

# TRIBOLUBE<sup>®</sup> F-169

## Synthetic Perfluoro Polyether Lubricant

### CHARACTERISTICS

**TRIBOLUBE F-169** Perfluoropolyether oil is high performance oil designed for applications in harsh environments where non-reactivity with strong oxidizers, insolubility in solvents, radiation resistance, and has an operating temperature of -100°F to 350°F. Tribolube F-169 oil has an excellent viscosity index and low temperature properties.

### APPLICATIONS

**Tribolube F-169** is an excellent lubricant for high speed precision bearings and electrical contacts and is insoluble in most organic solvents, but is soluble in highly fluorinated solvents. It is compatible with most plastics, elastomers and metals under normal operating temperatures. Although newly exposed surfaces of aluminum, titanium and magnesium under certain conditions may cause depolymerization of perfluoroether oils.

PERFORMANCE TEST	TEST METHOD	CONDITION	TYPICAL VALUES
Specific Gravity	Mohr Westphal	60 °F	1.82± 0.05g/cc
Viscosity index	ASTM-D-2270		317
Pour point	ASTM-D-97		-90 °C
Kinematic viscosity	ASTM-D-445	@ -60 °C	2,598 cSt
		@ -40 °C	509 cSt
		@ 20 °C	30 cSt
		@ 40 °C	18 cSt
		@ 100 °C	5 cSt
Evaporation Weight Loss	ASTM-D-2595	@ 149 °C, 22 hr.	6.0%
		@ 204 °C, 22 hr.	NA
Vapor Pressure Knudsen	Knudsen	@ 20 °C	6.4 x 10 <sup>-6</sup>
		@ 100 °C	8 x 10 <sup>-5</sup>
		@ 140 °C	1.9 x 10 <sup>-4</sup>
Load Wear Index	ASTM-D-2596	Init. Seiz. load	355 kg
		Welding load	450 kg
		Mean hertz load	104
Four Ball Wear Test	ASTM-D-4172B	Avg. scar diameter	0.60 mm
Surface Tension	DuNouy Tensionmeter	@ 68 °F	23 dynes/cm
Flash & Fire Point	ASTM-D-92-66		None
Refractive Index	ASTM-D-1218	@ 68 °F	1.294
Copper Corrosion	FED-STD-791 Method 5309	24 hrs @ 212°F	1a, No stain

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