



Product Information

Pure Silicone Fluid 1.5cst Low Temperature Bath Fluid

Operating Temperature Range: -70°C to 50°C closed system only



Pure Silicone Fluid 1.5cst Low Temperature Bath Fluid has a service temperature range of -70°C to 50°C (closed system only)

Pure Silicone 1.5cSt Low Temperature Bath Fluid is a clear, colorless and odorless low-viscosity linear Polydimethylsiloxane that is formulated for Low Temperature Baths and Low Temperature Heat Transfer Applications.

In closed system baths, PSF-1.5cSt Low Temperature Bath Fluid has an operating service temperature range of -70°C to 50°C. Due to its low flash point and high volatility, PSF-1.5cSt is not recommended for open bath systems. Fast rate of evaporation will require frequent replenishment of the fluid.

PSF-1.5cSt has a low viscosity-temperature coefficient or VTC (viscosity @99°C ÷viscosity @ 38°C). The lower the VTC, the lower the viscosity at lower temps. Thus, its viscosity will not increase significantly even at extremely low temperatures. For example, at -40°C, the viscosity of PSF-1.5cSt is only 6cSt. This is critical for baths that have pumping systems that cannot operate with higher viscosity fluids.

Bath Applications include: low temperature closed system baths, low temp constant temperature baths, low temp circulating baths, refrigerated baths, closed loop baths, low temperature heat transfer baths, low viscosity calibration fluid, heat transfer fluid in freeze drying equipment, fluid for thermostats, gauges and calibration equipment.

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

Features

Super low viscosity – provides excellent low temperature pump-ability
Clear, colorless and odorless fluid – easy to see instruments inside of the bath
Excellent Low Temperature Serviceability
Low Temperature heat transfer fluid
VOC Exempt
High Compressibility
High Oxidation Resistance
Insoluble in water
Compatible with virtually all o-rings, gaskets, valves and seals *

*Not recommended for silicone o-rings where the fluid may cause swelling

Viscosity/Temperature

Viscosity-Temp Coefficient (V.T.C.)..... 0.46

Viscosity @25°C..... 1.5cSt

Viscosity
@25°C..... 1.5cSt
@-25°C..... 3cSt
@-40°C 6cSt
@-60°C..... <20cSt

CAS Information

Identity	CAS #	%
Decamethyltetrasiloxane	141-62-8	100

Properties

Chemical name: Decamethyltetrasiloxane CAS No: 141-62-8	Viscosity @ 25C..... 1.5cSt
Appearance: clear, colorless, odorless	<u>Operating temperature stability</u> Closes system..... -80°C to 50°C
Pour Point..... -90°C Flash point..... 63°C Boiling Point (0.5mm, °C)... 194°C	<u>Dielectric Properties</u> Dielectric Constant..... 2.39 Dielectric Strength 350 volts/mil
Specific gravity: 0.85 Refractive Index: 1.3880	Vapor Density (air =1)..... >1 Vapor Pressure @ 25°C..... 1mmHg
Thermal Expansion (cc/cc/C, 0-150°C)..... 0.00134	Volatility @ 150°C (open system)..... 100%
Coefficient of Thermal Conductivity g/cal/cm/sec °C..... 2.5	Evaporation Rate (butyl acetate = 1): 0.7
Specific Heat @ 25°C..... 0.410 cal/g/°C	Molecular weight..... 340 Surface Tension..... 18.0
Volume Resistivity @ 25°C (ohm-cm)..... 5.0 x 10 ¹⁴	

* Packaging: 1.5 Centistokes

1-gallon pail..... 2.5kg
5-gallon pail..... 15kg
55-gallon drum (150kg)..... quoted upon request

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

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