



## Mobilgard™ 410 NC

ExxonMobil Marine , Ethiopia

Marine Crankcase Oil

### Product Description

Mobilgard 410 NC (No Chlorine) engine oil is a non-zinc and non-chlorine lubricant specifically formulated with an Electro Motive Diesel (EMD) and General Electric (GE) endorsed additive technology to meet requirements of heavily loaded diesel engines manufactured by EMD and used in marine applications. Its alkalinity reserve provides excellent corrosion protection when using fuels containing up to 0.05 wt.% sulfur, even though metals such as steel, copper, silver and bronze are present. It has excellent lubricating properties and has high viscosity index to help reduce oil consumption, and is optimized for low and ultra low sulfur fuel use and is LNG, biofuel and Tier IV engine ready.

### Features and Benefits

- Formulated to meet performance requirements of Tier IV engines
- High thermal and oxidation stability helps protect against sludge formation in intermittent marine service, providing clean, smooth running engines
- Effective anti-wear and load carrying properties help protect critical wear surfaces and extend engine life
- Optimized TBN and sulfated ash content for use with low and ultra low sulfur diesel fuel and is biofuel and LNG ready
- Advanced dispersant technology provides high soot loading capability leads to excellent cleanliness in engines with lower lube oil consumption rates
- Excellent TBN reserve and retention to combat fuel/combustion related corrosion and deposits

### Applications

- Heavily loaded diesel engines manufactured by EMD/GE and used in marine applications
- Marine diesel engines of the highest horsepower, or higher brake mean effective pressure (BMEP) using distillate fuels with a sulfur content up to 0.05 wt.%
- Diesel engines manufactured by Alco, Detroit Diesel and Fairbanks Morse

### Properties and Specifications

Property	
Grade	SAE 40
Ash, Sulfated, mass%, ASTM D874	1
Base Number, mgKOH/g, ASTM D2896	10
Density @ 15 C, kg/l, ASTM D4052	0.894
Flash Point, Cleveland Open Cup, °C, ASTM D92	255
Kinematic Viscosity @ 100 C, mm <sup>2</sup> /s, ASTM D445	14.4
Kinematic Viscosity @ 40 C, mm <sup>2</sup> /s, ASTM D445	141
Pour Point, °C, ASTM D97	-18
Viscosity Index, ASTM D2270	104

Property	
Zinc, mg/kg, ASTM D5185	10

### 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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Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

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