



EXCEPTIONAL STABILITY PROFOUND PERFORMANCE



CENEX® PREMIUM GASOLINE ENGINE OILS



POWERFUL GASOLINE ENGINE OILS

Remarkable Engine Protection

Engineered to exceed the latest industry and manufacturers' requirements for new, current and high-mileage gasoline engines.

Cenex® passenger car motor oils are engineered to handle the most demanding driving conditions. Industry certified with millions of highway miles behind them, Cenex oils continuously deliver. Over-the-road tests prove that Cenex Lubricants provide superior engine protection, cleaner emissions, extended oil drains and remarkable overall performance.

Drivers across the nation trust Cenex products to keep their cars and light-duty trucks safe, maintenance-free and, most importantly, on the road.

The advanced technology in these premium lubricants offers numerous benefits including:

- Maximum wear protection
- Excellent defense against sludge and deposits
- High fuel efficiency engine performance
- Safeguards against low-speed pre-ignition in the latest gasoline turbocharged direct-injected engines
- Reduced friction and maximum high-temperature protection in the most severe driving environments



- Outstanding low-temperature protection to provide optimum startability even in the coldest temperatures
- Optimum viscosity retention ensures fuel efficiency throughout the life of the oil drain and prevents oil breakdown
- Emission system protection throughout the life of the vehicle



Benefits of Cenex[®] Premium Gasoline Engine Oils

Superior Wear Protection

Metal-on-metal contact between critical components can result in significant engine damage, resulting in unforeseen costs. Cenex[®] Maxtron[®] and Auto Gold[®] gasoline engine oils are tested and proven to reduce wear and deliver exceptional overall protection.



Enhanced Fuel Economy

Cenex gasoline engine oils contain a balance of new and existing friction modifiers to improve engine efficiency and fuel economy. By decreasing friction between critical engine parts, they can work and move more easily to burn less fuel. Minimum fuel economy standards can be exceeded by up to 40%, depending on the viscosity grade of the oil.

Low-Speed Pre-Ignition (LSPI)

Smaller turbocharged direct injection engines are specially designed to deliver improved fuel economy, but can result in operating conditions prone to low-speed pre-ignition. LSPI is the result of premature ignition of the main fuel charge, resulting in abnormal combustion and high cylinder pressures which in rare cases are sufficient enough to cause damage to pistons. Cenex Maxtron and Auto Gold are properly balanced to deliver protection against LSPI by meeting the industry API SP performance category limits. Cenex gasoline engine oil technology is field tested and have accumulated more than 1.5 million miles in testing with no evidence of LSPI damage.

For LSPI protection, the images below show:



A piston protected by Cenex gasoline engine oil technology with over 110,000 miles



Damage from severe LSPI conditions

The Exceptional Capabilities of Cenex®

The Ultimate Advantage

The Cenex® portfolio of gasoline oils is formulated to meet or exceed a variety of specifications and engine manufacturers' requirements. Our technologically advanced line of oils provide superior protection for passenger

cars, SUVs, pickups and other gasoline powered equipment. Whether using Maxtron® full synthetic, Auto Gold® synthetic blend, or Auto Gold® HMO all-mineral formulation, Cenex has the best gasoline engine oils to meet your equipment needs.



Industry Specifications

Cenex® gasoline engine oils are designed to meet or exceed API SP/API SP-RC and Resource Conserving ILSAC GF-6A.

Typical Applications

Maxtron® full synthetic gasoline engine oil meets or exceeds the newest API and OEM service categories and is recommended for applications calling for: **GM dexos1™ Gen 3** on SAE 0W-20 and 5W-30 oils, **Ford, Honda** and **Toyota** service fill. Maxtron® SAE 5W-20 and 10W-30 oils meet the performance requirements for **Chrysler MS-6395**.

Auto Gold® meets or exceeds the newest API and OEM service categories and is recommended for applications calling for: **Ford, Honda** and **Toyota** service fill, and car manufacturers' warranty requirements. Auto Gold® oils meet the performance requirements for **Chrysler MS-6395**.

Auto Gold® HMO meets all the applications of the Auto Gold brand and also helps maintain engine durability by retaining oil performance in older engines with higher mileage. Auto Gold HMO is specifically designed for vehicles with over 75,000 miles.

Always follow the manufacturers' recommendations for viscosity grades and service classifications.

| Industry Requirements | Viscosity Grade | All Weather Performance | LSPI Protection | Fuel Efficiency | Wear Protection | Cleanliness and Sludge | Emission Compatibility |
|-----------------------|---|-------------------------|-----------------|-----------------|-----------------|------------------------|------------------------|
| Maxtron® | SAE 0W-20 SAE 5W-20 SAE 5W-30 SAE 10W-30 | Superior | Superior | Superior | Superior | Superior | Excellent |
| Auto Gold® | SAE 5W-20 SAE 5W-30 SAE 10W-30 | Excellent | Superior | Excellent | Excellent | Very Good | Excellent |
| Auto Gold® HMO | SAE 10W-30 | | | | | | |

Ratings: Superior, Excellent, Very Good and Fair



| Maxtron® Typical Properties | | | | |
|---|--------------------------------|---|---|--------------|
| SAE Viscosity Grade | 0W-20 | 5W-20 | 5W-30 | 10W-30 |
| API / ILSAC | SP-RC/GF-6A | SP-RC/GF-6A | SP-RC/GF-6A | SP-RC/GF-6A |
| GM dexos1™ Gen 3 additive technology | Yes | No | Yes | No |
| Ford Specification | WSS-M2C962-A1 WSS-M2C947-A1 | WSS-M2C960-A1 WSS-M2C945-A1 WSS-M2C930-A1 | WSS-M2C961-A1 WSS-M2C946-A1 WSS-M2C929-A1 | N/A |
| Viscosity, cSt @ 40°C | 48 | 47 | 60 | 59 |
| Viscosity, cSt @ 100°C | 8.9 | 8.4 | 10.0 | 9.7 |
| Viscosity Index | 168 | 158 | 153 | 150 |
| CCS Viscosity, cP @ °C | 5,840 @ -35 | 4,110 @ -30 | 4,955 @ -30 | 3,740 @ -25 |
| MRV-TP1, cP @ °C | 25,000 @ -25 | 14,000 @ -35 | 16,500 @ -35 | 10,800 @ -30 |
| High Temp/High Shear (HTHS @ 150°C, cP) | 2.7 | 2.6 | 2.9 | 2.9 |



| Auto Gold® Typical Properties | | | | Auto Gold® HMO Typical Properties |
|---|---|---|--------------|-----------------------------------|
| SAE Viscosity Grade | 5W-20 | 5W-30 | 10W-30 | 10W-30 |
| API / ILSAC | SP-RC/GF-6A | SP-RC/GF-6A | SP-RC/GF-6A | SP-RC/GF-6A |
| GM dexos1™ Gen 3 additive technology | No | No | No | No |
| Ford Specification | WSS-M2C960-A1 WSS-M2C945-A1 WSS-M2C930-A1 | WSS-M2C961-A1 WSS-M2C946-A1 WSS-M2C929-A1 | N/A | N/A |
| Viscosity, cSt @ 40°C | 49 | 61 | 62 | 62.6 |
| Viscosity, cSt @ 100°C | 8.6 | 10.2 | 10 | 10 |
| Viscosity Index | 153 | 155 | 146 | 145 |
| CCS Viscosity, cP @ °C | 5,330 @ -30 | 6,250 @ -30 | 4,280 @ -25 | 4,360 @ -25 |
| MRV-TP1, cP @ °C | 18,600 @ -35 | 25,100 @ -35 | 13,100 @ -30 | 13,600 @ -30 |
| High Temp/High Shear (HTHS @ 150°C, cP) | 2.6 | 3.0 | 3.0 | 3.0 |



THE CENEX® GASOLINE ENGINE OIL ADVANTAGE



Maxtron®

A high performance, full-synthetic engine oil that provides maximum protection, keeping passenger cars, trucks and other gasoline-powered equipment running clean and smooth.

Maxtron® full-synthetic gasoline engine oils are the perfect choice for high performance engines that run hotter. Formulated with superior quality, high viscosity index synthetic base oils and a shear stable viscosity index improver, Maxtron provides outstanding high-temperature protection, low-temperature pumpability and extended oil drain intervals.

For both the 0W-20 and 5W-30 formulations, the addition of GM dexos1™ Gen 3 additive technology provides an exceptional balance of anti-wear, oxidation, detergents, dispersants, rust, corrosion and foam inhibitors. Maxtron exceeds the industry's most grueling engine tests and has achieved the American Petroleum Institute API SP-RC service

classification, which represents the latest industry standards for passenger car motor oils. The unprecedented formulation contains friction modifiers to maximize fuel economy, as well as correct phosphorus levels to optimize emission system durability and engine wear protection. Additionally, the formulation shields turbocharged engines against the rare phenomenon known as low-speed pre-ignition (LSPI), a serious event caused by premature combustion of the main fuel charge.

Applications:

- Cars and trucks with naturally aspirated or turbocharged gasoline engines
- Gasoline/electric hybrid engines
- Propane fueled engines

Auto Gold®

A synthetic blend gasoline engine oil that exceeds the newest and most stringent industry performance specifications.

Auto Gold® gasoline engine oils are formulated with premium quality, high viscosity base oils and a proven additive system with the proper balance of detergents, dispersants, friction modifiers and rust/high-temperature oxidation inhibitors to provide excellent anti-wear protection, increased fuel efficiency and excellent durability. Auto Gold is formulated with a special viscosity index improver that provides low temperature pumpability to protect engines during cold startups.

The Auto Gold synthetic blend formulation exceeds the industry's most grueling engine tests and has achieved the American Petroleum

Institute API SP-RC service classification. Additionally, Auto Gold formulations are balanced to deliver protection against potential damages caused by low-speed pre-ignition (LSPI) events.

Applications:

- Four-stroke naturally aspirated and turbocharged gasoline engines
- Stationary gasoline engines and standby generators
- Off-highway gasoline powered agricultural and construction equipment

Note: Auto Gold® HMO meets all the applications of the Auto Gold® brand but with targeted additives specially designed for vehicles with over 75,000 miles.





The Automotive World is Changing

As automotive manufacturers continue to engineer vehicles to squeeze as much power as possible out of every drop of fuel, Cenex® Lubricants continue to build industry-leading products to protect engines, while offering maximum fuel economy.

Cenex® premium gasoline engine oils are designed to provide remarkable protection in this ever-changing world of demanding fuel economy expectations and low-temperature performance. With the introduction of more complex hardware systems, engines face numerous lubrication challenges:

- Engines must be cleaner over longer drain intervals
- Oils must sustain thermal stability while preventing degradation to enable extended oil drains
- Lubricants must contribute to fuel economy improvement, while still protecting the engine from wear

One way of addressing these challenges is through the continued trend towards lower viscosity, full-synthetic engine oils. These oils must provide the stability, durability and fuel economy today's engines demand. Cenex continues to redefine excellence by building gasoline engine oil products for the future that exceed industry standards and customer expectations.

Visit the Equipment Lookup Tool on cenex.com to determine the right product for your vehicle.

