



Mobil SHC™ Gear OH Series

Exceptional Performance Gear Oils for Off-Highway Equipment

Product Description

The Mobil SHC™ Gear OH Series lubricants are exceptional performance heavy-duty gear oils primarily designed to lubricate enclosed gearing as well as plain and rolling element bearings in off-highway equipment subject to shock and heavy loading. They are designed to provide outstanding service in terms of equipment protection, oil life, and problem-free operation helping to enable increased customer productivity. These scientifically engineered synthetic lubricants are formulated from synthetic base fluids that have exceptional oxidation and thermal properties and excellent low temperature fluidity. The combination of a naturally high viscosity index and a unique additive system helps enable these products to provide outstanding performance under severe high and low temperature operating conditions. The nature of the synthetic base fluids also contributes to the products' excellent low temperature performance. They deliver outstanding gear scuffing protection in heavily loaded gearboxes. The synthetic base stocks have inherently low traction properties that result in low fluid friction in the load zone of non-conforming surfaces such as gears and rolling element bearings. Reduced fluid friction produces lower operating temperatures and improved gear efficiency. The Mobil SHC Gear OH Series is available in viscosity range from ISO VG 320 to 680, and are the products of choice for key OEMs and customers for demanding off-highway applications.

Features and Benefits

The Mobil SHC Gear OH Series of lubricants is a member of the Mobil SHC brand of products. These scientifically engineered synthetic lubricants symbolize the continuing commitment to using advanced technology to provide outstanding lubricant products. The Mobil SHC Gear OH Series of lubricants provide benefits not possible with mineral stocks, particularly under extreme high and low temperature operating conditions.

Our formulation scientists have used a proprietary additive combination that fortifies the base fluids to provide excellent EP and anti-wear performance that protects equipment, even under heavy load situations. Specific features and potential benefits for the Mobil SHC Gear OH Series of lubricants include:

Features	Advantages and Potential Benefits
Outstanding load-carrying and antiwear properties	Helps extend gear life and reduce maintenance costs
High viscosity index	Trouble-free operation over a wide temperature range particularly at extremely low temperatures.
Low traction properties	Helps improve gear efficiency and lower operating temperatures lead to lower operating costs
Outstanding thermal/oxidation resistance and long product life	Helps reduce lubricant consumption, which can reduce product and change-out costs
Light color	Helps minimize the need for gear cleaning prior to inspections, which can reduce maintenance costs

Applications

Application Considerations: While the Mobil SHC Gear OH Series are compatible with mineral oil based products, admixture may detract from their performance. Consequently it is recommended that before changing a system to one of the Mobil SHC Gear OH Series, it should be thoroughly cleaned out and flushed to achieve the maximum performance benefits.

Mobil SHC Gear OH Series oils are recommended for many types of enclosed steel-on-steel gear drives. They are suitable for both circulation and splash lubrication systems. Mobil SHC Gear OH Series is available in viscosities from ISO 320 to ISO 680, providing the right lubrication option for low temperature applications where pour points as low as -45°C (-49°F) are required to high temperature applications where operating temperatures of 121°C (250°F) are encountered. They are particularly recommended for lubricating gear sets in off-highway applications such as those found in mining, where heavy or shock loads and boundary lubrication conditions may prevail.

Typical Properties

Mobil SHC Gear OH	320	460	680
ISO Viscosity Grade ISO 3448	320	460	680
Kinematic Viscosity, ASTM D 445			
cSt @ 40° C	320	460	680
cSt @ 100° C	40.1	54.9	76.1
Viscosity Index, ASTM D 2270	178	186	193
ASTM Color, ASTM D 1500	L0.5	L0.5	L0.5
Pour Point, °C, ASTM D 5950	-45	-42	-39
Brookfield @-20° F (-28° C), ASTM D 2983	60,000	110,000	170,000
Total Acid Number, mg KOH/g, ASTM D 665	0.6	0.6	0.6
Density @15.6° C kg/l, ASTM D 4052	0.86	0.86	0.86
Flash Point COC, °C, ASTM D 92	233	233	233
4-Ball EP Teat, ASTM D 2783: Weld load, Kg	250	250	250
4-Ball EP Teat, ASTM D 2783: Load Wear Index, Kgf	48	48	48
FZG Gear Scuffing (A/8.3/90), ISO 14635-1 mod Failure Stage	>13	>13	>13
Copper Corrosion, ASTM D130, 3 hrs @ 100° C	1B	1B	1B
Foaming Characteristics, ASTM D 892, Seq. I, II, III, Tendency/Stability, ml/ml	0/0, 0/0, 0/0	0/0, 0/0, 0/0	0/0, 0/0, 0/0
Rust Protection, ASTM D 665B, Synthetic Sea Water	Pass	Pass	Pass

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

All products may not be available locally.

Note for Canadian users: Mobil SHC Gear OH Series is not controlled under Canadian WHMIS legislation.

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com. ExxonMobil is comprised of numerous affiliates and subsidiaries, many with names that include Esso, Mobil, or ExxonMobil. Nothing in this document is intended to override or supersede the corporate separateness of local entities. Responsibility for local action and accountability remains with the local ExxonMobil-affiliate entities.

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