LUBRICANTS

Fleet Supreme EC® Diesel Engine Oil

API CK-4 Diesel Engine Oil for Low-Emission Engines

Phillips 66®Fleet Supreme EC (Emission Compatible) Diesel Engine Oil is an API CK-4 engine oil developed for use in four-stroke cycle diesel engines designed to meet 2007 and later EPA on-highway exhaust emissions standards. It is specially formulated for compatibility with exhaust aftertreatment systems using diesel particulate filters (DPFs), diesel oxidation catalysts (DOCs) and/or selective catalytic reduction (SCR). It is backward serviceable for use in pre-2007 diesel engines.

Fleet Supreme EC Diesel Engine Oil 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 protects exhaust catalysts on low-emission engines and helps prolong DPF life.

Fleet Supreme EC Diesel Engine Oil meets or exceeds the performance requirements of API Service Category CK-4 and is approved under the latest OEM specifications for use in low-emission diesel engines. It is backward serviceable for use where earlier API “C” category engine oils, or the concurrent earlier OEM specifications, are specified. 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 EGR and exhaust aftertreatment systems to meet 2007/2010 emissions standards
- Older diesel equipment with conventional, non-EGR engines or ACERT engines
- Off-highway construction, earth moving and mining equipment

Fleet Supreme EC Diesel Engine Oil is licensed or OEM-certified for:

- API Service CK-4, CJ-4, CI-4 PLUS, SN (SAE 15W-40 only)
- Cummins CES 20086
- Detroit Diesel DFS 93K222
- Mack EOS 4.5
- Mercedes-Benz Sheet 228.31 (SAE 15W-40)
- MTU MTL 5044 Type 2.1 (SAE 15W-40)
- Renault VI RLD-4
- Volvo VDS-4.5

KEEPING THE WORLD RUNNING SMOOTHLY.

Fleet Supreme EC Diesel Engine Oil meets or exceeds the requirements of:

- ACEA E9
- Caterpillar ECF-3, ECF-2, ECF-1-a
- Chrysler MS-10902 (SAE 15W-40)
- Ford WSS-M2C171-F
- Diesel engines manufactured by OEMs not listed above, where the OEM specifies API CK-4 engine oil

Features/Benefits

- Excellent protection for newer low-emission diesel engines and older diesel engines
- Specially formulated to protect exhaust aftertreatment systems
- 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 rust, bearing corrosion and wear
- Good resistance to foaming and aeration

Fleet Supreme EC® Diesel Engine Oil

Typical Properties		
SAE Grade	**10W-30**	**15W-40**
Specific Gravity @ 60°F	0.871	0.879
Density, lbs/gal @ 60°F	7.26	7.32
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		
cSt @ 40°C	82.0	117
cSt @ 100°C	12.0	15.2
Viscosity Index	143	135
Cold Cranking Viscosity, cP @ (°C)	6000 (-25)	5800(-20)
High-Temp/High-Shear Viscosity, cP @ 150°C	3.6	4.3
Sulfated Ash, ASTM D874, wt %	1.00	1.00
Total Base Number (TBN), ASTM D2896	9.7	9.7
Zinc, wt %	0.125	0.125
Phosphorus wt%	0.1116	0.1116

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via http://www.phillips66.com/EN/products/Pages/MSDS.aspx.

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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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