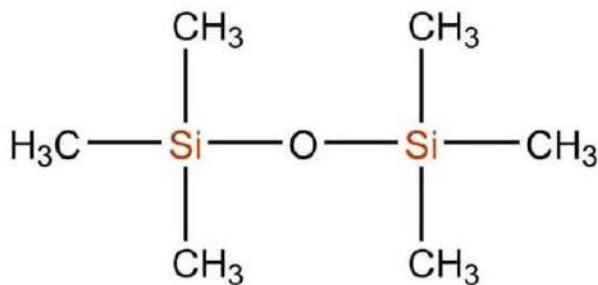


Technical Data Sheet (TDS)

Chemical Structure



Product Description

Silico® MF2010-50 cSt Silicone Fluid is a high-purity, linear polydimethylsiloxane (PDMS) silicone fluid with a nominal kinematic viscosity of 50 cSt at 25°C. It offers an excellent balance of lubricity, thermal stability, low surface tension, and chemical inertness, making it suitable for a wide range of industrial, personal care, and specialty chemical applications.

Chemical Identity

Chemical Name: Polydimethylsiloxane (PDMS)

CAS No.: 63148-62-9

Molecular Structure: Linear dimethyl silicone polymer

Typical Physical Properties

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

Viscosity @ 25 °C	50 cSt
Specific Gravity @ 25 °C	~0.959 g/cm³
Refractive Index @ 25 °C	~1.402
Flash Point (Closed Cup)	>280 °C
Ignition Point	>400 °C
Pour/Freezing Point	~−55 °C
Surface Tension @ 25 °C	~20.7 mN/m
Solubility	Insoluble in water; miscible with many organic solvents
Thermal Properties	Stable across wide temperature range
Electrical Properties	High dielectric strength and resistivity

Typical values are not intended for use as specifications.

Key Performance Features

- Stable and consistent viscosity control
- Excellent thermal and oxidative stability
- Low surface energy for superior slip and release
- Hydrophobic and water-repellent
- Chemically inert and non-corrosive
- Good dielectric properties

Typical Applications

- Industrial and light mechanical lubrication
- Mold release agents for rubber and plastics
- Textile and fiber finishing
- Personal care and cosmetic formulations
- Polishes, coatings, and surface treatments
- Electrical insulation and heat transfer fluids

Packaging & Storage

- Available in drums, pails, and bulk packaging
- Store in a cool, dry, and well-ventilated area
- Keep containers tightly sealed when not in use
- Recommended shelf life: 24 months under proper storage conditions
