

Technical Data Sheet (TDS)

Product Identification

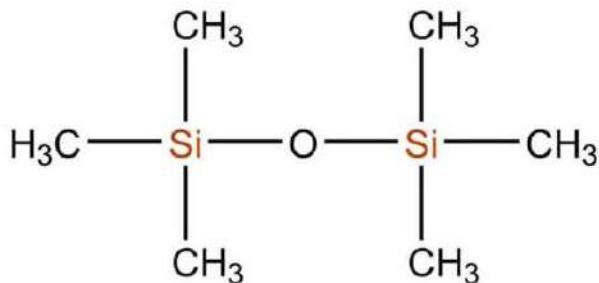
Product Name: Silico® MF2010-500 cSt Silicone Fluid

Chemical Name: Polydimethylsiloxane (PDMS)

CAS Number: 63148-62-9

Product Type: Linear medium-high viscosity silicone oil (non-food grade)

Chemical Structure



Product Description

Silico® MF2010-500 cSt Silicone Fluid is a high-purity, non-food grade PDMS designed for industrial applications requiring medium-high viscosity, thermal stability, chemical inertness, and low surface tension. It provides stable damping, controlled flow, and long-term performance across a wide range of mechanical, thermal, and electrical applications.

Typical Physical & Technical Properties

| Property | Typical Value |
|----------------------------|-------------------------|
| Appearance | Clear, colorless liquid |
| Chemical Structure | Linear PDMS |
| Kinematic Viscosity (25°C) | 500 cSt |

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|-------------------------|---|
| Specific Gravity (25°C) | 0.970–0.972 |
| Refractive Index (25°C) | 1.4033 |
| Surface Tension (25°C) | 20.7–21 mN/m |
| Flash Point | ~315°C (closed cup) |
| Pour/Freezing Point | ~–50°C |
| Solubility | Insoluble in water; miscible with many organic solvents |
| Dielectric Properties | High resistivity, low dielectric constant |
| CAS Number | 63148-62-9 |

Key Performance Features

Medium-high viscosity for damping and shear stability
 Excellent thermal and chemical resistance
 Low surface tension and hydrophobic behavior for superior wetting and release
 Low volatility and high flash point for safe long-term industrial use
 Strong dielectric properties suitable for electrical insulation

Typical Applications

Mechanical & hydraulic damping: vibration control, shock absorption
 Heat transfer fluids: thermal baths, circulation systems
 Release agents: molds, rubber, plastics, composites
 Industrial lubrication: elastomers, plastics, precision machinery
 Electrical insulation / dielectric fluids: electronic assemblies, transformers
 Surface treatments & process additives: anti-foam, coating, polishing

Packaging & Storage

Packaging: 20 kg pails, 190 kg drums, IBC containers
 Storage: Sealed containers, cool, dry, ventilated area
 Shelf Life: 24 months under recommended conditions
 Handling: Follow standard industrial hygiene; avoid prolonged skin contact