

TECHNICAL DATA SHEETS

Chemoil Heavy Duty Diesel Engine Oil 15W-40

Chemoil Heavy Duty Diesel Engine Oil is a top-tier lubricant formulated exclusively with premium Group II base stocks to exceed the requirements of 2007 or later low-emission engines equipped with diesel particulate filters (DPF) and the performance standards required by all global diesel engine OEMs. It provides exemplary performance when utilized in CI engines using ultra-low sulfur (ULSD) diesel and low-sulfur EPA diesel fuels.

Chemoil Heavy Duty Diesel Engine Oil is formulated with CleanGuard™ technology, an advanced additive system that contains active cleaning agents. CleanGuard provides superior soot control and a proprietary detergent system that delivers ongoing engine cleanliness, extending the life and optimizing service intervals of diesel particulate filters (DPF) and exhaust gas recirculation (EGR) systems.

DIESEL ENGINE BENEFITS

- Superior wear protection to protect critical engine components
- Maintains excellent soot control
- Optimum DPF service life and operation
- Protects pistons from carbon deposits to ensure clean ring lands & grooves. Makes extended drain and engine life possible
- Available in lower, fuel saving viscosities including 10w/30.

PRODUCT FEATURES

- Technology proven in Cat 3500 & MTU 2000/4000 and virtually all diesel engines utilized in the oilfield today.
- CleanGuard technology maintains engine cleanliness and extends the service life of DPF systems
- Advanced dispersants keep soot in suspension and reduces soot-thickening in extended intervals
- Balanced additive technology with a robust TBN formulation to neutralize acidic engine conditions for optimum performance in extended intervals

APPLICATIONS

- Chemoil Heavy Duty Diesel Engine Oil is recommended for the following heavy-duty engine oil requirements:
- Exceeds API Service Categories CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, (gasoline engines) SN, SM, SL, SJ
- Exceeds ACEA E7-08, E9-08 performance standards
- Meets or Exceeds Engine Manufacturer Performance Requirements: Caterpillar ECF-1a, ECF-2, ECF-3; Cummins CES 20081, 20077, 20076; Detroit Diesel 93K218; Mack EO-O Premium Plus, EO-N, EO-M Plus, EO-M, EO-L Plus, EO-L; Mercedes Benz 228.31; Chrysler MS-10902; Ford WSS-M2C171-E; Deutz DQC III-10LA; Volvo VDS-3, VDS-4; MAN 3575; JASO DH-2; MTU 2-1, Renault RLD-3; Global DHD-1

Chemoil Heavy Duty Diesel Engine Oil

Minor variations in typical physical properties may occur from normal manufacturing processes

Property	Test Method	15W-40
API Service		CJ-4 / SN
Density@1 5°C, glee 3	ASTM D4052	0.876
Viscosity @ 40°C, cSt	ASTM D445	111.5
Viscosity @ 100°C, cSt	ASTM D445	14.8
Viscosity Index	ASTM D2270	137
Flash Point, °C (°F)	ASTM D93	208 (406)
Pour Point, °C (°F)	ASTM D97	-39 (-39)

Property	Test Method	15W-40
CCS, cP, max	ASTM D5293	5559 @ -20
MRV, cP, max	ASTM D4683	21100 @ -25
HTHSV, @150°C, mPa.S	ASTM D4683	4.2
TBN, mg KOH	ASTM D2896	10
Volatility @ 700°F, %loss	ASTM D5800	11.5
Zinc wt%	ASTM D4951	0.128