



## Product Information

### PSF-2cSt Silicone Bath Fluid

**Operating Temperature Range: -80°C to 120°C closed system only**



PSF-2cSt Low Temperature Silicone Bath Fluid has a service temperature range of -80°C to 120°C (closed system only)

**PSF-2cSt Silicone 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-2cSt Silicone Bath Fluid** has an operating service temperature range of -80°C to 120°C. Due to its low flash point and high rate of evaporation, PSF-2cSt is not recommended for open bath systems. Fast rate of evaporation will require frequent replenishment of the fluid.

**PSF-2cSt Silicone Bath Fluid** 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 -60°C, the viscosity of PSF-2cSt is <20cSt. 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, recirculating coolers, refrigerated circulators, refrigerated baths, closed loop baths, low temperature heat transfer baths, low viscosity calibration fluid, heat transfer fluid in freeze drying equipment, fluid for thermostats.

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

#### Features

- Super low viscosity – provides excellent low temperature pumpability
- 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)..... 0.48

Viscosity @25°C.....2cSt

Viscosity

@-35°C.....8cSt

@-40°C .....10cSt

@-60°C.....<20cSt

#### Properties

Appearance: clear, colorless, odorless

Viscosity @ 25C.....2cSt

Pour Point.....-100°C

Flash point..... 75°C

Boiling Point (0.5mm, °C).....229°C

Operating temperature stability  
Closed system.....-80°C to 60°C

Dielectric Properties

Dielectric Constant.....2.45

Dielectric Strength .....350 volts/mil

Specific gravity: 0.873

Refractive Index: 1.391

Vapor Density (air =1).....>1

Vapor Pressure @ 25°C.....1mmHg

Thermal Expansion

cc/cc °C.....0.00117

Thermal Conductivity

g/cal/cm/sec °C.....0.00026

Volatility

@ 150°C (open system)..... 100%

Specific Heat

@ 25°C.....0.410 cal/g/°C

Evaporation

Rate (butyl acetate = 1): <1

Volume Resistivity @ 25°C

(ohm-cm).....5.0 x 10<sup>14</sup>

Molecular weight.....410

Surface Tension.....18.7

#### Packaging:

1-gallon.....3.28kg

5-gallon pail.....16.4kg

4 x 5-gallon pails

55-gallon drum.....170kg

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

#### CAS Information

Identity	CAS #	%
Dodecamethylpentasiloxane	141-63-9	100
Also under the general Polydimethylsiloxane CAS No. 63148-62-9.		

#### For More Information, Contact:

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