Havoline Fully Synthetic

5W-40

Synthetic Passenger Car Engine Oil

Product Data Sheet

Premium performance, multigrade motor oil formulated from selected synthetic base fluids and matching additive technology for use in passenger car and light truck gasoline and diesel engines. It is formulated with reduced levels of metals and the elements phosphorus and sulphur to provide durability of low emission vehicle technologies.

APPLICATIONS

- Gasoline and diesel engines in passenger cars and light trucks where ACEA C3 or A/B4 or A3/B3, or API SN or earlier API "S" performance categories are specified.
- Gasoline and diesel engines in passenger cars and light trucks where BMW LL-04, GM dexos2™, MB 229.31 or 229.51, Porsche A40 or VW 502 00 or 505 00 performance categories are specified.
- Low emission passenger car and light duty vehicle engines fitted with catalytic converter (gasoline) or diesel particulate filter technology.
- Four-stroke gasoline engines in portable power equipment where the manufacturer recommends conventional passenger car motor oils.

BENEFITS

- **Maximum engine life**
  Wider temperature range capability of the synthetic base fluid ensures correct oil viscosity to reduce friction at start-up, and to provide lubricity during high temperature operation. The effective anti-wear additive system minimizes wear in even the most sophisticated valve train mechanisms, including those with variable valve timing.

- **Maximum power and performance**
  Metallic detergent and ashless dispersant additive system enables power and performance by promoting control of ring belt and piston skirt deposits, even under severe operating conditions.

- **Reduced emissions**
  Formulated with reduced levels of metals, phosphorus and sulphur to promote the life of sensitive catalysts in catalytic converters and reduce the plugging rate of diesel particulate filters.

- **Minimum maintenance costs**
  Thermal stability and oxidation resistance inhibit in-service oil degradation which contributes to filter blocking and sludge formation in the oil galleries, crankcase and valve train. Low metal, phosphorus and sulphur formulation extends emission system durability.

- **Low oil consumption**
  Synthetic, shear-stable formulation promotes control of oil flow through the ring belt area by maintaining oil viscosity, and reduces oil evaporation at the elevated temperatures of the ring zone.

PERFORMANCE STANDARDS

API	SN (licenced)
ACEA	A3/B3, A3/B4, C3
BMW	Longlife-04 oil (approved)
Mercedes-Benz	229.51 (approved); 229.31 (approved)
Porsche	Oil category A40 (approved)
Volkswagen	502.00 and 505.00 (approved)

TYPICAL CHARACTERISTICS

Product Code	3032
SAE Grade	5W-40
Base Number, D2896, mg KOH/g D4739, mg KOH/g	 7.9 7.1
Flashpoint, COC, °C	>205
Pour Point, °C	-36
Phosphorus, m%	0.08
Sulfated Ash, m%	0.8
Viscosity at 40°C, mm^2/s at 100°C, mm^2/s	 90 14.5
Viscosity Index	168
Sulphur, m%	0.29

PACK SIZES

1000L, 205L, 60L, 20L, 5L

ENVIRONMENT, HEALTH AND SAFETY

Information is available on this product in the Caltex Material Safety Data Sheet (MSDS) and Caltex Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit www.caltex.com.au

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OTHER INFORMATION

For further information on Caltex products and services call the Caltex Technical Services on 1300 364 169 between 8.00 am and 6.00 pm (EST) Monday to Friday.

All reasonable care has been taken to ensure that the information contained in this publication is accurate at the time of printing. However, the information is liable to variation in the event of subsequent changes in the blend, formulation, method of storage, improper handling and usage etc.