



PSF-50cSt Silicone Heat Transfer Fluid

Operating Temperature Range: -40°C to 170°C (open system) / -40°C to 230°C (closed system)



Pure Silicone Fluid 50cSt Heat Transfer Fluid offers high thermal stability for open/closed system baths and heat transfer applications.

PSF-50cSt Silicone Heat Transfer Fluid is a clear, colorless and odorless linear Polydimethylsiloxane that is formulated for use as a cold and heat transfer medium in a wide range of applications. **PSF-50cSt Silicone Heat Transfer Fluid** has an operating service temperature range of -40°C to 220°C (closed system*).

PSF-50cSt Silicone Heat Transfer Fluid is characterized by its low pour points, wide service temperature range, high flash point, low viscosity change at temperature (low V.T.C.), low surface tension, long service life, and hydrophobic nature (insoluble in water).

PSF-50cSt Silicone Heat Transfer Fluid has a Thermal Conductivity value of 0.00036 g/cal/cm/sec °C. Its specific heat value is 1.5 (J/g °C).

PSF-50cSt Silicone Heat Transfer Fluid has a low viscosity-temperature coefficient or V.T.C. (viscosity @99°C ÷viscosity @ 38°C). Thus, it will not exhibit a wide viscosity increase at lower temperatures. For example, at -40°C, its viscosity increases to approx. 320cSt. This is critical for baths that have pumping systems that cannot operate with higher viscosity fluids. However, if lower viscosities are required at low temps, we provide a line of low temperature fluids.

Applications include: heat transfer systems, closed system baths, constant temperature baths, circulating baths, low temperature refrigerated baths, closed loop baths, heat transfer baths

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

Specifications

Product Code	PSF-50cSt
Chemical Name	Polydimethylsiloxane
CAS #	63148-62-9
Appearance	Clear, colorless liquid
Viscosity Class	Low
Non-Flammable	Yes
Thermally Stable	Yes
Availability	1 – 5 – 55 gallon drums
Minimum Order	1-gallon (3.785 liters)

Viscosity/Temp Data

Viscosity-Temperature Coefficient.....0.59

Viscosity @ temperature
 @ 170°C.....9cSt
 @ 100°C.....17cSt
 @ 25°C.....50cSt
 @ 0°C.....80cSt
 @ -40°C.....240cSt

Features

- 100% polydimethylsiloxane (silicone fluid)
- Viscosity: 50cSt @ 25°C
- Non-Flammable
- High Thermal Stability
- Wide operating temperature range
- Hydrophobic – insoluble with water
- Compatible with virtually all o-rings, gaskets, hoses, valves
- Chemically Inert
- Clear, Colorless, Odorless
- Low V.T.C: 0.59
- Low Vapor pressure
- Low Pour Point: -55°C
- Flash Point: 285°C
- High Resistance to Oxidation

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

Packaging

1-gallon.....	3.6kg
5-gallon pail.....	18kg
4 x 5-gallon pails	
55-gallon drum.....	200kg
Terms F.O.B. Phila, PA	

Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point	Surface Tension dynes cm @ 25°C	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Thermal Expansion cc/cc °C	Specific Heat @ 25°C J/g °C
0.960	1.4015	-55°C	285°C	20.8	0.00036	0.00106	1.5

Typical Product Data

Dielectric Constant 50Hz	Dielectric Strength volts/mil	Molecular weight
2.75	400	3,780

For More Information, Contact:

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