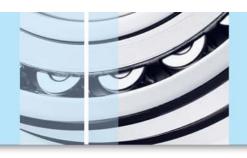
Product Data Sheet







Customer benefits

Longer engine life

Proven metallo-organic anti-wear additive system protects engines under severe operating conditions by providing excellent wear control in even the most sophisticated valve train mechanisms, including those with variable valve timing. Low viscosity and multigrade formulation reduces internal engine friction.

Maintains high power and performance

Works immediately upon contact with an engine's moving parts to create a protective coating that shields the engine against the deposits that lead to loss of performance. Provides excellent control of piston and ring deposits under high temperature conditions. Special friction modifiers assist in reducing internal engine friction for maximum fuel economy. Improved control of LSPI (Low Speed Pre-Ignition) events which helps to protect turbocharged gasoline direct injection engines.

Saves on maintenance costs

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

Reduces fuel consumption

Specifically tailored viscosity characteristics and effective friction modifier minimize internal engine frictional losses.

Low oil consumption

Low volatility, hydro-cracked base oil minimizes oil lose through evaporation.

Product features:

- Havoline®Formula
 is a resource conserving,
 multigrade gasoline engine oil
 for use in passenger car and
 light truck engines requiring
 low viscosity, ILSAC GF-5,
 API SN with API SN Plus
 performance lubricants under
 severe operating conditions.
- 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.









Applications

- Naturally aspirated and turbocharged gasoline engines in passenger cars and light commercial vehicles
- Naturally aspirated and turbocharged spark ignition engines fueled with CNG, LPG or fitted with gas/gasoline dual fuel systems in passenger cars and light commercial vehicles
- Light truck gasoline engines
- Four-stroke gasoline engines in portable power equipment where the manufacturer recommends conventional passenger car motor oils

Not recommended for use in diesel engines or motorcycle engines.

Typical key properties

HAVOLINE® FORMULA	
SAE Grade	10W-30
Product Code	500007
Base No., D2896, mg KOH/g	7.5
Phosphorus, m %	0.07
Sulfur, m %	0.2
Viscosity, mm²/s @ 40°C mm²/s @ 100°C	70.9 10.4
Viscosity Index	133
Zinc, m%	0.08

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

Performance standards

- API SN with SN Plus and Resource Conserving
- ILSAC GF-5

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

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For more information, go to www.caltex.com