



# Havoline® Fully Synthetic API SN, SAE 5W-40 Synthetic Passenger Car Motor Oil

Product Data Sheet

## Customer 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 maximum 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.

- **Reduced emissions**

Formulated with technology containing reduced levels of metals, phosphorus and sulfur, it maximizes the life of sensitive catalysts in catalytic converters and reduces the plugging rate of diesel particulate filters.

- **Maximum power and performance**

Metallic detergent and ashless dispersant additive system ensures maximum power and performance by providing superior control of ring belt and piston skirt deposits, even under the most severe operating conditions.

- **Minimum maintenance costs**

Superior thermal stability and oxidation resistance provides maximum protection against in-service oil degradation which contributes to filter blocking and sludge formation in the oil galleries, crankcase and valve train. Low metal, phosphorus and sulfur formulation extends emission system durability

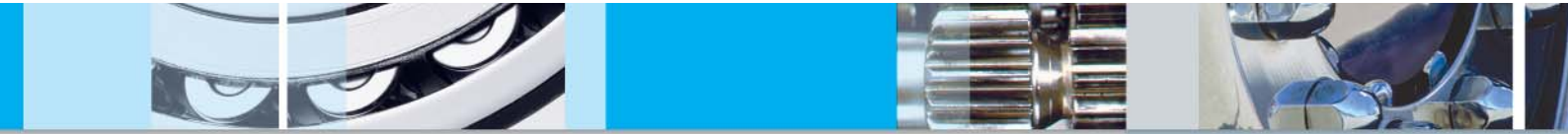
- **Low oil consumption**

Synthetic, highly shear-stable formulation provides superior control of oil flow through the ring belt area by maintaining oil viscosity, and reduces oil evaporation at the elevated ring zone temperatures experienced under all operating conditions.

## Product features:

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 under all operating conditions. It is formulated with reduced levels of metals and the elements phosphorus and sulfur to provide maximum durability of the latest low emission vehicle technologies. It is optimized to provide complete engine protection plus ultimate performance.

A Chevron company product



## Applications

- Naturally aspirated and turbocharged gasoline and diesel engines in passenger cars and light trucks
- Low emission passenger car and light duty vehicle engines fitted with latest 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

*Not recommended for use in gas-fuelled (CNG or LPG) engines, or in motorcycle engines.*

## Performance standards

- API **SN** (licensed)
- ACEA **C3**
- Approved as **BMW** Longlife-04 oil
- Approved under **Mercedes-Benz** Sheet 229.31
- Approved according to **Porsche** oil category A40
- Approved under **VW** Standard 502 00 and **VW** Standard 505 00



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continued

## Product specifications

HAVOLINE FULLY SYNTHETIC 5W-40 KEY PROPERTIES	RESULTS
<b>SAE Grade</b>	<b>5W-40</b>
<b>Product Code</b>	<b>500002</b>
<b>Base No.,</b>	
D2896, mg KOH/g	7.9
D4739, mg KOH/g	7.1
<b>Phosphorus, m %</b>	0.08
<b>Sulfated Ash, m %</b>	0.8
<b>Sulfur, m %</b>	0.29
<b>Viscosity,</b>	
mm <sup>2</sup> /s @ 40°C	90
mm <sup>2</sup> /s @ 100°C	14.5
<b>Viscosity Index</b>	168

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by Chevron Lubricants; Africa, Middle East and Pakistan.

**Environment, Health and Safety** Information is available on this product in the Material Safety Data Sheet (MSDS) and 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.caltexoils.com](http://www.caltexoils.com).

For more information, go to [www.chevronlubricants.com](http://www.chevronlubricants.com)