



The First in Synthetics®

**3X
OEM Drain
Interval**



Premium API CJ-4 Synthetic 5W-40 Diesel Oil

Maximum Fuel Economy and Extended Drain Intervals in Ultra-Low Emission Diesel Engines

PRODUCT DESCRIPTION

AMSOIL Synthetic 5W-40 Diesel Oil (DEO) is the premium choice for API CJ-4 emission-quality diesel oil required by model-year 2007 and newer diesel engines. It delivers extraordinary lubrication in diesel engines found in commercial, fleet and personal vehicles. Built with the latest additive and synthetic base oil technology, AMSOIL Premium Synthetic 5W-40 Diesel Oil exceeds the higher performance demands of modern engines. It withstands the stress of heat, soot and acids to help prevent deposits, wear and corrosion. AMSOIL Synthetic 5W-40 is wax-free with a broad viscosity range to provide exceptional cold-weather starting and high-temperature protection. It resists breakdown and offers maximum fuel efficiency over extended drain intervals.

AMSOIL, the leader in automotive synthetic lubrication, produced the world's first API-qualified synthetic motor oil in 1972. Trust the extensive experience of AMSOIL, *The First in Synthetics*®, to do the best job protecting your engine.

Exceeds Emission System Requirements

AMSOIL Synthetic 5W-40 Diesel Oil is a low-sulfated ash formulation that exceeds the requirements for low-emission quality diesel oil. It is compatible with all exhaust treatment devices and is designed to extend the service life of diesel particulate filters (DPF).

Extended Drain Performance

AMSOIL Premium 5W-40 Diesel Oil can extend drain intervals far beyond those recommended for conventional petroleum oils. Its unique synthetic formulation

and long-drain additive system (10.4 TBN) deliver superior engine protection, cleanliness and performance over extended drain intervals. AMSOIL Synthetic 5W-40 Diesel Oil provides maximum protection for up to 3X the OEM-recommended drain interval and even further with oil analysis.

Improves Fuel Economy

The advanced synthetic technology used to engineer AMSOIL Premium 5W-40 Diesel Oil enhances viscosity properties and is proven to deliver better fuel economy. In fact, the Environmental Protection Agency's (EPA) Federal Test Procedure confirms that AMSOIL 5W-40 Diesel Oil provides up to 3 percent better fuel economy than conventional 15W-40 diesel oils. At a mix of 55 percent city/45 percent highway driving, the average improvement is 1.6 percent and at straight highway driving the average improvement is 1.25 percent.

AMSOIL Premium 5W-40 Diesel Oil costs less per mile than conventional oil.*

Fleet Savings vs. conventional 15W-40	1 Truck	50 Trucks
Fuel Economy Savings (1.6%)	\$945	\$47,250
Extended Drain Savings	\$210	\$10,500
Total Savings with AMSOIL	\$1,155	\$57,750

*Based on 120,000 miles per year with an OEM-recommended drain interval of 10,000 miles. Avg. 6 mpg, 32-qt. oil sump, \$3/gal. fuel, \$34.10/gal. AMSOIL (Retail), \$13.55/gal. conventional diesel oil. Does not include labor, filter or used oil disposal costs, making AMSOIL even more cost effective. Pricing samples taken April 2009.

Reduces Oil Consumption and Emissions

AMSOIL Synthetic 5W-40 Diesel Oil has lower volatility (burn-off) than conventional petroleum oils. Because less oil vapor passes into the combustion chamber, oil consumption and emissions are reduced. Lower volatility helps AMSOIL Premium Diesel Oil retain its viscosity after high-temperature service for dependable protection and excellent fuel economy.

Controls Soot-Thickening and Wear

The advanced synthetic base oils in AMSOIL 5W-40 Diesel Oil are naturally resistant to soot contamination. That, along with a heavy fortification of detergent/dispersant additives, keeps soot particles suspended independently, helping prevent the formation of larger wear-causing particles. Viscosity increase is minimized and soot-related wear is controlled.



TYPICAL TECHNICAL PROPERTIES

AMSOIL Premium API CJ-4 Synthetic 5W-40 Diesel Oil (DEO)

Kinematic Viscosity @ 100°C, cSt (ASTM D-445)	14.6
Kinematic Viscosity @ 40°C, cSt (ASTM D-445)	87.1
Viscosity Index (ASTM D-2270)	175
CCS Viscosity @ -30°C, cP (ASTM D-5293)	6075
Flash Point, °C (°F) (ASTM D-92)	232 (450)
Fire Point, °C (°F) (ASTM D-92)	246 (475)
Pour Point °C (°F) (ASTM D-97)	-46 (-51)
NOACK Volatility, % weight loss (g/100g) (ASTM D-5800)	9.7
Four-Ball Wear Test @ 40 kg, 75°C, 1200 rpm, 1 hr, Scar, mm (ASTM D-4172)	0.45
Total Base Number	10.4
High-Temperature/High-Shear Viscosity, cP (ASTM D-5481)	4.0
Sulfated Ash Content, wt. %	1.0

APPLICATIONS

AMSOIL Premium CJ-4 Synthetic 5W-40 Diesel Oil is recommended for diesel engines and, where appropriate, gasoline engines requiring any of the following specifications:

- SAE 5W-40 • API CJ-4, CI-4+, CF, SM
- ACEA E7, E9 • Mack EO-O Premium Plus
- DDC Power Guard 93K218
- Caterpillar ECF-3, ECF-2 • Cummins 20081
- Volvo VDS-4 • MB 228.31 • MTU Type I & II
- MAN 3275 • JASO DH-2 • Global DHD-1
- Renault RLD-3

COMPATIBILITY

AMSOIL Synthetic 5W-40 Diesel Oil is compatible with conventional and synthetic motor oils. Mixing AMSOIL motor oils with other oils, however, will shorten the oil life expectancy and reduce the performance benefits. AMSOIL does not support extended drain intervals where oils have been mixed.

Aftermarket oil additives are not recommended for use with AMSOIL motor oils.

SERVICE LIFE

AMSOIL Premium API CJ-4 Synthetic 5W-40 Diesel Oil is recommended for extended drain intervals in engines that are unmodified and in good operating condition.

Diesel Engine Service

- Three times (3X) OEM* recommendation, not to exceed 50,000 miles/600 hours or one year, whichever comes first. Drain intervals may be extended further with oil analysis.
- 2007-2009 Caterpillar C13 and C15 on-highway engines must follow OEM-recommended drain interval.
- 2007-2010 Dodge 6.7L, Ford 6.4L and GM 6.6L LMM light-duty diesel pickups must follow OEM-recommended drain interval. Drain intervals may be extended with oil analysis.

Gasoline Engine Service

- Two times (2X) OEM* recommendation, not to exceed 15,000 miles or one year, whichever comes first.

*Operating conditions and drain intervals for severe and normal service are defined by the OEM. Refer to your owner's manual.

Note: Extended drain intervals are not recommended when using biofuels containing >10% ethanol or 5% biodiesel (B5). Follow OEM drain intervals or extend drain intervals with oil analysis.

HEALTH & SAFETY

This product is not expected to cause health concerns when used for the intended application and according to the recommendations in the Material Safety Data Sheet (MSDS). An MSDS is available via the Internet at www.amsoil.com or upon request at (715) 392-7101.

Keep Out of Reach of Children. Don't pollute. Return used oil to collection centers.

For AMSOIL warranty information visit www.amsoil.com.

AMSOIL products and Dealership information are available from your local AMSOIL Dealer.

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