

Super High Viscosity Pure Silicone Fluid (300,000cSt, 600,000cSt, 1,000,000cSt, 2.5 million & 20 million cSt)

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



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

Clearco Super Hi-Viscosity Pure Silicone Fluids are high viscosity linear 100% Polydimethylsiloxane (CAS # 63148-62-9) that range in viscosity from 300,000cSt to 20,000,000cSt (centistokes). They are clear, colorless, odorless, non-flammable 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.

In personal care products, Super Hi Viscosity Fluids provide a soft velvety feel when applied to hair and skin. They improve the feel of lotion products, and provide a hydrophobic, protective, but breathable barrier to the skin (allows skin to perspire), which imparts softness and emolliency. Pure Silicones are compatible with a wide range of cosmetic solvents and are particularly advantageous when blended with Cyclomethicones.

Specifications

Chemical Name	Polydimethylsiloxane
INCI Name	Dimethicone
CAS #	63148-62-9
Federal Spec	VV-D-1078 "Silicone as Damping Fluid"
Appearance	Clear Liquid – Odorless & Tasteless
Non-Flammable	Yes
Thermally Stable	Yes
Availability	1 – gallon pail (3.5kg) 5 – gallon pail (17kg) 55-gallon drums (200kg)
Minimum Order	1-gallon pail

Features and Benefits

- High Damping Action...meet Federal Spec VV-D-1078 "Silicone as Damping Fluid"
- 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	Viscosity/Temp Coefficient	Flash Point	Surface Tension Dynes cm @ 25C	Thermal Expansion cc/cc/C 0-150°C	Molecular weight
300,000cSt	0.977	1.4035	-41°C	0.61	321°C	21.5	0.00092	204,000
600,000cSt	0.978	1.4035	-41°C	0.61	321°C	21.6	0.00092	260,000
1,000,000cSt	0.978	1.4035	-39°C	0.62	321°C	21.6	0.00092	308,000
2,500,000cSt	0.978	1.4035	-38°C	0.62	321°C	21.6	0.00092	423,000
20,000,000cSt	0.979	1.4035	-35°C	0.62	321°C	21.6	0.00092	>500,000

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