



## Pure Silicone Fluid 10cSt Low Temperature Bath Fluid



## Product Information

**Operating Temperature Range: -60°C to 100°C (open system) / -60°C to 150°C (closed system)**



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

Clearco **Pure Silicone Fluid 10cSt Low Temperature 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 Low Temperature 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 150°C

PSF-10cSt Low Temperature 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

<b>Chemical Family</b>	Silicone
<b>Chemical Name</b>	Polydimethylsiloxane
<b>CAS#</b>	63148-62-9
<b>Appearance</b>	Clear, colorless, odorless
<b>Non-Flammable</b>	Yes
<b>Thermally Stable</b>	Yes
<b>Availability</b>	1 – 5 – 55 gallon drums
<b>Minimum Order</b>	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: 163°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 .....	3.45kg
5-gallon.....	17.2kg
55-gallon drum.....	190kg
Terms F.O.B. Phila, PA	

### Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point	Surface Tension Dynes cm @ 25C	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Coeff of Thermal Expansion Cc/cc/C, 0 –150C	Volatile content @ 70°C	Specific Heat @ 25°C
0.935	1.3990	-70°C	163°C	20.1	0.00032	0.00108	0.68%	0.360

### Typical Product Data (cont'd)

Viscosity-Temperature Coefficient	Coefficient of Expansion x 10 <sup>-4</sup>
0.56	10.8

### 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)