



## PSF-10cSt Silicone Bath Fluid



### Product Information

**Operating Temperature Range: -60°C to 100°C (open system) / -60°C to 200°C (closed system)**



Pure Silicone Fluid 10cSt Low Temperature Bath Fluid has a service operating temperature of -60°C to 150°C closed system.

**PSF-10cSt Silicone Bath Fluid** is a low-viscosity linear Polydimethylsiloxane (CAS # 63148-62-9) that is clear, colorless, odorless and inert to virtually all bath instrumentation and plastics. It is formulated for use as a low and medium temperature baths fluid and a low and medium temperature heat transfer fluid.

In **open system** baths, **PSF-10cSt Silicone Bath Fluid** has an operating service temperature range of -60°C to 100°C. In **closed system\***, the operating temperature range is wider due to the absence of air. The closed operating range is -60°C to 200°C

**PSF-10cSt Silicone Bath 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.

Bath Applications include: low temperature open system baths, low temperature closed system baths, low temperature constant temperature baths, circulating baths, low temperature refrigerated baths, calibration fluids, closed loop baths, heat transfer baths.

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

### Specifications

Product Code	PSF-5cSt
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 (3.785 liters)

### 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
4 x 5-gallon pails	
55-gallon drum.....	180kg

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### Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point (closed cup)	Surface Tension dynes cm @ 25°C	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Thermal Expansion cc/cc °C	Volatile content @ 70°C	Specific Heat @ 25°C cal/g °C
0.935	1.3990	-70°C	163°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:

**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)