



Order Toll Free: 800 533-5823

Product Information

PSF-20cSt Low Viscosity Down-Hole Silicone Fluid

Operating Temperature Range: -50°C to 220°C (closed system)



PSF-20cSt Down-Hole Silicone Fluid is a durable low viscosity fluid that can withstand high temps and extreme pressures in the harshest Downhole environments.

PSF-20cSt Low Viscosity Down-Hole Silicone Fluid is a clear, colorless and odorless linear Polydimethylsiloxane (CAS No. 63148-62-9) with a viscosity of 20cSt @ 25°C.

PSF-20cSt Low Viscosity Down-Hole Silicone Fluid is an excellent low viscosity fluid for the ever harsher environments in the Downhole Oil and Gas Industries. It is characterized by its low pour point, wide service temperature range, high compressibility, stability at extremely high pressures, low viscosity change at temperature (low V.T.C.), low surface tension, high dielectric strength, long service life, and hydrophobic nature (insoluble in water).

Unlike conventional fluids like mineral oil, PSF-20cSt will not coagulate under pressure. Even at high pressures of 4,000MPa, the fluid will not solidify.

PSF-20cSt is widely used as a heat transfer medium. It has a Thermal Conductivity value of 0.00034 g/cal/cm/sec °C & a specific heat value is 1.6 (J/g °C)

Silicone Fluids are widely used as damping fluids due to their inertness and low viscosity change over a wide temperature range. **PSF-20cSt Silicone Heat Transfer Fluid** has a low viscosity-temperature coefficient. Its viscosity will not significantly increase even at extremely low temperatures. For example, at -40°C, its viscosity increases to only 125cSt. This is critical for systems that cannot pump or circulate higher viscosity fluids.

*Closed system baths are systems from which air has been excluded

Specifications

Chemical Name	Polydimethylsiloxane
CAS #	63148-62-9
Appearance	Clear, colorless liquid
Viscosity Class	Low
Non-Flammable	Yes
Thermally Stable	Yes

Features

- 100% silicone fluid
- Non-Flammable
- Excellent Low & Medium Temp Serviceability
- Stable at extreme pressures
- Hydrophobic – insoluble with water
- Compatible with virtually all o-rings, gaskets, hoses, valves and seals*
- Chemically Inert
- Low Service Temperature Range
- Clear, Colorless, Odorless
- Low V.T.C...viscosity remains low even at very low temps
- Low Pour Point: -65°C
- Flash Point: 232°C
- High Resistance to Oxidation

*Not recommended for silicone o-rings...may cause swelling.

Viscosity @ temperature

Viscosity-Temperature-coefficient...0.59
 Viscosity @ 25°C.....20cSt (centistokes)
 Viscosity @ 0°C.....35cSt
 Viscosity @ -20°C.....60cSt
 Viscosity @ -40°C.....125cSt

Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point	Boiling Point	Surface Tension	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Thermal Expansion cc/cc °C	Specific Heat @ 25°C J/g °C
0.950	1.4000	-65°C	232°C	>200 °C	20.6	0.00034	0.00107	1.6

Typical Product Data (cont'd)

Volume Resistivity	Molecular weight	Dielectric constant 50Hz	Dielectric strength volts/mil
≥1	2,000	2.72	375

Packaging

1-gallon.....3.6kg
 5-gallon pail.....18kg
 55-gallon drum.....190kg

F.O.B. Phila, PA U.S.A.

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