



The First in Synthetics®

DATA BULLETIN

Heavy-Duty Synthetic Diesel Oil

Formulated for Exceptional Diesel Engine Protection

AMSOIL Heavy-Duty Synthetic Diesel Oil is formulated for hard-working equipment. It is engineered to provide 4X better wear protection than required by the Detroit Diesel DD13 Scuffing Test for Specification DFS 93K222, giving you the edge to keep trucks and equipment operating at peak performance. Heavy-Duty Synthetic Diesel Oil offers outstanding value and provides excellent protection for customers seeking an upgrade over conventional, synthetic-blend or competing synthetic diesel oils.



Heavy-Duty Engine Protection

Wear on rings and cylinder liners leads to increased oil consumption and loss of compression, resulting in reduced horsepower and fuel economy. Independent testing shows AMSOIL Heavy-Duty Synthetic Diesel Oil delivers 4X more wear protection than required by the Detroit Diesel DD13 Scuffing Test for Specification DFS 93K222 to help maximize equipment life and reduce maintenance costs and downtime.

Viscosity Control

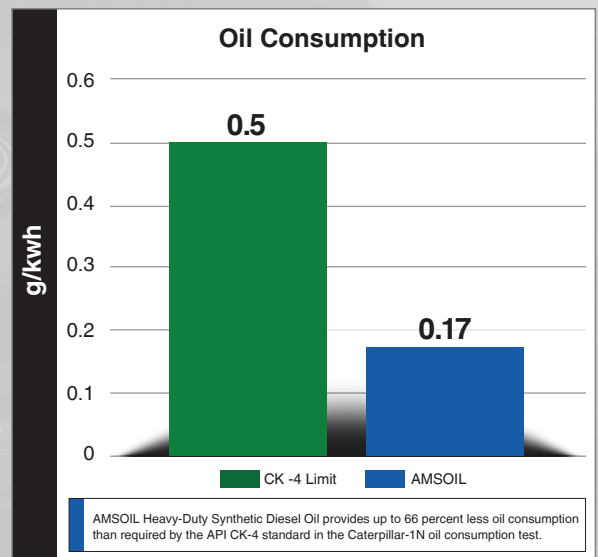
Formulated with advanced synthetic base oils and detergent/dispersant additives, AMSOIL Heavy-Duty Synthetic Diesel Oil minimizes viscosity change while keeping soot particles suspended independently, helping prevent the formation of larger, wear-causing particles. Lower volatility also helps Heavy-Duty Synthetic Diesel Oil retain its viscosity after high-temperature service for added engine protection and increased fuel economy.

Excels in Extreme Temperatures

AMSOIL Heavy-Duty Synthetic Diesel Oil is formulated to deliver improved heat and oxidation resistance compared to conventional diesel oils. It provides clean engine operation and helps maintain power and fuel efficiency for superior engine performance. AMSOIL Heavy-Duty Synthetic Diesel Oil also flows dependably in cold temperatures for easier startup and improved engine protection.

Minimizes Oil Consumption

AMSOIL Heavy-Duty Synthetic Diesel Oil has a low rate of volatility (burn-off), reducing oil consumption during operation and passing less oil vapor into the combustion chamber. It provides up to 66 percent less oil consumption than required by the API CK-4 standard in the Caterpillar-1N oil consumption test.



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TYPICAL TECHNICAL PROPERTIES

AMSOIL Heavy-Duty Synthetic Diesel Oil

	10W-30 (ADN)	5W-40 (ADO)	15W-40 (ADP)
Kinematic Viscosity @ 100°C, cSt (ASTM D445)	12.0	15.2	15.5
Kinematic Viscosity @ 40°C, cSt (ASTM D445)	79.3	90.2	112.7
Viscosity Index (ASTM D2270)	147	178	144
CCS Viscosity @ °C, cP (ASTM D5293)	5591 (-25)	5581 (-30)	4932 (-20)
Pour Point, °C (°F) (ASTM D97)	-38 (-36)	-42 (-44)	-38 (-36)
NOACK Volatility, % weight loss (g/100g) (ASTM D5800)	4.5	9.2	3.6
Total Base Number (ASTM D2896)	10.2	10.2	10.2
High-Temperature/High-Shear Viscosity, cP (ASTM D5481)	3.6	4.2	4.7
Sulfated Ash Content, wt. %	1.0	1.0	1.0

APPLICATIONS

Use in diesel engines and, where appropriate, gasoline engines requiring any of the following specifications:

	10W-30 (ADN)	5W-40 (ADO)	15W-40 (ADP)
API CK-4, CJ-4, CI-4+, CF	X	X	X
API CK-4/SN		X	X
Volvo VDS4.5, VDS4, VDS3	X	X	X
Mack EOS-4.5, EO-O	X	X	X
Renault RLD-4, RLD-3	X	X	X
Cummins CES20086, CES20081	X	X	X
Caterpillar ECF-2, ECF-3, ECF-1-a	X	X	X
DDC 93K218, 93K215, 93K214	X	X	X
DFS 93K222	X	X	X
ACEA E9, E7	X	X	X
MB 228.31	X	X	X
MAN 3575	X	X	X
MTU Type 2.1, II, I	X	X	X
JASO DH-2	X	X	X
Deutz DQC III-10LA	X	X	X
Chrysler MS 10902		X	X
Ford WSS-M2C171-F1	X	X	X

COMPATIBILITY

AMSOIL Heavy-Duty Synthetic Diesel Oil is compatible with other conventional and synthetic engine oils. Mixing AMSOIL diesel oils with other oils, however, will reduce the performance benefits.

Aftermarket oil additives are **not recommended** for use with AMSOIL synthetic diesel oils.

SERVICE LIFE

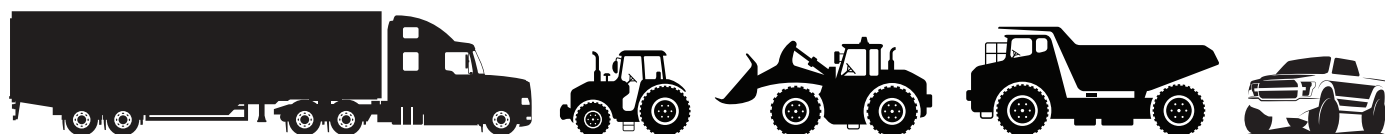
AMSOIL Heavy-Duty Synthetic Diesel Oil is recommended for the drain intervals stated by the original equipment manufacturer (OEM). Refer to the owner's manual for the specific oil change interval. Intervals may be extended beyond the OEM-recommended interval with oil analysis.

HEALTH & SAFETY

This product is not expected to cause health concerns when used for the intended application and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available online at www.amsoil.com or upon request at (715) 392-7101. **Keep Out of Reach of Children.** Recycle used oil and bottle.

AMSOIL PRODUCT WARRANTY

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit www.amsoil.com/warranty.aspx.



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