



LUBRICANTS

## Guardol FE® Full Synthetic Diesel Engine Oil

Phillips 66® Guardol FE (Fuel Economy) Full Synthetic Diesel Engine Oil is a premium quality, API FA-4 engine oil developed for fuel economy benefits in 2017 and newer engines where FA-4 is specified.

Guardol FE is formulated with the highest quality synthetic base stocks and a proprietary low-SAPS additive package to provide outstanding engine protection in diesel engines specifying FA-4. This additive enhancement provides increased engine protection of critical engine parts, despite lower HTHS requirements of FA-4.

Guardol FE 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. It provides excellent bearing corrosion protection and protects against sludge and varnish formation. The synthetic formulation provides enhanced thermal stability at high temperatures and improved low-temperature properties compared with conventional diesel engine oils.

Guardol FE meets or exceeds the performance requirements of API Service Category FA-4, SN and is approved under the latest OEM specifications for use in low-emission diesel engines. It is formulated for use in diesel engines operating on diesel fuels with sulfur content up to 500 ppm.

### Applications

- On-highway diesel trucks recommending FA-4 to meet 2017 emissions standards
- Mixed fleets with diesel and gasoline fueled vehicles

Guardol FE is licensed or OEM-certified for:

- API Service FA-4, SN
- Cummins CES 20087
- Detroit Diesel DFS 93K223

**Premium Full Synthetic API FA-4 Diesel Engine Oil; Formulated for Fuel Economy**

KEEPING THE  
WORLD  
RUNNING  
SMOOTHLY. 



## Features/Benefits

- Excellent protection for newer low-emission 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 and bearing corrosion
- Excellent low-temperature pumpability with soot-laden oil
- High shear stability
- Good resistance to foaming and aeration

## Guardol FE® 5W-30 Diesel Engine Oil

Typical Properties	
<b>SAE Grade</b>	<b>5W-30</b>
Specific Gravity @ 60°F	0.8540
Density, lbs/gal @ 60°F	7.11
Color, ASTM D1500	3.4
Flash Point (COC), °C (°F)	226 (439)
Pour Point, °C (°F)	-45 (-49)
Viscosity, Kinematic	
cSt @ 40°C	57
cSt @ 100°C	9.9
Viscosity Index	155
Cold Cranking Viscosity, cP @ (°C)	5060 (-30)
High-Temp/High-Shear Viscosity, cP @ 150°C	3.0
Sulfated Ash, ASTM D874, wt %	.95
Total Base Number (TBN), ASTM D2896	10.1
Zinc, wt %	0.0823

## 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