

Silico® MF2010-5000 cSt Silicone Fluid

Technical Data Sheet (TDS)

1. Product Identification

Product Name: Silico® MF2010-5000 cSt Silicone Fluid

Chemical Name: Polydimethylsiloxane (PDMS)

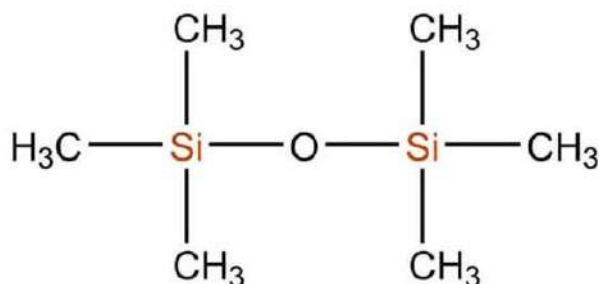
CAS Number: 63148-62-9

Molecular Structure: Linear dimethyl polysiloxane

Product Type: Ultra-high viscosity silicone fluid

Brand: Silico®

Chemical Structure



2. Product Description

Silico® MF2010-5000 cSt Silicone Fluid is a high-purity, linear PDMS engineered for applications requiring extremely high viscosity, thick fluid films, and long-term stability.

Its 5000 cSt viscosity ensures mechanical damping, heavy-duty lubrication, surface protection, and consistent dielectric performance in demanding industrial environments. This grade offers excellent thermal stability, low volatility, and chemical inertness.

5. Typical Physical & Technical Properties

Property	Typical Value
Appearance	Clear, colorless liquid
Chemical Type	Polydimethylsiloxane (PDMS)
CAS Number	63148-62-9

Kinematic Viscosity (25 °C)	5000 cSt
Density (25 °C)	~0.97 g/cm ³
Refractive Index (25 °C)	~1.403
Surface Tension (25 °C)	~21 mN/m
Flash Point (Closed Cup)	≥ 320 °C
Pour Point	~ -50 °C
Volatility (150 °C, 24 h)	Very low
Solubility	Insoluble in water; soluble in many organic solvents
Thermal Stability	Excellent
Dielectric Strength	High
Electrical Resistivity	High

3. Key Performance Characteristics

Ultra-high viscosity for thick, durable films
Excellent thermal and oxidative stability
Very low surface tension and strong hydrophobicity
Chemically inert and compatible with metals, plastics, elastomers
Low volatility and high flash point
Stable dielectric and electrical properties

4. Typical Applications

Mechanical damping and vibration control
Heavy-duty lubrication for seals, bearings, and high-load equipment
Mold release agents for rubber, plastics, and composites
Viscous coupling and motion-control fluids
Thermal interface and heat transfer applications
Electrical insulation and dielectric fluids
Surface treatment, coating, and specialty fluid formulations

6. Packaging & Storage

Packaging: 180 kg steel drums, 950 kg IBC totes
Storage Conditions: Sealed containers, cool, dry, ventilated area
Shelf Life: Up to 24 months
Handling: Follow standard industrial hygiene practices; avoid prolonged skin contact