

# Technical Data Sheet (TDS)

## Product Identification

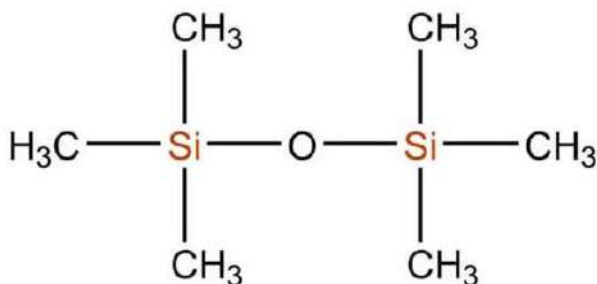
Product Name: Silico® MF2010-500 cSt Silicone Fluid

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

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