



PSF-50cSt Silicone Bath Fluid

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



Pure Silicone Fluid 50cSt 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. Characterized by its high flash point, high service temperature range, low vapor pressure and high resistance to oxidation, **PSF-50cSt Bath Fluid** is strongly recommended for use 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, 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. However, if lower viscosities are required at low temps, we provide a line of low temperature fluids.

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

Specifications

Product Code	PSF-50cSt
Chemical Name	Polydimethylsiloxane
CAS #	63148-62-9
Appearance	Clear, colorless liquid
Viscosity Class	Low
Non-Flammable	Yes
Thermally Stable	Yes
Availability	1 – 5 – 55 gallon drums
Minimum Order	1-gallon

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 (silicone fluid)
- Viscosity: 50cSt @ 25°C
- Non-Flammable
- 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
5-gallon pail.....	18kg
4 x 5-gallon pails	
55-gallon drum.....	200kg
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 Information, Contact:

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