



**MOBIL™ SM 16M**  
Mobil Industrial , Caribbean  
GEAR OIL

**Product Description**

Mobil™ SM 16M is a high performance, ultra-high viscosity, food-grade synthetic lubricant designed specifically for use in sugar mill applications including large roller/thrust bearings and boundary lubrication conditions seen in heavily loaded, low speed gears. It is formulated from synthesized base stocks with impressive low temperature fluidity considering its extremely high viscosity grade. Mobil SM 16M exhibits excellent pumpability such that it can be pumped over relatively long distances and used in equipment with standard lubricant spray application. Reduced lubricant consumption rates are possible without increasing operating temperatures or unscheduled maintenance. The unique additive system and naturally high viscosity index give this product robust thermal and oxidative stability combined with outstanding performance under severe high and low temperature operating conditions - even with very slow moving gears. The product provides strong anti-wear and extreme pressure (EP) protection and inhibits rust and corrosion.

Mobil SM 16M meets or exceeds Falk Corporation's minimum viscosity requirements for intermittent lubrication of gears for both winter and summer service. This product also meets the viscosity requirements for AGMA lubricant numbers 14R.

Mobil SM 16M is NSF H-1 registered for food machinery lubrication and meets the requirements of FDA regulation 21CFR 178.3570 "Lubricants for Incidental Contact with Food". It is clear and light in color.

Mobil SM 16M does not contain any solvents or asphalt-type base oils.

**Features and Benefits**

Mobil SM 16M overall performance provides outstanding gear and bearing protection, longer oil life, and excellent all-round service compared with conventional products. Specific features and potential benefits for Mobil SM 16M 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 when compared to conventional oils       |
|                                                                                                                            | 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 when compared to conventional oils                                     |
| Does not contain solids or asphaltic resins                                                                                | Absence of hard-packed gear root deposits results in reduction in downtime and maintenance costs                        |
| Light colored product                                                                                                      | Avoids need for costly gear cleaning prior to inspection                                                                |
| Solvent-free                                                                                                               | Improved safety through absence of solvent                                                                              |
| NSF H1 registered for food machinery applications                                                                          | Meets the requirements of many food retailers and government agencies for 'Lubricants for Incidental Contact with Food' |

**Applications**

Application Considerations: Conversion to Mobil SM 16M from asphaltic or grease-based products should normally be a straight forward process with no change in lubricant equipment necessary. It is recommended that gears be thoroughly cleaned to take advantage of the light color of this product. Consult your ExxonMobil representative for further details on lubricant conversion.

Mobil SM 16M is designed specifically for use in heavily loaded, low speed open gearing which drive stationary rotating machinery. Product application is often through spray nozzle systems. Specific applications include:

- Large roller and thrust bearings in sugar mills
- Kilns and mills in metal mining, cement and limestone production and transmission gears and crystallizers in sugar mills
- Slow speed, heavily loaded plain and rolling contact bearings

## Specifications and Approvals

| Mobil SM 16M meets or exceeds the requirements of: | 16M |
|----------------------------------------------------|-----|
| FDA 21 CFR 178.3570                                | X   |

| Mobil SM 16M is registered to the requirements of: | 68     |
|----------------------------------------------------|--------|
| NSF H1                                             | X      |
| NSF Registration Number                            | 142657 |

## Typical Properties

| Mobil SM 16M                                       |        |
|----------------------------------------------------|--------|
| Viscosity, ASTM D 445                              |        |
| cSt @ 40° C                                        | 16,000 |
| cSt @ 100° C                                       | 500    |
| Viscosity Index, ASTM D 2270                       | 167    |
| Pour Point, °C, ASTM D 97                          | 6      |
| Flash Point, °C, ASTM D 92                         | 200    |
| Timken OK load , ASTM D 2782 modified, Lb          | 60     |
| FZG test DIN 51354 modified, Failure stage         | 13     |
| 4 Ball EP test, ASTM D 2783 modified Load wear, mm | 0.476  |
| Copper Strip Corrosion, ASTM D 130,3 hrs @ 100° C  | 1B     |

## 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.

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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](http://www.exxonmobil.com)

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