



## Product Information

# PSF-50cSt Silicone Bath Fluid

Operating Temperature Range: -40°C to 170°C (open system) / -40C to 230°C (closed system)



PSF- 50cSt Silicone Bath Fluid offers high thermal stability for open/closed system baths and heat transfer applications.

**PSF-50cSt Silicone Bath Fluid** is linear Polydimethylsiloxane fluid (CAS # 63148-62-9) with a viscosity of 50cSt (centistokes) @ 25C. PSF-50cSt Bath Fluid is clear, colorless, odorless and odorless fluid that is inert to bath instrumentation and virtually all plastics.

**PSF-50cSt Silicone Bath Fluid** is characterized by its high flash point, wide service temperature range, low vapor pressure and high resistance to oxidation. It is widely used as a baths fluid and heat transfer fluid for baths that require a wide service temperature range.

In open system baths, PSF-50cSt Medium Temperature Silicone Bath Fluid has an operating temperature range of -40°C to 170°C. At 150°C (open), PSF-50cSt will remain stable for approximately 1-year. In closed system\*, the operating temperature range is wider due to the absence of air. The closed system operating range is -40°C to 230°C.

**PSF-50cSt Silicone Bath 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 lower temperatures. For example, at -40°C, its viscosity increases to approx. 320cSt. This is critical for baths that have pumping systems that cannot operate with higher viscosity fluids.

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

### Specifications

Product Code	PSF-50cSt
Chemical Name	Polydimethylsiloxane / PDMS Silicone
CAS #	63148-62-9
Appearance	Clear, colorless liquid
Non-Flammable	Yes
Thermally Stable	Yes
Minimum Order	1-gallon (3.785 liters)

### Viscosity to Temp Info:

Viscosity-Temperature Coefficient.....	0.59
Viscosity @ temperature	
@ 170°C.....	9cSt
@ 100°C.....	17cSt
@ 25°C.....	50cSt
@ 0°C.....	80cSt
@ -40°C.....	240cSt

### Features

- 100% Polydimethylsiloxane / PDMS
- Viscosity: 50cSt @ 25°C
- High Thermal Stability
- Wide operating temperature range
- Hydrophobic: insoluble with water
- Compatible with virtually all O-rings, gaskets, hoses, valves
- Chemically Inert
- Clear, Colorless, Odorless
- Low V.T.C: 0.59
- Low Vapor pressure
- Low Pour Point: -55°C
- Flash Point: 285°C
- High Resistance to Oxidation

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

### Packaging

1-gallon.....	3.6kg net wt.
5-gallon pail.....	18kg net wt.
55-gallon drum.....	200kg net wt.

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

### Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point	Boiling Point	Surface Tension dynes cm@ 25°C	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Thermal Expansion cc/cc °C	Maximum volatile content @ 150°C, wt loss, 24 hrs	Specific Heat @ 25°C cal/g °C
0.960	1.4015	-55°C	285°C	> 250 °C	20.8	0.00036	0.00106	0.5%	0.360

### Typical Product Data

Dielectric Constant 50Hz	Dielectric Strength volts/mil	Molecular weight
2.75	400	3,780

### For More Info, Contact: Clearco Products Co., Inc.

15 York Road  
Willow Grove, PA 19090  
U.S.A.

Tel: (215) 366-7860

Fax: (215) 366-7862

Email: [info@clearcoproducts.com](mailto:info@clearcoproducts.com)

Web: [www.clearcoproducts.com](http://www.clearcoproducts.com)