



LUBRICANTS

Guardol Euro™ Full Synthetic Diesel Engine Oil

Phillips 66® Guardol Euro Full Synthetic Diesel Engine Oil is a premium quality, full-synthetic engine oil developed for use in 4-stroke cycle diesel engines operating under extreme temperature conditions. It meets API CK-4 performance requirements for use in modern low-emission engines designed to meet 2007 and later EPA on-highway exhaust emissions standards, and is backward serviceable for use in older diesel engines. It is specially formulated for compatibility with exhaust aftertreatment systems using diesel particulate filters (DPF), diesel oxidation catalysts (DOC) and/or selective catalytic reduction (SCR). The full-synthetic formulation provides excellent low-temperature properties for better performance in harsh winter climates.

Guardol Euro is formulated with synthetic base stocks and an advanced low-SAPS additive package to provide outstanding wear protection, soot control and bearing corrosion protection in both conventional and EGR-equipped diesel engines. It has excellent soot dispersancy to protect against abrasive wear and soot-induced oil thickening, and to ensure good low-temperature pumpability even with highly soot-laden oil. The full-synthetic formulation provides enhanced oxidation resistance and thermal stability at high temperatures and improved low-temperature properties compared with a conventional, non-synthetic formulation.

Guardol Euro meets or exceeds the performance requirements of API Service Categories CK-4 and SN, 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- and off- highway diesel equipment operating at low ambient temperatures
- 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
- Mixed fleets with diesel and gasoline-fueled vehicles

Guardol Euro Diesel Engine Oil meets requirements of:

- API Service CK-4, SN
- Cummins CES 20086 (5W-30)
- Detroit Diesel DFS 93K222 (5W-30)
- Deutz DQC IV-10
- Mack EOS 4.5, Volvo VDS 4.5 (5W-30)
- Mercedes-Benz Sheet 228.51

**Premium Full
Synthetic API
CK-4 Diesel
Engine Oil**

KEEPING THE
WORLD
RUNNING
SMOOTHLY. 



- Renault VI RLD-4 (5W-30)
- ACEA E6
- Caterpillar ECF-3, ECF-2, ECF-1-a
- Scania Low Ash (10W-40)

Features/Benefits

- Excellent protection for newer low-emission diesel engines and older diesel engines
- Specially formulated to protect exhaust aftertreatment systems
- Outstanding soot control for protection against abrasive wear and soot-induced oil thickening
- Outstanding resistance to viscosity and thermal breakdown at high temperatures
- Protects against sludge and varnish formation
- Protects against rust, bearing corrosion and wear
- Excellent low-temperature pumpability for easier starting and less wear during cold starts
- High shear stability
- High resistance to foaming and aeration

Guardol Euro™ Full Synthetic Diesel Engine Oil

Typical Properties		
SAE Grade	5W-30	10W-40
Specific Gravity @ 60°F	0.8540	0.8560
Density, lbs/gal @ 60°F	7.11	7.14
Color, ASTM D1500	3.4	3.8
Flash Point (COC), °C (°F)	220(428)	230(446)
Pour Point, °C (°F)	-45(-48)	-41(-42)
Viscosity, Kinematic		
cSt @ 40°C	73	97
cSt @ 100°C	12.0	14.8
Viscosity Index	155	159
Cold Cranking Viscosity, cP @ (°C)	5780 (-30)	5390 (-25)
High-Temp/High-Shear Viscosity, cP @ 150°C	3.6	4.1
Sulfated Ash, ASTM D874, wt %	.95	.91
Total Base Number (TBN), ASTM D2896	10.1	10.3
Zinc, wt %	.0823	.0850

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/SDS>.

2/24/2021