

# PSF-1.5cSt Silicone Damping Fluid

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



PSF-1.5cSt Damping Fluid is a linear 100% PDMS Silicone with a viscosity of 1.5cSt @ 25C

**PSF-1.5cSt Damping Fluid** is a super-low viscosity linear PDMS Silicone / Polydimethylsiloxane composed mainly of Decamethyltetrasiloxane (CAS#141-62-8). The fluid is clear, colorless and essentially odorless with a viscosity of 1.5cSt (centistokes) @ 25°C.

**PSF-1.5cSt 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-1.5cSt 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-1.5cSt 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-1.5cSt		
Chemical Family	Polydimethylsiloxane		
Chemical name	Decamethyltetrasiloxane		
CAS No.	CAS 141-62-8		
Appearance	Clear, colorless & odorless fluid		
Federal Spec	VV-D-1078 Silicone as damping fluid		
Minimum Order	1-gallon (3.785 liters)		

#### Meets specification of NSN No.

NSN 9150-01-193-2060

#### **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**

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1-gallon3.2kg net wt.
5-gallon pail16kg net wt.
55-gallon drum150kg net wt.
F.O.B. Phila, PA U.S.A.

## **Typical Product Data**

Viscosity @25°C	Specific Gravity	Viscosity- Temp Coefficient	Flash Point	Pour Point	Refractive Index	Thermal Expansion cc/cc °C	Thermal Conductivity g/cal/cm/ sec °C	Surface Tension	Dielectric Constant	Dielectric Strength volts/mil
1.5cSt	0.853	0.46	63°C	-90°C	1.3880	0.00134	0.00025	18.0	2.39	350

# Product Data (cont'd)

Boiling Point	Vapor Density (air = 1)	Vapor Pressure @ 25°C	Evaporation Rate Buty acetate = 1	% Volatile	Molecular weight	
194°C	>1	1mmHg	0.7	100%	340	

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