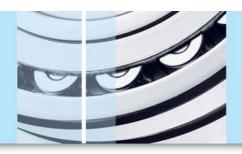


Havoline® Formula SAE 20W-50 Passenger Car Motor Oil

Product Data Sheet







Customer benefits

Improved protection against Low Speed Pre Ignition (LSPI) events

Specially formulated to protect against LSPI occurrence in turbocharged and/or newer gasoline direct-injection vehicles, which over time reduces engine damage.

Long engine life

Proven metallo-organic anti-wear additive system protects engines under all operating conditions by providing excellent wear control. Multigrade viscosity provides additional protection against wear under high temperature operating conditions.

Maintains high power and performance

Metallic detergent and ashless dispersant additive system maintains high power and performance by providing excellent control of piston and ring deposits under high temperature conditions.

Saves on maintenance costs

High thermal stability and oxidation resistance provides excellent protection against in-service oil degradation that contributes to filter blocking and sludge formation in the oil galleries, crankcase and valve train.

Low oil consumption

Highly shear-stable viscosity index improver controls oil flow through the piston rings by maintaining high-temperature oil viscosity within the ring belt area in all services.

Applications

- Naturally aspirated gasoline engines in passenger cars and light commercial vehicles.
- Four-stroke gasoline engines in portable power equipment where the manufacturer recommends conventional passenger car motor oils.

Not recommended for use in engines that require ILSAC or ACEA-classified oils, in turbocharged engines, in CNG or LPG-fuelled engines, in any diesel engines or in motorcycle engines.

Product features:

- Havoline Formula is a highly shear-stable multigrade gasoline engine oil formulated from selected base fluids for use in passenger car and light truck engines requiring API SN with SN Plus or lower performance lubricants.
- Havoline with Deposit
 Shield™ is an advanced
 detergent formula that helps
 prevent deposit build up for
 improved oil stability and
 increased engine durability.
- Havoline with Deposit Shield™ provides superior viscosity control that helps maintain engine power and preserve fuel economy.







Typical key properties

HAVOLINE® FORMULA	
SAE Grade	20W-50
Product Code	500010
Base No., D2896, mg KOH/g	7.4
Phosphorus, m %	0.08
Sulfated Ash, m %	0.07
Viscosity, mm²/s @ 40°C mm²/s @ 100°C	154 18.2
Viscosity Index	129
Zinc, m%	0.08

2003

Performance standards

API SN with SN Plus (licensed)

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.chevronlubricants.com.

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 Global Lubricants

Asia Pacific