



## PSF-3cSt Silicone Heat Transfer Fluid

**Operating Temperature Range: -50°C to 150°C (closed system)**



PSF-3cSt Silicone Heat Transfer Fluid is a low viscosity heat transfer medium that offers a wide service temperature range.

**PSF-3cSt 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-3cSt Silicone Heat Transfer Fluid** has an operating service temperature range of -50°C to 150°C (closed system\*).

**PSF-3cSt 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, high dielectric strength, long service life, and hydrophobic nature (insoluble in water).

**PSF-3cSt Silicone Heat Transfer Fluid** has a Thermal Conductivity value of 0.00027 g/cal/cm/sec °C. Its specific heat value is 1.64 (J/g · K)

**PSF-5cSt 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 the lower temperatures. For example, at -40°C, its viscosity increases to only 13cSt. 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, heat transfer medium in lyophilization thermostats and cryostat fluids, 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

Product code	PSF-3cSt
Chemical Name	Linear Polydimethylsiloxane
CAS #	63148-62-9
Appearance	Clear, colorless, odorless fluid
Viscosity Class	Low

### Viscosity @ temperature

Viscosity-Temperature-coefficient...	0.51
Viscosity @ 25°C.....	3cSt (centistokes)
Viscosity @ 0°C.....	4cSt
Viscosity @ -20°C.....	7cSt
Viscosity @ -40°C.....	13cSt

### Features

- 100% Linear Polydimethylsiloxane Fluid
- Low viscosity: 3cSt @ 25°C
- Excellent Low Temp Serviceability
- Hydrophobic – insoluble with water
- Compatible with virtually all o-rings, gaskets, hoses, valves and seals\*
- Chemically Inert
- Low Viscosity-temp-coefficient (V.T.C)... 0.51
- Low Vapor pressure
- Low Service temperature range of -50°C
- Low Pour Point: -70°C
- Flash Point: 100°C
- High Resistance to Oxidation
- VOC Exempt

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

### Packaging

1-gallon pail .....	3.38kg
5-gallon pail.....	16.9kg
4 x 5-gallon pails	
55-gallon drum.....	170kg
F.O.B. Phila, PA	

### Typical Product Data

Viscosity	Specific Gravity	Viscosity-Temp Coefficient	Flash Point	Pour Point	Refractive Index	Thermal Expansion cc/cc/ °C	Thermal Conductivity g/cal/cm/sec °C	Surface Tension	Dielectric Constant	Dielectric Strength
3cSt	0.898	0.51	100°C	-70°C	1.3935	0.00114	0.00027	19.2	2.50	350

### Typical Product Data (cont'd)

Boiling Point	Vapor Density (air = 1)	Vapor Pressure @ 25°C	Molecular weight
>200°C	NA	Not determined	550

### Clearco Products Co., Inc.

3430 G. Progress Drive  
 Bensalem, PA 19020  
 Tel: 215 639-2640  
 Fax: 215 639-2919

Email: [info@clearcoproducts.com](mailto:info@clearcoproducts.com)  
 Web: [www.clearcoproducts.com](http://www.clearcoproducts.com)