



Pure Silicone Fluid 50cSt Medium Temperature Bath Fluid

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



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

Pure Silicone Fluid 50cSt Medium Temperature Bath Fluid is a medium-viscosity linear Polydimethylsiloxane (CAS # 63148-62-9) that is clear, colorless, odorless and 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 is strongly recommended for use as a baths fluid and heat transfer fluid 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 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 the 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

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

Typical Product Data (cont'd)

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.

Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point	Surface Tension Dynes/cm @ 25°C	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Coeff of Thermal Expansion Cc/cc/C, 0 –150C	Maximum Volatile content @ 150°C, wt loss, 24 hrs	Specific Heat @ 25°C
0.960	1.4015	-55°C	285°C	20.8	0.00034	0.00106	0.5%	0.360

Packaging

1-gallon.....	3.6kg
5-gallon pail.....	18kg
55-gallon drum.....	200kg
Terms F.O.B. Phila, PA	

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
 Web: www.clearcoproducts.com