



# Product Information

## PSF-10cSt Silicone Bath Fluid

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



PSF-10cSt Low Temperature Bath Fluid has a service operating temperature of -60°C to 200°C closed system.

PSF-10cSt Silicone Bath Fluid is linear Polydimethylsiloxane (CAS # 63148-62-9) with a viscosity of 10cSt @ 25c. The fluid is clear, colorless and odorless.

PSF-10cSt Silicone Bath Fluid is characterized by its low viscosity, low pour point, wide service temp range, low viscosity increase at low temperature, high dielectric strength and inertness to virtually all bath components.

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.

### Specifications

Product Code	PSF-10cSt
Chemical Family	Silicone
Chemical Name	Polydimethylsiloxane / PDMS Silicone Oil
CAS No.	63148-62-9
Appearance	Clear, colorless, odorless
Non-Flammable	Yes
Minimum Order	1-gallon (3.785 liters)

### Features

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

### Viscosity @ temperature

Viscosity-Temperature-coefficient.....	0.56
Viscosity @ 25°C.....	10cSt
Viscosity @ 0°C.....	17cSt
Viscosity @ -20°C.....	30cSt
Viscosity @ -40°C.....	75cSt

### Packaging

1-gallon.....	3.52kg net wt.
5-gallon pail.....	17.6kg net wt.
55-gallon drum.....	190kg net wt.

F.O.B. Phila, PA U.S.A.

### 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	Dielectric constant 50Hz	Dielectric strength volts/mil
≥1	2.68	375

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