

# Product Information

# PSF-1cSt Silicone Damping Fluid

# Meets VV-D-1078 "Silicone as Damping Fluid"



VV-D-1078 "Silicone as Damping Fluid.

**PSF-1cSt Damping Fluid** is a super-low viscosity linear PDMS Silicone / Polydimethylsiloxane composed mainly of Octamethyltrisiloxane (CAS#107-51-7). The fluid is clear, colorless and essentially odorless with a viscosity of water (1 centistokes).

**PSF-1cSt Damping Fluid** is a hydrophobic fluid that is characterized by its low viscosity, low pour point (-85°C), low VTC (little viscosity change even at extremely low temperature), low surface tension (high spreadability), excellent lubrication, high damping action

**PSF-1cSt Damping Fluid** meets Federal Spec **VV-D-1078** "Silicone as Damping Fluid and exhibits **Newtonian behavior under shear**. It is used in a wide range of military and industrial liquid filled gauges, level controllers, rotary dampers, temperature and process recorders, control valves, calibration equipment, flow meters, thermostats, dashpots, monitoring systems avionic gauges and aviation instruments to dampen vibration, dampen pulsation, and dampen torque.

**PSF-1cSt Damping Fluid** is particularly effective for use in instruments and gauges that will operate at extremely low temperatures (pour points is -85°C). It is hydrophobic and prevents humidity from entering the gauge/instrument housing. This is very important. At low temperatures, water condensation can freeze and cause damage to the sensitive parts within the gauge/instrument housing. Ultimately, **Silicone Damping Fluids** will extend the service life of the equipment that it fills and provide more accurate readings even in the harshest of conditions.

#### **SPECIFICATIONS**

Product code	PSF-1cSt		
Chemical Family	Polydimethylsiloxane		
Chemical name	Octamethyltrisiloxane		
CAS No.	CAS 107-51-7		
Appearance	Clear, colorless & odorless fluid		
Flammability	HMIS 3		
Federal Spec	VV-D-1078 Silicone as damping fluid		
Minimum Order	1-gallon (3.785 liters)		

### Meets specification of NSN No.

NSN 9150-00-066-2382 NSN 9150-00-116-0323

#### **FEATURES**

- Dampen vibration in gauges, instruments, meters and avionic instruments
- Protects internal components against vibration, freezing and corrosion.
- Extends service life of gauges, instruments, meters and avionic instruments.
- Excellent low service temperature range
- Low viscosity change at temperature (low V.T.C.)
- Inert to virtually all o-rings, gaskets, seals and valves \*
- High Dielectric Strength
  - \* not recommended for Silicone o-rings due to possibility of swelling

#### Packaging

1-gallon3.08kg net wt.					
5-gallon pail15.4kg net wt.					
55-gallon drum170kg net wt.					
F.O.B. Phila, PA U.S.A.					

### **Typical Product Data**

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Viscosity	Specific Gravity	Viscosity – Temp Coefficient	Flash Point	Pour Point	Refractive Index	Thermal expansion cc/cc/sec °C	Thermal conductivity g/cal/cm/sec °C	Surface tension	Dielectric Constant	Dielectric Strength volts/mil
1cSt	0.818	0.37	39°C	-85°C	1.3825	0.00134	0.00024	17.4	2.30	350

#### Typical Product Data (cont'd)

Boiling Point	Vapor Density (air = 1)	Vapor Pressure @ 25°C	Evaporation rate butyl acetate = 1	Molecula r weight
151°C	>1	4mm	0.7	237

## For More Info, Contact: Clearco Products Co., Inc.

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