



Cetus PAG

Premium performance PAG based synthetic compressor oil

(formerly known as LPG Compressor Oil)

Product description

Cetus PAG is a premium performance synthetic gas compressor lubricant formulated with Polyalkylene glycol and designed for use in enclosed pattern gas compressors where the crankcase and bearings operate in a hydrocarbon or chemical gas-filled atmosphere.

Cetus PAG is designed to maintain a high level of insolubility in this gas-filled environment helping avoid dilution and the significant drop in oil viscosity and lubricant protection this can cause, making it suitable for marine service on vessels carrying specialist liquefied gas cargoes.

Customer benefits

- Helps minimise gas solubility in hydrocarbon and chemical gas-filled atmospheres, promoting improved compressor wear protection
- Robust formulation offering reliable, extended lubricant service life
- Helps deliver improved gas compressor operating efficiency and reduced foaming
- Designed for multi-gas service across a wide range of gases including vinyl chloride and butadiene
- Formulated to resist the dimerisation of butadiene and to prevent the generation of solid deposits
- Suitable for marine service on vessels carrying specialist liquefied gas cargoes

Product highlights

- **Helps minimise gas solubility**
- **Offers extended service life**
- **Designed for compressor operating efficiency**
- **Provides multi-gas service**
- **Formulated to resist dimerisation**
- **Suitable for specialist marine gas cargoes**

Selected specification standards include:

Howden Compressors	Linde
Sulzer Burckhardt AG	US Environmental Protection Agency
Winterthur	

Applications

Cetus PAG is a high performance synthetic gas compressor lubricant, designed for enclosed pattern gas compressors for hydrocarbon and chemical gases, where the crankcase and bearings operate in a gas-filled atmosphere. Under these conditions the gas is readily soluble in mineral oil lubricants which, on dilution, suffer a significant drop in viscosity and lubricant performance. This problem can be overcome by using Cetus PAG in which the gases are much less soluble. It is particularly suitable for marine service on vessels carrying specialist liquefied gas cargoes.

Cetus PAG is used for the following gases:

- liquefied petroleum gases such as propane and butane
- liquefied natural gases such as methane and ethane
- hydrocarbon chemical gases such as ethylene, propylene and butylene
- chemical gases such as vinyl chloride, ammonia, butadiene

Cetus PAG is particularly suitable for marine service on vessels carrying specialist liquefied gas cargoes

Cetus PAG demonstrates some water and sulphide tolerance in pipeline compressor applications. The oil tolerates up to 4% water before hazing at 80 °C, and has been evaluated for corrosion resistance with 2.5% water

Cetus PAG does not affect common seal and gasket materials such as Nitrile Rubber (NBR) and fluorosilicones

Cetus PAG softens ordinary industrial paints. Two pack epoxy formulations are normally resistant

Product maintenance and handling

- Cetus PAG should not be mixed with mineral oils

Approvals, performance and recommendations

Approvals

- VGP Compliant and listed by the US Environmental Protection Agency as approved Environmentally Acceptable Lubricants

Performance

- Cetus PAG meets the performance requirements of Linde for general service gas compression including ammonia, vinyl chloride and butadiene
- Cetus PAG meets the requirements of Sulzer Burckhardt AG, Winterthur for use in their K-type gas cargo compressors for general LPG/LNG service and for ammonia, vinyl chloride, butadiene
- Cetus PAG meets the requirements of Howden Compressors Ltd, for use in refrigeration compressors operating with propane and propylene at discharge pressures exceeding 7 kg/cm²
- Cetus PAG remains approved and listed under the old name of LPG Compressor Oil

Typical test data		
Test	Test Methods	Results
Shelf Life: 60 months from date of filling indicated on the product label.		
Kinematic viscosity at 40°C, mm ² /s	ASTM D445	185
Kinematic viscosity at 100°C, mm ² /s	ASTM D445	35
VI	ISO 2909	238
Flash Point, °C	ASTM D92	260
Pour Point, °C	ASTM D97	-30
Density at 15°C, kg/l	ASTM D1298	1.057
Foam Seq I, ml (with air)	ASTM D892	45/10
Foam Seq II, ml (with air)	ASTM D892	140/20
Foam Seq III, ml (with air)	ASTM D892	100/0
Foam Seq I, ml (with propane)	ASTM D892	35/10
Foam Seq II, ml (with propane)	ASTM D892	70/20
Rust Test, Proc A	ASTM D665A	Pass
FZG, Failure load Stage A/8.3/90	ASTM D5182	>12
Steel and Aluminium Corrosion	DIN 51 355 Test A	0
Vapour pressure at 100°C, mm Hg	—	1.10 ⁻⁵
Specific Heat at 50°C, kJ/kg K	—	1.92
Specific Heat at 100°C, kJ/kg K	—	2.10
Specific Heat at 150°C, kJ/kg K	—	2.25
Biodegradability,%	OECD 301B	>60

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

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Health, safety, storage and environmental Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDS's are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.

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