



Product Information

PSF-2cSt Silicone Bath Fluid

Operating Temperature Range: -80°C to 150°C closed system only



PSF-2cSt Low Temperature Silicone Bath Fluid has a service temperature range of -80°C to 150°C (closed system only)

PSF-2cSt Silicone Bath Fluid is a clear, colorless and odorless low-viscosity linear Polydimethylsiloxane with a viscosity of 2cSt @ 25°C.

PSF-2cSt is characterized by its low viscosity, low pour point, low viscosity change at temperature, high dielectric strength, low viscosity change at low temperatures and inertness to virtually all bath components.

In closed system baths, **PSF-2cSt Silicone Bath Fluid** has an operating service temperature range of -80°C to 150°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.

Specifications

Chemical Name	Polydimethylsiloxane / PDMS Silicone Oil
CAS #	63148-62-9
Appearance	Clear, colorless, odorless fluid
Minimum Order	1-gallon (3.785 liters)

Features

- low viscosity: easy to pump & circulate at low temperatures
- Clear, colorless and odorless fluid: easy to see instruments inside of the bath
- Insoluble in water
- Compatible with virtually all o-rings, gaskets, valves and seals *

**May cause swelling in silicone O-rings*

Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point closed cup	Boiling Point @ 760mm	Surface Tension dynes /cm @ 25°C	Vapor Pressure @ 25°C	Volatile content @ 150°C (open)	Molecular weight
0.873	1.3900	-100°C	75°C	229°C	18.7	1mmHg	100%	410

Thermal Properties

Thermal Conductivity @ 50°C g cal/cm•sec•°C	Thermal Expansion cc/cc °C	Specific Heat cal/g/ °C
0.00026	0.00117	0.410

* Thermal conductivity: 0.11 W/m °C

* Specific Heat: 1.8 J/g

Dielectric Properties

Dielectric Strength volts/mil	Dielectric constant (100Hz) @ 25C	Volume Resistivity @ 25°C(ohm-cm)
350 volts/mil	2.44	5.0 x 10 ¹⁴

Viscosity/Temperature

Viscosity-Temp Coefficient (V.T.C.).....	0.48
Viscosity @25°C.....	2cSt
Viscosity @-35°C.....	8cSt
@-40°C	10cSt
@-60°C.....	<20cSt

CAS Information

Identity	CAS #	%
Dodecamethylpentasiloxane	141-63-9	100

Also under the general PDMSCAS No. 63148-62-9.

Packaging

1-gallon (3.78 liters).....	3.28kg net wt.
5-gallon pail (18.9 liters).....	16.4kg net wt.
55-gallon drum (208 liters)	170kg net wt.

For More Info, Contact:

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