



*The First in Synthetics®*

## Industrial Synthetic Lubricants

### PRODUCT DESCRIPTION

AMSOIL SG Series Extreme Pressure Gear Oils are made from shear-stable, high-quality synthetic base oils and are fortified with additives that deliver high performance in industrial gear applications. These oils are designed to reduce maintenance costs by extending equipment life, extending drain intervals, and protecting against wear, pitting and rust.

### Base Stock Technology

AMSOIL SG Oils are compatible with mineral gear oils, synthetic gear oils\*, and seals—making them easy to use. They preserve new seals, prevent leaks, and help rejuvenate old, brittle seals.

AMSOIL SG synthetic base stocks are inherently resistant to oxidation, helping provide long life. The naturally high viscosity indices, low pour points, and lack of paraffins (wax) make these lubricants ideal for use in wide operating temperature ranges. At low operating temperatures, equipment starts easier, is not starved of lubrication from channeling and product solidification and the need for sump heaters is reduced. At higher operating temperatures, AMSOIL SG base oils resist the degradative effects of oxidation that cause poor lubricant performance, and they maintain an optimal lubricating film between parts.

The base oils are also hydrolytically stable and readily separate from water. This prevents unwanted oil/water emulsions that have poor lubricating properties and eases water removal from the sump.

### Additive Performance

AMSOIL SG Oils are fully formulated with sulphur/phosphorous extreme-pressure additives, antioxidants, rust inhibitors, and anti-foam agents. The thermally-stable, extreme-pressure additive system forms a hard, iron-sulfide coating on metal components. This iron-sulfide coating prevents metal-to-metal contact under boundary lubrication conditions, reduces friction and protects components against shock loading and wear. The antioxidants increase the oxidation resistance of the synthetic base oils for long, clean lubricant performance. These oils protect against rust from water or process contaminants and prevent foaming, ensuring proper lubrication.

## Synthetic SG SERIES Extreme Pressure Gear Oils

### PERFORMANCE FEATURES

- Extreme-pressure protection
- Additized to prevent rust, oxidation and foam
- Compatible with seals and other lubricants
- Extended drain intervals and all-season performance
- Hydrolytically stable & readily separate from water

### APPLICATIONS & REQUIREMENTS

- U.S. Steel 224 • AGMA 250.04
- AGMA 9005-E02 • DIN 51517 Part 3
- David Brown ET 33/80, S1.53 and 101 Type E
- Cincinnati Milacron P-35, P-59, P-63, P-74, P-76, P-77 and P-78

### APPLICATION RECOMMENDATION

AMSOIL Synthetic SG Series Extreme Pressure Gear Oils are recommended for industrial applications operating under heavy loads and shock conditions and specifying an extreme-pressure lubricant. This includes, but is not limited to, enclosed industrial spur, bevel, herringbone, helical and worm gears\*\*, chain drives, sprockets and most metal-on-metal systems requiring extreme-pressure additives. These lubricants are excellent for use in severe operating conditions and their synthetic properties make them good all-season lubricants.

The SG Series Gear Oils meet the AGMA ratings for synthetic gear oils and EP gear oils and are recommended for use in applications specifying these standards. Although AMSOIL SG Series Oils are compatible with mineral oil-based lubricants, for optimum performance it is recommended that the system be thoroughly drained and, if warranted, cleaned.

The ability of AMSOIL SG Series Gear Oils to extend drain intervals is subject to operating conditions and maintenance practices. Monitoring by oil analysis is recommended.

### NOTES:

\*AMSOIL SG Series Gear Oils, as well as other synthetic or mineral-based oils, are not compatible with polyglycol-type gear oils. Thorough flushing prior to changeover is required.

\*\*AMSOIL SG Series Gear Oils are not recommended for use in worm gear applications or applications containing yellow metal and operating at or above 200°F (93°C). Also not recommended for use in other applications operating at or above 250°F (171°C). For such applications, please consult your AMSOIL Dealer or AMSOIL INC.

AMSOIL SG Gear Oils are not recommended for automotive hypoid gear applications.

## TYPICAL TECHNICAL PROPERTIES

Synthetic SG Series Gear Oils	SGK ISO 100	SGL ISO 150	SGM ISO 220	SGN ISO 320	SGO ISO 460	SGP ISO 680
AGMA EP Gear .....	.3 EP	4 EP	5 EP	6 EP	7 EP	8 EP
AGMA Synthetic Gear .....	.3S	4S	5S	6S	7S	8S
ISO VG — ASTM D-2422 .....	100	150	220	320	460	680
VK 100°C — ASTM D-445 .....	14.4	19.3	25.5	32.8	43.3	55.4
VK 40°C — ASTM D-445 .....	104.7	156.8	228.6	329.7	477.4	697.5
Viscosity Index — ASTM D-2270 .....	140	141	142	140	141	140
SPGR — ASTM D-1298 .....	0.8751	0.8789	0.8827	0.8871	0.8894	0.8944
Density — ASTM D-1298 .....	7.287	7.318	7.351	7.387	7.406	7.448
Flash Point °C (°F) — ASTM D-92 .....	242 (468)	244 (471)	248 (478)	250 (482)	248 (478)	250 (482)
Fire Point °C (°F) — ASTM D-92 .....	268 (514)	270 (518)	274 (525)	280 (536)	276 (529)	278 (532)
Pour Point °C (°F) — ASTM D-97 .....	-43 (-45)	-40 (-40)	-38 (-36)	-34 (-29)	-31 (-24)	-30 (-22)
Noack — ASTM D-5800 .....	4.1%	4.0%	3.4%	3.2%	2.7%	2.7%
Four-Ball Wear Test — ASTM D-4172 Mod. (40 Kg, 1200 rpm, 75°C, 60 min.) .....	0.40	0.40	0.40	0.40	0.40	0.40
Copper Strip Corrosion Test ASTM D-130 121°C (250°F), 3 hrs. ....	1B	1B	1B	1B	1B	1B
Timken EP Load ASTM D-2782 .....	80 lbs	80 lbs	80 lbs	80 lbs	80 lbs	80 lbs
Four-Ball EP ASTM D2783 — Weld Point, Kg .....	315	315	315	315	315	315
Load Wear Index, Kgf .....	60	60	62	62	62	62
FZG, Passed Stage ASTM D5182 .....	12	12	12	12	12	12
Channel Point @ -40°C (-40°F) — FTM 3456.2 .....	Non-Channeling (All ISO Grades)					

### AMSOIL PRODUCT WARRANTY

AMSOIL industrial lubricants are formulated to meet or exceed accepted industry specifications. AMSOIL warrants that the use of its lubricants will not cause mechanical damage to any mechanically-sound equipment when AMSOIL products are used in full compliance with the company's recommendations. However, the purchaser of these lubricants is responsible for determining if these specifications are adequate and proper for the intended application. The AMSOIL warranty is limited to lubricant performance consistent with indicated specifications. No additional warranty, expressed or implied, can be made.

### AMSOIL PRODUCT AVAILABILITY

AMSOIL products are available in five-gallon pails, 55-gallon drums, 275-gallon totes and bulk quantities. For 275-gallon totes, please allow two to four weeks for delivery.

AMSOIL Industrial Lubricants are stocked in Superior, Wisconsin and in select regional distribution centers throughout the United States and Canada. AMSOIL will stock additional quantities of lubricants or special-order products based on customer requests and regional demands.

AMSOIL Industrial Synthetic Lubricants and information are available from your AMSOIL Industrial Dealer or AMSOIL Inc.



Jari Marjanen - Certified Dealer #1702935

<http://www.JMAlaska.com> 1-907-982-7115