



## Product Information

# PSF-10cSt Silicone Heat Transfer Fluid

**Operating Temperature Range: -60°C to 200°C (closed system)**



*PSF-10cSt Silicone Heat Transfer Fluid is an excellent choice for systems that require a low viscosity fluid and a wide service temperature range.*

**PSF-10cSt Silicone Heat Transfer Fluid** is a clear, colorless and odorless low-viscosity linear Polydimethylsiloxane (CAS No. 63148-62-9) that is formulated as a cold and heat transfer medium in a wide range of applications. **PSF-10cSt Low Temperature Silicone Bath Fluid** has an operating service temperature range of -60°C to 150°C (closed system\*).

**PSF-10cSt Silicone Heat Transfer Fluid** is characterized by its low pour points, low temperature stability, wide service temperature range, low viscosity change at temperature (low V.T.C.), low surface tension, long service life, and hydrophobic nature (insoluble in water).

**PSF-10cSt Silicone Heat Transfer Fluid** has a Thermal Conductivity value of 0.00032 g/cal/cm/sec °C. Its specific heat value is 0.360 cal/g/°C @ 25°C.

**PSF-10cSt Silicone Heat Transfer Fluid** has a low viscosity-temperature coefficient or V.T.C. (viscosity @99°C ÷ viscosity @ 38°C). The lower the VTC, the lower the viscosity changes at temperature. Thus, its viscosity will not significantly increase even at extremely low temperatures. For example, at -40°C, its viscosity increases to only 75cSt. This is critical for baths that have pumping systems that cannot operate with higher viscosity fluids.

Applications include: low temperature heat transfer systems, heat transfer baths, heat transfer fluid in freeze drying equipment, calibration bath fluids for low temperature, low temperature closed system baths, low temperature constant temperature baths, low temperature circulating baths, low temperature circulator baths, low temperature refrigerated baths, low temperature closed loop baths,

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

### Specifications

Chemical Family	Silicone
Chemical Name	Polydimethylsiloxane
CAS#	63148-62-9
Appearance	Clear, colorless, odorless
Non-Flammable	Yes
Thermally Stable	Yes
Availability	1 - 5 - 55 gallon drums
Minimum Order	1-gallon

### Features

- 100% silicone fluid
- Non-Flammable
- Excellent Low & Medium Temp Serviceability
- Hydrophobic – insoluble with water
- Compatible with all o-rings, gaskets, hoses, valves and seals\*
- Chemically Inert
- High Spreadability
- Clear, Colorless, Odorless
- Low V.T.C...0.56
- Low Vapor pressure
- Low Pour Point: -70°C
- Flash Point: 211°C
- High Resistance to Oxidation

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

### Viscosity @ temperature

Viscosity-Temperature-coefficient...0.56

Viscosity @ 25°C.....10cSt  
(centistokes)

Viscosity @ 0°C.....17cSt

Viscosity @ -20°C.....30cSt

Viscosity @ -40°C.....75cSt

### Packaging

1-gallon.....3.52kg  
5-gallon pail.....17.6kg

55-gallon drum.....190kg  
F.O.B. Phila, PA U.S.A.

### Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point (closed cup)	Boiling Point	Surface Tension dynes cm @ 25°C	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Thermal Expansion cc/cc °C	Volatile content @ 25°C	Specific Heat @ 25°C cal/g °C
0.935	1.3990	-70°C	163°C	>200 °C	20.1	0.00032	0.00108	0.68%	0.360

### Typical Product Data (cont'd)

Volume Resistivity	Molecular weight	Dielectric constant 50Hz	Dielectric strength volts/mil
≥1	1,250	2.68	375

### For More Information, Contact:

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