1500	4.0	4.0
Flash Point (COC), °C (°F)	227 (441)	227 (441)
Pour Point, °C (°F)	-45 (-49)	-38 (-36)
Viscosity, Kinematic	11595774-36	
cSt @ 40°C	80.0	114
cSt @ 100°C	12.0	15.2
Viscosity Index	146	137
Cold Cranking Viscosity, cP	6,200	6,500
@ (°C)	(-25)	(-20)
High-Temp/High-Shear Viscosity, cP @ 150°C	3.6	4.3
Sulfated Ash, ASTM D874, wt %	0.97	0.97
Total Base Number (TBN), ASTM D2896	8.4	8.4
Zinc. wt %	0.121	0.121

## Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <a href="http://w3.conocophillips.com/NetMSDS">http://w3.conocophillips.com/NetMSDS</a>.

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