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## Product Information

# PSF-10cSt Low Viscosity Down-Hole Silicone Fluid

**Operating Temperature Range: -60°C to 200°C (closed system)**



PSF-10cSt Down-Hole Silicone Fluid is a durable low viscosity fluid that can withstand extreme pressures in the harshest downhole environments.

**PSF-10cSt Low Viscosity Down-Hole Silicone Fluid** is a clear, colorless and odorless linear Polydimethylsiloxane (CAS No. 63148-62-9) with a viscosity of 10cSt @ 25°C.

**PSF-10cSt Low Viscosity Down-Hole Silicone Fluid** is an excellent low viscosity fluid for the ever harsher environments in the Downhole Oil and Gas Industries. It is characterized by its low pour point, wide service temperature range, high compressibility, stability at extreme pressures, low viscosity change at temperature (low V.T.C.), high dielectric strength, long service life, and hydrophobic nature (insoluble in water).

Unlike conventional fluids like mineral oil, PSF-10cSt will not coagulate under pressure. Even at high pressures of 4,000MPa, the fluid will not solidify.

**PSF-10cSt Down Hole Fluid** has a Thermal Conductivity value of 0.00032 g/cal/cm/sec °C. Its specific heat value is 0.360 cal/g/°C @ 25°C.

Silicone Fluids are widely used as damping fluids due to their inertness and low viscosity change over a wide temperature range. PSF-10cSt Silicone Heat Transfer Fluid has a low viscosity-temperature coefficient or V.T.C. (viscosity @ 99°C ÷ viscosity @ 38°C). 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 systems that cannot pump or circulate higher viscosity fluids.

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

## Specifications

Chemical Family	Silicone
Chemical Name	Polydimethylsiloxane
CAS#	63148-62-9
Viscosity @ 25°C	10cSt
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
- Stability at extreme pressures
- 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 Pour Point: -70°C
- Flash Point: 211°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 .....3.52kg  
 5-gallon pail.....17.6kg  
 55-gallon drum.....190kg  
 F.O.B. Phila, PA U.S.A.

## Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point (closed cup)	Boiling Point	Surface Tension dynes cm @ 25°C	Thermal Conductivity @ 25°C g/cal/cm/sec °C	Thermal Expansion cc/cc °C	Volatile content @ 70°C	Specific Heat @ 25°C cal/g °C
0.935	1.3990	-70°C	163°C	>200 °C	20.1	0.00032	0.00108	0.68%	0.360

## Typical Product Data (cont'd)

Volume Resistivity	Molecular weight	Dielectric constant 50Hz	Dielectric strength volts/mil
≥1	1,250	2.68	375

## For More Information, Contact:

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