CLEARCO

Order Toll Free: 800 533-5823

Product Information

PSF-5cSt Silicone Heat Transfer Fluid

Operating Temperature Range: --70°C to 120°C (closed system)

PSF-5cSt Heat Transfer Fluid is a low viscosity heat transfer medium that offers a wide service temperature range.

PSF-5cSt Low Temperature Heat Transfer Fluid is a clear, colorless and odorless low-viscosity linear Polydimethylsiloxane that is formulated as a cold and heat transfer medium in a wide range of applications. **PSF-5cSt Low Temperature Silicone Bath Fluid** has an operating service temperature range of –70ºC to 120ºC (closed system*).

PSF-5cSt Silicone Heat Transfer Fluid is characterized by its low pour points, low temperature stability, wide service temperature range, low viscosity change at temperature (low V.T.C.), low surface tension, high dielectric strength, long service life, and hydrophobic nature (insoluble in water).

PSF-5cSt Silicone Heat Transfer Fluid has a Thermal Conductivity value of 0.00028 g/cal/cm/sec °C. Its specific heat value is 0.390 cal/g/°C @ 25°C.

PSF-5cSt Silicone Heat Transfer Fluid 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 only 40cSt. This is critical for baths that have pumping systems that cannot operate with higher viscosity fluids.

Applications include: low temperature heat transfer systems, heat transfer baths, heat transfer fluid in freeze drying equipment, heat transfer medium in lyophilization thermostats and cryostat fluids, calibration bath fluids for low temperature, low temperature closed system baths, low temperature constant temperature baths, low temperature circulating baths, low temperature circulator baths, low temperature refrigerated baths, low temperature closed loop baths,

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

Specifications

Chemical Name	Polydimethylsiloxane
CAS #	63148-62-9
Appearance	Clear, colorless, odorless fluid
Viscosity Class	Low
Non-Flammable	Yes
Thermally Stable	Yes

Viscosity @ temperature

Viscosity-Temperature-coefficient…0.54

Viscosity @ 25°C…….5cSt (centistokes)

Viscosity @ 0°C……..8cSt
Viscosity @ -20°C……..14cSt
Viscosity @ -40°C……..40cSt

Features

- 100% silicone fluid
- Low viscosity: 5cSt @ 25°C
- Excellent Low Temp Serviceability
- Hydrophobic – insoluble with water
- Compatible with virtually all o-rings, gaskets, hoses, valves and seals*
- Chemically Inert
- Low Viscosity-temp-coefficient (V.T.C)… 0.54
- Low Vapor pressure
- Low Service temperature range of –70°C
- Low Pour Point: -90°C
- Flash Point: 135°C
- High Resistance to Oxidation
- VOC Exempt

*Not recommended for silicone o-rings….may cause swelling.

Packaging: 5 Centistokes

1-gallon pail……..3.45kg
5-gallon pail……..17.25kg
4 x 5-gallon pails

55-gallon drum……190kg
F.O.B. Phila, PA

Typical Product Data

Specific Gravity	Viscosity-Temp Coefficient	Flash Point	Pour Point	Refractive Index	Thermal Expansion cc/cc °C	Thermal Conductivity g/cal/cm/sec °C	Specific Heat cal/g/ °C	Surface Tension	Dielectric Constant	Dielectric Strength volt/mil
0.918	0.54	135°C	-90°C	1.3970	0.00109	0.00028	0.390	19.7	2.60	375

Typical Product Data (cont'd)

Boiling Point	Vapor Density (air = 1)	Vapor Pressure @ 25°C	Max volatility, % wt loss @ 150°C	Molecular weight
>200°C	>1	1mmHg	90%	770

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