



Pure Silicone Fluid 10cSt Low Temperature Bath Fluid



Product Information

Operating Temperature Range: -50°C to 100°C (open system) / -50°C to 150°C (closed system)



Pure Silicone Fluid 10cSt Low Temperature Bath Fluid has a service operating temperature of -50°C.

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 -50°C to 100°C. In **closed system***, the operating temperature range is wider due to the absence of air. The closed operating range is -50°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

Chemical Family	Silicone
Chemical Name	Polydimethylsiloxane
CAS#	63148-62-9
Appearance	Clear, colorless, odorless
Non-Flammable	Yes
Thermally Stable	Yes
Availability	1 - 5 - 55 gallon drums
Minimum Order	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: -65°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	-65°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 ⁻⁴
0.56	10.8

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