

Silico® MF2020-2000000 Silicone Fluid

SAFETY DATA SHEET (SDS)

Ultra-High Viscosity Polydimethylsiloxane (PDMS) – 2,000,000 cSt Industrial Silicone Oil

Prepared in accordance with:

- Regulation (EC) No. 1907/2006 (REACH)
- Regulation (EC) No. 1272/2008 (CLP)
- Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Revision Date: 13 February 2024

Version: 2.0

Silico Chemical Group

Advanced Manufacturer of High Molecular Weight Silicone Fluids

SECTION 1: Identification of the Substance and of the Company

1.1 Product Identifier

Product Name: Silico® MF2020-2000000 Silicone Fluid

Chemical Name: Polydimethylsiloxane

Synonyms: High Molecular Weight PDMS, Ultra High Viscosity Silicone Oil

CAS Numbers: 9006-65-9 / 63148-62-9 / 9016-00-6

Product Type: Linear silicone polymer fluid

1.2 Relevant Identified Uses

Silico® MF2020-2000000 is an ultra-high viscosity PDMS silicone fluid designed for industrial applications requiring exceptional film strength and rheological stability, including:

- Vibration damping systems
- Mechanical and hydraulic damping media
- Shock absorption compounds
- High-film-thickness lubrication
- Specialty compounding and silicone modification systems

Uses Advised Against:

Not approved for food contact, pharmaceutical, cosmetic, or medical implant applications without formal certification.

1.3 Supplier Information

Company: Silico® Silicone / Daiyue Industrial Area, Taian, Shandong, China

Email: info@silicorex.com

Emergency Contact: +86-0538-5071566

Website: www.silicorex.com

SECTION 2: Hazard Identification

2.1 Classification

According to Regulation (EC) No. 1272/2008 (CLP):
Not classified as hazardous.

According to GHS criteria:
Not classified as hazardous.

2.2 Label Elements

Hazard Pictograms: None required
Signal Word: None
Hazard Statements: Not applicable
Precautionary Statements: Follow good industrial hygiene and safety practices.

2.3 Other Hazards

- Material may create slip hazard if spilled.
- Does not meet PBT or vPvB criteria.

SECTION 3: Composition / Information on Ingredients

Substance: High molecular weight linear polydimethylsiloxane.

Component	Polydimethylsiloxane (PDMS)
CAS No.	63148-62-9
Concentration	≥ 99%

No hazardous stabilizers or reportable impurities present above regulatory thresholds.

SECTION 4: First-Aid Measures

General Advice:

Seek medical attention if irritation or symptoms develop.

Inhalation:

Exposure unlikely under normal conditions due to negligible vapor pressure. If aerosolized, move to fresh air.

Skin Contact:

Wash thoroughly with soap and water.

Eye Contact:

Rinse with water for several minutes. Seek medical attention if irritation persists.

Ingestion:

Rinse mouth. Do not induce vomiting. Obtain medical advice if discomfort occurs.

Most Important Symptoms:

No significant adverse health effects anticipated under normal industrial use.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media:

Foam, dry chemical powder, carbon dioxide, water mist.

Unsuitable Media:

High-pressure water jet.

Specific Hazards:

Thermal decomposition may generate carbon oxides (CO, CO₂), silicon oxides, and trace formaldehyde at elevated temperatures.

Protective Equipment:

Self-contained breathing apparatus (SCBA) and full protective clothing.

SECTION 6: Accidental Release Measures

Personal Precautions:

Use appropriate protective equipment. Avoid direct contact.

Environmental Precautions:

Prevent uncontrolled release to water systems.

Methods for Containment and Cleanup:

- Mechanically collect bulk material.
- Absorb residues with inert absorbent.
- Dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

Handling:

Avoid generating aerosols.

Use appropriate lifting techniques due to high viscosity.

Ensure adequate ventilation.

Storage:

Store in original, tightly sealed containers.

Protect from extreme heat and strong oxidizers.

Recommended storage temperature: 5–35°C.

SECTION 8: Exposure Controls / Personal Protection

Engineering Controls:

General ventilation is adequate.

Personal Protective Equipment:

Respiratory Protection:

Not normally required.

Eye Protection:

Safety glasses with side shields.

Skin Protection:

Chemical-resistant gloves recommended for prolonged contact.

Hygiene Measures:

Wash hands after handling.

SECTION 9: Physical and Chemical Properties

Property	Typical Value
Appearance	Clear to slightly translucent, highly viscous liquid
Odor	Odorless
Viscosity (25 °C)	~2,000,000 cSt
Density (25 °C)	Approx. 0.97–0.99 g/cm ³
Flash Point(Closed Cup)	>320 °C
Auto-Ignition Temperature	> 400°C
Boiling Range	> 200°C
Solubility in Water	Insoluble
Vapor Pressure	Negligible
Surface Tension	Typical of PDMS fluids

Note: Values listed are typical properties and should not be interpreted as product specifications.

SECTION 10: Stability and Reactivity

Chemical Stability:

Stable under recommended storage and handling conditions.

Conditions to Avoid:

Excessive heat, open flame.

Incompatible Materials:

Strong oxidizing agents.

Hazardous Decomposition Products:

Carbon oxides, silicon oxides, trace formaldehyde at high temperatures.

SECTION 11: Toxicological Information

Based on available data for high molecular weight polydimethylsiloxane:

Acute Toxicity: Low
Skin Irritation: Not expected
Eye Irritation: Mild transient irritation possible
Sensitization: Not expected
Chronic Effects: No known significant hazards

PDMS silicone fluids are widely regarded as biologically inert under normal industrial conditions.

SECTION 12: Ecological Information

Ecotoxicity: Low toxicity profile
Persistence: Not readily biodegradable
Bioaccumulation: Low potential
Mobility: Insoluble in water; adsorbs to soil/sediment

Avoid environmental release.

SECTION 13: Disposal Considerations

Dispose of material and packaging in accordance with applicable environmental regulations.
Do not discharge into natural waterways.

SECTION 14: Transport Information

ADR / RID / IMDG / IATA:

Not classified as dangerous goods.

UN Number: Not applicable
Transport Hazard Class: Not applicable
Packing Group: Not applicable

SECTION 15: Regulatory Information

Complies with:

- EU REACH Regulation
- EU CLP Regulation
- GHS classification framework

Not subject to hazardous labeling requirements.

SECTION 16: Other Information

This Safety Data Sheet provides guidance for safe handling, storage, transportation, and industrial use of:

Silico® MF2020-2000000 Silicone Fluid

Ultra High Viscosity PDMS Silicone Oil (2,000,000 cSt)
High Molecular Weight Polydimethylsiloxane

The information contained herein is based on current technical knowledge and regulatory standards and is believed to be accurate at the date of issue.