



## Super High Viscosity

### Pure Silicone Fluids (PSF-300k, PSF-500k, PSF-600k, PSF-1mil, PSF-2.5mil & PSF-20mil cSt)

Polydimethylsiloxane CAS # 63148-62-9 Meet VV-D-1078 "Silicone as Damping Fluid"



Super Hi-Viscosity Silicones Fluids are extremely viscous PDMS Silicones that meet VV-D-1078 "Silicone as Damping Fluid" and are used in a wide range of damping applications.

**Super Hi-Viscosity Pure Silicone Fluids** are high viscosity linear 100% Polydimethylsiloxane Fluids (CAS # 63148-62-9) that range in viscosity from 300,000cSt to 20,000,000cSt (centistokes). They are clear, colorless, odorless, and chemically inert to virtually all materials including plastics, metals and rubber. Hi-Viscosity PSF Fluids possess excellent thermal stability, and exhibit little viscosity change at both high and low temperature.

**Super High Viscosity Silicone Fluids** are extremely viscous fluids that possess both high damping properties and high resistance to shear without breakdown. They meet Federal Specification **VV-D-1078 "Silicone as Damping Fluid"**, and are used in a wide range of military, industrial and avionic gauges, meters, instruments, and monitoring systems.

Super Hi-Viscosities are widely used as lubricants for o-rings, gaskets, valves and seals. Unlike petroleum-based products, they contain no solvents or distillates that can attack the o-ring. They are compatible with virtually all plastics and rubbers with the exception of silicone rubber where swelling may occur.

**Uses Include:** High damping action fluid, O-ring lubricant, gasket lubricant, valve lubricant, rotary damper fluid.

#### Specifications

Chemical Name	Polydimethylsiloxane
INCI Name	Dimethicone
CAS #	63148-62-9
Product codes	PSF-300K, PSF-500K, PSF-600K, PSF-1mil, PSF-2.5mil, PSF-20mil
Federal Spec	VV-D-1078 "Silicone as Damping Fluid"
Appearance	Clear, colorless & odorless

#### Dielectric Properties

Dielectric constant Hz	Dielectric Strength volts/mil
2.75	400

#### Features and Benefits

- High Damping Action...meet Federal Spec VV-D-1078
- Excellent Lubrication
- Excellent O-Ring Lubricant
- Inert to virtually all o-rings, gaskets, seals and valves
- High Shearability without breakdown
- High Oxidation Resistance
- Provides a soft, emollient feel to skin in personal care products
- Prevents stickiness in skin care products
- Compatible with a wide range of solvents
- Hydrophobic – water repellent
- Inert- improves stability and shelf-life of formulations
- Low Vapor Pressure
- Excellent Thermal stability
- Low Viscosity change at both low and high temperatures

#### Typical Product Data

Viscosity	Specific Gravity	Refractive Index	Pour Point	V.T.C.	Flash Point	Surface Tension	Thermal Expansion cc/cc °C	Thermal conductivity g/cal/cm/sec °C	Molecular weight
300,000cSt	0.977	1.4035	-41°C	0.61	321°C	21.5	0.00092	0.00038	204,000
500,000cSt	0.977	1.4035	-41°C	0.61	321°C	21.5	0.00092	0.00038	
600,000cSt	0.978	1.4035	-41°C	0.61	321°C	21.6	0.00092	0.00038	260,000
1,000,000cSt	0.978	1.4035	-39°C	0.62	321°C	21.6	0.00092	0.00038	308,000
2,500,000cSt	0.978	1.4035	-38°C	0.62	321°C	21.6	0.00092	0.00038	423,000
20,000,000cSt	0.979	1.4035	-35°C	0.62	321°C	21.6	0.00092	0.00038	>500,000

#### Packaging

1-gallon.....	3.5 kg net wt.
5-gallon pail.....	17 kg net wt.
55-gallon drum.....	Please contact us for information
F.O.B. Phila, PA U.S.A.	

**For More Info, Contact:**  
**Clearco Products Co., Inc.**  
15 York Road  
Willow Grove, PA 19090  
U.S.A.

Tel: (215) 366-7860  
Fax: (215) 366-7862  
Email: [info@clearcoproducts.com](mailto:info@clearcoproducts.com)  
Web: [www.clearcoproducts.com](http://www.clearcoproducts.com)