



Mobilgear SHC Series

Mobil Industrial , Japan

Gear Oils

Product Description

Mobilgear SHC 22M and 46M are supreme performance ultra high viscosity synthetic lubricants designed specifically for use in heavily loaded, low speed gears where boundary lubrication conditions often prevail. They are formulated from synthetic base stocks, which have remarkable low-temperature fluidity, even at such high viscosity grades. These ultra high viscosity products can be pumped over relatively long distances and use standard spray application equipment. The combination of a naturally high viscosity index and a unique additive system gives the products exceptional thermal/oxidative properties and provides outstanding performance under severe high and low temperature operating conditions even with very slow moving gears. The additive formulation also provides excellent EP and anti-wear performance and rust and corrosion inhibition.

Mobilgear SHC 22M and 46M exceed Falk Corporation's minimum viscosity requirements for intermittent lubrication of gears - winter and summer grades, respectively. These grades also meet the viscosity requirements for AGMA lubricant numbers 14R and 15R, respectively, although they are not residual lubricants, but are leading edge synthetic products. Mobilgear SHC 22M and 46M do not contain any solvent or any asphaltic-type base oil.

Features and Benefits

Mobilgear SHC 22M and 46M lubricants are leading members of the Mobil SHC brand of products that are world-renowned for their innovation and performance. These scientifically engineered synthetic lubricants symbolize the continuing commitment to using advanced technology to provide outstanding lubricant products. Mobilgear SHC 22M and 46M provide benefits not possible with mineral stocks, particularly under extreme high and low temperature operating conditions, and deliver performance features and customer benefits.

Our formulation scientists have used innovative combinations of base oils plus a proprietary additive combination that fortifies the base oils to provide excellent EP and anti-wear performance, even in shock load situations. The resulting finished products have shown exceptional performance in OEM evaluations, customer field tests and commercial use. These ultra high viscosity products are particularly effective in low-speed, high load, high temperature situations and provide excellent gear and bearing protection, longer oil life and excellent all-round service compared with conventional products.

Specific features and potential benefits for the Mobilgear SHC 22M and 46M lubricants include:

Features	Advantages and Potential Benefits
Thick EHL fluid film formation and selected additives provide outstanding load-carrying, antiwear and tackiness properties	Extended gear life, less downtime and reduced maintenance and replacement cost
	Avoids potential for solvent retention and reduced viscosity with solvent-type products
	Provides much thicker EHL film compared with semi-fluid grease products
Excellent pumpability at ambient temperatures	Reduction in pump replacement costs
Uses existing lubricant spray equipment	Low-cost conversion from asphaltic or semi-fluid grease products
Lower application rates than greases, less waste compared with asphalt/solvent products	Reduced lubricant consumption and disposal costs
Does not contain solids or asphaltic resins	Absence of hard-packed gear root deposits results in reduction in downtime and maintenance costs
Light coloured product	Avoids need for costly gear cleaning prior to inspection
Solvent-free	Improved safety through absence of solvent

Applications

Application Considerations: Normally, conversion to Mobilgear SHC 22M or 46M from asphaltic or grease products will be a simple process with no change in

lubricant spray equipment. It is recommended that the gears be thoroughly cleaned to take advantage of the light colour of these synthetic products. Consult your Mobil representative for further details on lubricant conversion.

Mobilgear SHC 22M and 46M are designed specifically for use in heavily loaded, low speed open gearing which drive stationary rotating machinery. Product application is by spray nozzle systems. Specific applications include:

- Kilns and mills in metal mining, cement and limestone production and in sugar plants
- Slow speed, heavily loaded plain and rolling contact bearings

Typical Properties

Mobilgear SHC	22M	46M
ISO Viscosity Grade		
Viscosity, ASTM D 445		
cSt @ 40° C	22,000	46,000
cSt @ 100° C	700	1375
Viscosity Index, ASTM D 2270	180	180
Pour Point, °C, ASTM D 97	6	15
Flash Point, °C, ASTM D 92	240	240
Specific Gravity @15.6° C kg/l, ASTM D 4052	0.89	0.924
Rust Test, ASTM D 665 B, Sea Water	Pass	Pass
Copper Strip Corrosion, ASTM D 130,3 hrs @ 100° C	1B	1B

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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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

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