



Mobil Pegasus™ 1

Mobil Industrial , Finland

Gas Engine Oil

Product Description

Mobil Pegasus™ 1 is a high performance synthetic gas engine oil designed to meet the highest performance requirements of the most demanding naturally aspirated and turbocharged stoichiometric and lean-burn gas engines. It is formulated from wax-free synthetic base oils and a balanced additive system to provide performance that is unattainable with conventional mineral oil-based gas engine oils. The potential benefit is an improved bottom line through improved engine and oil life, reduced maintenance costs and lower fuel costs.

The unique formulation of Mobil Pegasus 1 minimises ash deposits, piston land and ring belt deposits, liner scuffing, and valve seat and valve face wear. It has outstanding resistance to oxidation and the inherently high viscosity index of the synthetic base oil components ensure a protective lubricant film at high temperatures well above the limit for mineral oil-based products. Mobil Pegasus 1 exhibits low volatility, a performance characteristic that helps reduce oil consumption and improve valve lubrication performance measurably. Its unique viscometrics and low traction coefficient reduce power losses and provide potential fuel economy benefits, particularly under variable load, speed and temperature conditions.

Features and Benefits

The state-of-the art technology used in Mobil Pegasus 1 is designed to provide a high level of engine performance in a wide range of high-output gas engines. Its outstanding oxidation resistance and thermal stability provide extended service life for both the engines and the oil. In addition, the unique properties of Pegasus 1 will result in lower internal friction under cold start-up and hot running conditions resulting in reduced wear and potentially lower fuel consumption. The use of this product will result in lower maintenance costs through its extended service life capability, reduced filter costs and improved engine life.

| Features                                        | Advantages and Potential Benefits                                                                                                                                 |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Balanced Synthetic Formulation                  | Extended drain intervals and improved engine life<br>Longer filter life potential<br>Cleaner engines                                                              |
| Outstanding Oxidation and Thermal Stability     | Reduced levels of ring land and ring groove carbon<br>Improved valve guide performance<br>Lower levels of carbon/coking deposits                                  |
| Excellent High and Low Temperature Performance  | Effective lubrication under cold startup conditions<br>Easier engine cranking at low temperatures<br>Improved engine protection under high temperature conditions |
| Naturally High Viscosity Index                  | Wide temperature performance                                                                                                                                      |
| Low Volatility                                  | Reduced oil consumption<br>Reduced deposit formation in critical engine areas                                                                                     |
| Exceptional Anti-wear and Anti-scuff Protection | Resists wear and scuffing of liners and pistons particularly in high BMEP engines                                                                                 |
| Low Traction Coefficient                        | Potential for lower fuel costs<br>Improved engine power<br>Easier starting                                                                                        |

Applications

- Mobil Pegasus 1 is recommended for a wide range of gas engine modes.
- The product is particularly suited for high speed, four-cycle turbocharged and naturally aspirated gas engines requiring a nominal 0.5% ash gas engine oil.
- It is an excellent lubricant for both stoichiometric and lean-burn designs
- It is ideally suited for cogeneration and ebullient cooled applications because of its wide temperature range capability and extended engine protection and long oil life.
- Mobil Pegasus 1 is fully compatible with all seals commonly used in gas engines and with mineral oils but admixture with mineral oils will lower the performance benefits that can be obtained from this outstanding lubricant
- May be used with gas engines using alternative energy sources for fuel gas containing up to 0.3% sulphur as hydrogen sulphide

Specifications and Approvals

| This product has the following approvals:                                                    |
|----------------------------------------------------------------------------------------------|
| MAN M 3271-1                                                                                 |
| MAN M 3271-2                                                                                 |
| MWM TR 0199-99-2105, Lube Oils for Gas Engines                                               |
| VOLVO CNG FUELED BUS ENGINES                                                                 |
| Wartsila W25SG                                                                               |
| INNIO Waukesha Engine 220GL Applications Using Pipeline Quality Gas                          |
| INNIO Waukesha Engine Cogeneration / Gas Compression Applications Using Pipeline Quality Gas |
| Caterpillar Energy Solutions TR 2105, Lube Oils for Gas Engines (CG132, CG170, CG260)        |

| This product meets or exceeds the requirements of: |
|----------------------------------------------------|
| Caterpillar                                        |

Properties and Specifications

| Property                                      |            |
|-----------------------------------------------|------------|
| Grade                                         | SAE 15W-40 |
| Ash, Sulfated, mass%, ASTM D874               | 0.5        |
| Flash Point, Cleveland Open Cup, °C, ASTM D92 | 238        |
| Kinematic Viscosity @ 100 C, mm2/s, ASTM D445 | 13.0       |
| Kinematic Viscosity @ 40 C, mm2/s, ASTM D445  | 94         |
| Pour Point, °C, ASTM D97                      | -48        |
| Viscosity Index, ASTM D2270                   | 137        |

| Property                                                   |       |
|------------------------------------------------------------|-------|
| Density 15 C, kg/L, CALCULATED                             | 0.846 |
| Base Number - Xylene/Acetic Acid, mg KOH/g, ASTM D2896 (*) | 6.8   |

(\*) use of other ASTM approved solvents may yield different results

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

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