## **Product Information**



# SafeGard<sup>™</sup> Low Ash (LA) Natural Gas Engine Oils

Outstanding service in natural gas fueled compressor engines Superior engine cleanliness and long service life

#### **DESCRIPTION**

Safegard Low Ash Natural Gas Engine Oils are premium quality crankcase oils designed specifically for high-output engines using gaseous fuels. These oils are commonly used in both large and small engines powered by natural gas and compressing natural gas on distribution pipelines. They also are used in a wide variety of power generating applications where natural gas fuels are economically available.

Safegard<sup>™</sup> Low Ash Natural Gas Engine Oils provide outstanding protection against piston wear and liner scuffing and keep rings free of varnish buildup. These oils offer outstanding antiwear protection for engine bearings, valve train and other internal engine parts.

Safegard<sup>™</sup> Low Ash Natural Gas Engine Oils are safe for use on engines equipped with NSCR emission reduction systems. These oils are blended from oem approved additives to minimize valve recession and reduce the possibility of spark plug fouling and pre-ignition. These oils may extend drain intervals and extend filter life according to manufacturer's recommendations.

#### **APPLICATION**

- Two stroke cycle and four stroke cycle natural gas fueled engines requiring low ash oils and manufactured.
- Engines operating on sour gas (high sulphur) may require oils with higher TBN ratings
- Four-stroke cycle and 2-stroke cycle natural gas engines where the manufacturer specifies oil meeting the service performance levels of API CF or API CD

### **BENEFITS**

- Outstanding protection for high output engines fueled by natural gas
- Outstanding antiwear protection for pistons, liners, rings, valves and other moving parts
- Low ash formula minimizes valve recession and combustion chamber deposits
- Reduces sludge formation in top end of engine
- Suitable for use with fuels containing low sulphur levels and CFC's
- Reduces spark plug fouling and pre-ignition
- Moderate protection of nitration generation in lean-burn and stoichiometric four-cycle engines equipped with catalytic converters
- Low phosphorous levels preserve emission catalysts with NSCR emission reduction systems



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## **Product Information**

PERFORMANCE LEVELS

Cummins L10, M11

Caterpillar

Dresser-Rand Cat. I, II, & III (SAE 30)

Cooper-Bessemer GE Jenbacher Cooper-Superior Wartsila
Detroit Diesel
Waukesha
Deutz
Worthington
Delaval Enterprises

| TYPICAL PROPERTIES        | Method | SAE 30 | SAE 40 | SAE 50 | 15W-40 |
|---------------------------|--------|--------|--------|--------|--------|
| Specific Gravity @15.6 °C | D-4052 | 0.8855 | 0.8973 | 0.8927 | 0.8708 |
| Viscosity cSt @ 40° C     | D-445  | 82.07  | 120.85 | 177.72 | 92.61  |
| Viscosity cSt @ 100° C    | D-445  | 10.91  | 13.56  | 16.78  | 14.44  |
| Viscosity Index           | D-2270 | 120    | 109    | 99     | 162    |
| Flash Point, COC °C       | D-92   | 260    | 273    | 250    | 236    |
| Flash Point, COC °F       |        | 500    | 523    | 482    | 457    |
| Pour Point °C             | D-97   | -36    | -30    | -21    | -39    |
| Pour Point °F             |        | -33    | -22    | -6     | -38    |
| Total Base Number (TBN)   | D-2896 | 2.1    | 2.5    | 3.0    | 5.3    |
| Ash Content, % Mass       | D-482  | 0.37   | 0.37   | 0.31   | 0.8    |
| Phosphorous content, ppm  | D-4951 | 390    | 340    | 390    | 385    |
| Sulfated Ash, % Mass      | D-874  | 0.01   | 0.01   | 0.01   | 0.01   |
| ML Bulk Number            | -      | 586460 | 586486 | 592190 | 592202 |

The information on this Product Data Sheet is believed to be accurate and is typical of current production. Specifications are subject to change without notice.

This engine oil's service level is in accordance with the latest version of SAE J300 Engine Oil Viscosity Classification and SAE J183 Engine Oil Performance and Engine Service Classification.

Health And Safety Information See separate Safety Data Sheets available on request.

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