

Silico® MF2020-12500 Silicone Fluid

SAFETY DATA SHEET (SDS)

SECTION 1: Identification of the Substance/Mixture and of the Company

Product Identifier

Product Name: Silico® MF2020-12500 Silicone Fluid

Chemical Name: Polydimethylsiloxane (PDMS)

CAS No.: 63148-62-9

Relevant Identified Uses of the Substance or Mixture

This product is used as:

- High viscosity silicone fluid for industrial damping
- Mechanical motion control and vibration damping medium
- Heavy-load lubrication fluid
- Dielectric and thermal management fluid

Uses Advised Against

- Not intended for food contact, pharmaceutical, or medical applications unless specifically certified.

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

Classification (GHS / CLP / OSHA):

This product is not classified as hazardous according to Regulation (EC) No. 1272/2008 (CLP), GHS, or OSHA Hazard Communication Standard.

Label Elements:

- Signal Word: None
- Hazard Pictograms: None
- Hazard Statements: None required

Other Hazards:

- Spilled material may create a slip hazard due to high viscosity and surface lubricity.

SECTION 3: Composition / Information on Ingredients

| | |
|---------------|----------------------|
| Component | Polydimethylsiloxane |
| CAS No. | 63148-62-9 |
| Concentration | ≥ 99% |

This product does not contain hazardous components above the applicable regulatory disclosure limits.

SECTION 4: First-Aid Measures

General Advice:

This product is not expected to cause significant adverse effects under normal handling and use. If in doubt or if symptoms occur, obtain medical attention.

Inhalation:

Move affected person to fresh air. Seek medical attention if symptoms persist.

Skin Contact:

Wash thoroughly with soap and water. Remove contaminated clothing. Seek medical attention if irritation occurs.

Eye Contact:

Rinse immediately with clean water for at least 15 minutes. Seek medical advice if irritation persists.

Ingestion:

Do not induce vomiting. Rinse mouth and obtain medical attention if adverse symptoms develop.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media:

- Water mist
- Carbon dioxide (CO₂)
- Dry chemical powder
- Alcohol-resistant foam

Unsuitable Extinguishing Media:

High-pressure water jets.

Specific Hazards:

Thermal decomposition may produce carbon oxides and silicon oxides.

Protective Equipment for Firefighters:

Wear self-contained breathing apparatus and full protective gear.

SECTION 6: Accidental Release Measures

Personal Precautions:

Wear suitable protective equipment to avoid contact with eyes and skin. Avoid slipping hazards.

Environmental Precautions:

Prevent release into drains, surface waters, or soil.

Cleanup Methods:

Absorb spilled material with inert absorbent (e.g., sand, earth). Collect and place in suitable labeled containers for disposal according to local regulations.

SECTION 7: Handling and Storage

Handling:

Handle in accordance with good industrial hygiene practices. Avoid prolonged skin contact.

Storage:

Store in original, sealed containers in a cool, dry, and well-ventilated area away from heat sources.
Recommended storage temperature: $\leq 40\text{ }^{\circ}\text{C}$.

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits:

No specific occupational exposure limits established.

Engineering Controls:

General ventilation is recommended.

Personal Protective Equipment:

- Eye Protection: Safety goggles
- Hand Protection: Chemical-resistant gloves
- Skin Protection: Protective work clothing
- Respiratory Protection: Not normally required; use a respirator if mists or aerosols are generated

SECTION 9: Physical and Chemical Properties

| Property | Typical Value |
|-------------------|----------------------------------|
| Appearance | Clear, colorless, viscous liquid |
| Odor | Odorless |
| Viscosity (25 °C) | ~12,500 cSt |
| Density (25 °C) | ~0.97 g/cm ³ |

| | |
|----------------|--------------------|
| Flash Point | > 300 °C |
| Pour Point | Approx. -50 °C |
| Solubility | Insoluble in water |
| Vapor Pressure | Negligible |

Typical values are provided for reference and may vary slightly between production batches.

SECTION 10: Stability and Reactivity

Reactivity:

No hazardous reactions expected under normal conditions of use.

Chemical Stability:

Stable when stored and handled correctly.

Conditions to Avoid:

Extremely high temperatures and open flames.

Incompatible Materials:

Strong oxidizing agents.

Hazardous Decomposition Products:

Silicon oxides and carbon oxides upon thermal decomposition.

SECTION 11: Toxicological Information

Acute Toxicity:

Based on PDMS reference data, low acute toxicity via oral or dermal routes.

Skin and Eye Irritation:

Not classified as irritating under standard industrial exposure.

Sensitization:

Not expected to cause sensitization.

Chronic Effects:

No evidence of carcinogenicity, mutagenicity, or reproductive toxicity at typical industrial exposure levels.

SECTION 12: Ecological Information

Ecotoxicity:

Low aquatic toxicity based on PDMS data.

Persistence and Degradability:

Polydimethylsiloxane is not readily biodegradable; degrades primarily via abiotic processes.

Bioaccumulation:

Not expected to bioaccumulate.

Mobility:

Insoluble in water and adsorbs to soil particles.

SECTION 13: Disposal Considerations

Dispose of this product and contaminated materials in accordance with local, regional, and national regulations. Avoid release to the environment.

SECTION 14: Transport Information

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

This product is not classified as dangerous goods under ADR, IMDG, or IATA.

SECTION 15: Regulatory Information

This product complies with major chemical inventory regulations (e.g., TSCA, applicable REACH requirements). Regulatory obligations should be verified based on the specific jurisdiction.

SECTION 16: Other Information

This SDS is based on current knowledge and is intended for industrial and professional users of Silico® MF2020-12500 Silicone Fluid. It provides safety and handling information but does not constitute a quality specification.