



## Guardol ECT™ Motor Oil

Guardol ECT (Emission Compatible Technology) is a premium quality, synthetic blend, API CJ-4 engine oil developed for use in four-stroke cycle diesel engines designed to meet 2007 on-highway exhaust emission standards. It is specially formulated with advanced low SAPS (Sulfated Ash, Phosphorus and Sulfur) additive technology to protect exhaust aftertreatment devices such as diesel particulate filters (DPFs) and diesel oxidation catalysts (DOCs). It also is backward serviceable for use in pre-2007 diesel engines where API CI-4 PLUS, CI-4, CH-4, CG-4 or CF-4 oils are specified.

Guardol ECT is manufactured with a blend of synthetic and high-quality Group II base stocks and a proprietary performance 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 select synthetic stocks and proprietary additive package provide enhanced oxidation resistance and thermal stability at high temperatures and improved low-temperature properties relative to a conventional, non-synthetic formulation.

Guardol ECT meets or exceeds the requirements of API Service Categories CJ-4, CI-4, CH-4, CG-4, CF-4 and SM. It is approved under the latest OEM specifications from Caterpillar, Cummins, Detroit Diesel, Mack, Mercedes and Volvo for use in their 2007 low-emissions engines. 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-highway diesel trucks equipped with exhaust aftertreatment devices, such as diesel particulate filters and oxidation catalysts
- Diesel engines equipped with exhaust gas recirculation (EGR) or other NOx-reduction technologies
- Older diesel equipment with conventional, non-EGR engines
- Off-highway construction, earth moving and mining equipment
- Mixed fleets with diesel and gasoline-fueled vehicles

**Premium Synthetic  
Blend API CJ-4  
Diesel Engine Oil  
For Low-Emission  
Engines**

### **Contact Information**

**U.S. Customer  
Service:  
1-800-822-6457**

**U.S. Technical  
Services Hot Line:  
1-800-766-0050**

**International:  
+1-832-486-3363**

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**<http://lubricants.conocophillips.com>**

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Guardol ECT meets or exceeds the requirements of:

- API Service CJ-4, CI-4, CH-4, CG-4, CF-4, SM
- API CI-4 PLUS (SAE 15W-40)
- ACEA E7-04, E5-02, E3-96 (SAE 15W-40)
- Caterpillar ECF-3, ECF-2, ECF-1a
- Cummins CES 20081
- Detroit Diesel Power Guard 93K218 (SAE 15W-40), Power Guard 93K214 (SAE 15W-40), 7SE270 (4-stroke cycle engines)
- International (Navistar) diesel engines
- Mack EO-O Premium Plus (SAE 15W-40), EO-M Plus (both grades)
- Mercedes-Benz Sheet 228.3 (SAE 15W-40)
- Volvo VDS-4, VDS-3, VDS-2 (SAE 15W-40)

### **Features/Benefits**

- Excellent protection for new 2007 emissions-compliant engines and older diesel engines
- Specially formulated to protect exhaust aftertreatment devices
- Protects against particulate filter plugging
- 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 wear
- Protects against rust and bearing corrosion
- Excellent low-temperature pumpability with soot-laden oil
- High shear stability
- Good resistance to foaming and aeration

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### Typical Properties

SAE Grade	10W-30	15W-40
Density, g/cm <sup>3</sup> @ 15.6°C (60°F)	0.871	0.876
Color, ASTM D1500	L 4.0	4.0
Flash Point (COC), °C (°F)	226 (439)	229 (444)
Pour Point, °C (°F)	-40 (-40)	-36 (-33)
Viscosity,		
cSt @ 40°C	79.0	115
cSt @ 100°C	12.2	15.3
SUS @ 100°F	404	592
SUS @ 210°F	68.3	80.8
Viscosity Index	144	139
Cold Cranking Viscosity, cP	6,300	6,200
@ (°C)	(-25)	(-20)
High-Temp/High-Shear Viscosity, cP @ 150°C	3.6	4.4
Sulfated Ash, ASTM D874, wt %	0.95	0.95
Total Base Number (TBN), ASTM D2896	9.5	9.5
Zinc, wt %	0.126	0.126

### Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.

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