



Cetus[®] PAO

Synthetic Air Compressor Oils

Product Data Sheet

Customer benefits

- **Extended oil service life**
Outstanding oxidation stability of the polyalphaolefin base fluid and inhibitor system resists oil breakdown at the elevated temperatures encountered in compressor service, permitting oil drain intervals to be extended beyond those achieved with conventional lubricants.
- **Protects equipment**
Polyalphaolefin base fluid helps to provide an effective oil film to protect highly loaded parts against wear under high temperature operating conditions, as well as during low temperature start-up. Effective inhibitor system provides excellent rust and corrosion protection. Anti-wear additive minimizes wear under severe operating conditions.
- **Smooth operation**
Outstanding thermal and oxidation stability enables the polyalphaolefin lubricant to resist deposit formation in the heat of the compression cycle, even under severe service conditions.
- **Extended range of applications**
High viscosity index and low pour point of the polyalphaolefin base fluid permits application in a wider range of ambient operating temperatures compared with conventional lubricants.

Applications

- Flooded screw compressors
- Rotary air compressors
- Reciprocating air compressors
- Medium-speed marine diesel engine turbochargers

Not recommended for use in breathing air compressors.

Product features:

- Cetus[®] PAO oil is a premium performance, synthetic compressor oil based on polyalphaolefin technology.
- Cetus[®] PAO contains a rust and oxidation inhibitor system plus anti-wear additives to provide outstanding oxidation resistance and corrosion protection.
- Cetus[®] PAO minimizes wear under severe operating conditions.

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Performance standards

- meets DIN 51506 VDL
- Approval for ABB VTR.4 turbochargers. Fulfills the requirements as low friction lubricant for a 5,000 hour drain interval (ISO 68).

Typical Key Properties

CETUS PAO				
TEST	TEST METHOD	RESULTS		
ISO Grade		32	46	68
Product Code		540539	540536	540537
Flash Point, COC, °C	ASTM D92	230	250	240
Pour Point, °C	ASTM D97	-46	-57	-52
Viscosity,				
mm ² /s @ 40°C	ASTM D445	32	46	68
mm ² /s @ 100°C	ASTM D445	6.12	7.7	10.4
Viscosity Index	ASTM D2270	134	136	141

CETUS PAO				
TEST	TEST METHOD	RESULTS		
ISO Grade		100	150	
Product Code		540538	540544	
Flash Point, COC, °C	ASTM D92	260	266	
Pour Point, °C	ASTM D97	-50	-50	
Viscosity,				
mm ² /s @ 40°C	ASTM D445	100	150	
mm ² /s @ 100°C	ASTM D445	19	19	
Viscosity Index	ASTM D2270	142	145	



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continued

Service considerations

Cetus PAO is designed to meet the requirements of modern higher output, more efficient compressors, particularly flooded screw air compressors. In flooded screw compressors, as well as some other rotary air compressors, the lubricant is subjected to the high temperatures produced by compression whilst also being mixed with the air being compressed. The higher temperatures encountered in rotary air compressors and the mixture of the air with the lubricant within the compressor means that oxidation of the lubricant significantly reduces the useful life of mineral oil based compressor lubricants. Cetus PAO is specifically formulated to provide excellent oxidation resistance under the conditions encountered in flooded rotary air compressors, i.e. high temperatures and exposure to the compressed air.

Cetus PAO is compatible with conventionally formulated mineral oil based and diester based lubricants, although excessive dilution with petroleum product will reduce the thermal and oxidation stability of the synthetic polyalphaolefin lubricant. Close monitoring of the compressor lubricant is advised after conversion from a mineral oil based lubricant. It is expected that non-metallic components used for mineral oil based lubricated equipment will be compatible with Cetus PAO, however where doubt exists the equipment manufacturer should be consulted concerning compatibility with polyalphaolefin based lubricants.

Cetus PAO is not compatible with polyalkylene glycol or silicone based compressor lubricants, nor is it recommended for the compression of hydrocarbon gases.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by Chevron Lubricants; Africa, Middle East and Pakistan.

Environment, Health and Safety Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit www.caltexoils.com.

For more information, go to www.chevronlubricants.com