

## Silico® MF2010-30,000 cSt Silicone Fluid

### Technical Data Sheet (TDS)

#### Product Identification

Product Name: Silico® MF2010-30,000 cSt Silicone Fluid

Chemical Name: Polydimethylsiloxane (PDMS)

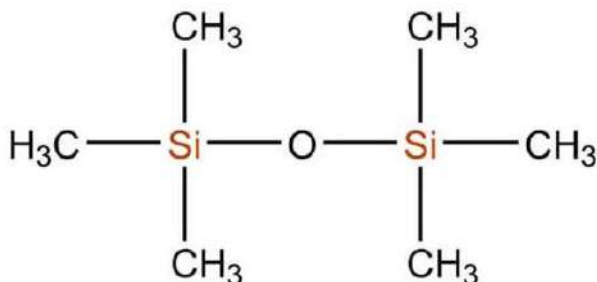
CAS Number: 63148-62-9

Molecular Structure: Linear dimethyl polysiloxane

Product Type: Ultra-high viscosity silicone fluid

Brand: Silico®

#### Chemical Structure



#### Product Description

Silico® MF2010-30,000 cSt Silicone Fluid is a high-purity, linear PDMS designed for ultra-high viscosity applications in demanding industrial environments.

With a nominal viscosity of 30,000 cSt at 25 °C, it forms thick, durable fluid films suitable for mechanical damping, heavy-duty lubrication, thermal management, and dielectric insulation.

The fluid exhibits excellent thermal stability, chemical inertness, low volatility, and strong dielectric performance, ensuring reliable long-term operation under extreme conditions.

#### Typical Physical & Technical Properties

Property	Typical Value
Appearance	Clear, colorless viscous liquid

Chemical Type	Polydimethylsiloxane (PDMS)
CAS Number	63148-62-9
Kinematic Viscosity (25 °C)	30,000 cSt
Density (25 °C)	~0.97 g/cm <sup>3</sup>
Refractive Index (25 °C)	~1.403
Surface Tension (25 °C)	~21.5 mN/m
Flash Point (Closed Cup)	>300 °C
Pour/Freezing Point	~-50 °C
Solubility	Insoluble in water; miscible with many organic solvents
Thermal Stability	Excellent
Dielectric Properties	High resistivity, stable insulation

## Key Performance Characteristics

- Ultra-high viscosity for long-lasting film formation
- Excellent thermal and oxidative stability
- Low surface tension and strong hydrophobicity
- Chemically inert; compatible with metals, plastics, and elastomers
- Low volatility and high flash point for extended operational life
- Stable dielectric properties for electrical insulation

## Typical Applications

- Heavy-duty lubrication for slow-moving or high-load mechanical parts
- Vibration damping & motion control for precision instruments
- Mold release agents for rubber, plastics, and metal dies
- Thermal interface fluids & heat management
- Dielectric fluids & electrical insulation media
- Specialty fluid formulations in coatings, antifoams, and surface treatments

## Handling, Storage & Packaging

- Packaging: 180 kg drums, 950 kg IBC containers
- Storage Conditions: Keep in sealed containers in a cool, dry, and ventilated area
- Shelf Life: Up to 24 months
- Handling: Use standard industrial hygiene practices; avoid prolonged skin contact; clean spills immediately to prevent slip hazards