



**BOCA
BEARING**

Miniature Bearings For Industry, Hobby & Recreation

www.bocabearings.com

Product Data

HIGH SPEED OIL (HS OIL)

Low Volatility, Aircraft Instrument
Lubricating Oil

Description

HS OIL is a diester based synthetic oil with additives which impart corrosion protection, minimize galvanic corrosion, inhibit oxidation, and reduce foaming tendencies. It has exceptionally low volatility and good viscosity temperature characteristics.

Uses

HS OIL is intended for use in aircraft instruments, electronic equipment, or in applications where an oil with a low evaporation rate is required for both high and low temperature operation. Also in applications where lubrication which provides oxidation and corrosion resistance is desirable. It is designed to operate over the temperature range -65°F to 250°F (-54°C to 121°C).

Limitations

HS OIL may adversely affect certain paints, elastomers, and other organic materials. Customers should determine the compatibility of existing components with synthetic diester based oil and make any changes as required to accommodate use of this fluid in their application.

Shelf Life

HS OIL has a maximum recommended shelf life of 6 years from date of manufacture. This shelf life assumes that the product is stored in its original unopened packaging in ambient temperature conditions.

Specifications

HS OIL meets all the requirements of and is qualified to MIL-PRF-6085D. It is specified as a P-17 preservative under packaging Specification MIL-STD-2073-1. This fluid is identified by NATO Code: O-147.

HIGH SPEED OIL (HS OIL)

TYPICAL PROPERTIES

TEST METHOD	DESCRIPTION	MIL-PRF-6085D REQUIREMENTS	RESULT
D 287	API Gravity @ 16°C		21.6
Table 3	Specific Gravity @ 16/16°C (60/60°F)		0.924
Table 8	Pounds per Gallon @ 16°C (60°F)		7.7
D 1500	Color, ASTM	5 Maximum	<2.0
D 445	Viscosity, cSt @ 54°C (130°F) @ -54°C (-65°F)	8 Minimum 12,000 Maximum	8.96 10,900
D 97	Pour Point, °C (°F)	-57 (-70) Maximum	<-57 (<-70)
D 92	Flash Point, COC, °C (°F)	185 (365) Minimum	226 (439)
D 974	Acid Number, mg KOH/gm	Report	0.11
D 91	Precipitation No., ml	0	0
D 972	Evaporation Loss, % wt 22 hrs @ 120°C (248°F)	1.80 Maximum	0.38
Spec 4.4.5	Low Temperature Stability 72 hrs @ -54°C (-65°F)	No gelling or separation	Pass
Spec 3.7	Workmanship	Pass	Pass
D 4636	Corrosion-Oxidation Stability 168 hrs @ 121°C (250°F) Corrosion, Pitting, Etching Wt. change, mg/cm ² Copper Steel Aluminum Magnesium Cadmium Viscosity Change, 54°C (130°F), % Neutralization No. Change, mg KOH/gm No evidence or separation or gumming	None 0.2 Maximum 0.2 Maximum 0.2 Maximum 0.2 Maximum 0.2 Maximum -5 to +5 0.5 Maximum Pass	None 0.006 0.005 0.011 0.006 -0.0048 0.337 0.05 Pass

Health, safety and environmental information are provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products. User accepts all risks and liabilities if the product is used other than in the manner, with the precautions, or for the purpose(s) specified. Before using the product other than directed, please **contact BOCA BEARINGS**.

Revised: June 15, 2006