

SECTION 1: Identification of the substance/mixture and of the company**Product Identifier**

Product Name: SiSiB® MF2010-5
Chemical Name: Polydimethylsiloxane
CAS-No.: 9006-65-9 / 9016-00-6 / 63148-62-9
EC-No.: 618-433-4 / 618-493-1 / 613-156-5

Relevant identified uses of the substance or mixture and uses advised against

Relevant applications identified For Industrial Use

Details of the supplier of the safety data sheet

Company Nanjing SiSiB Silicones Co., Ltd.
Guanghua Sci & Tech Industrial Zone,
No. 104, Guanghua Road, Nanjing 210007, P.R.China
Email: SDS@SiSiB.com

Emergency Telephone Number: +86-25-8468-0091

SECTION 2: Hazardous identification**Classification of the substance or mixture****Classification (GHS):**

Not a hazardous substance or mixture.

Label elements**Labelling (GHS):**

No labeling according to GHS required.

Other hazards

No data available

SECTION 3: Composition/information on ingredients**Substances**

Chemical characteristics Polydimethylsiloxane

Information on ingredients:

This material does not contain any ingredients above the permitted limit(s).

Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricably bound in the product. Specific chemical identities and/or exact percentage (concentration) of the composition may have been withheld as a trade secret.

SECTION 4: First aid measures

General advice

Get medical attention if irritation or other symptoms occur. Take a copy of the Safety Data Sheet when going for medical treatment.

After inhalation

Material cannot be inhaled under normal conditions. Get medical attention if symptoms occur.

After contact with the skin

After skin contact wipes off excess material with cloth or paper. Use a waterless hand cleaner to remove as much of the remaining material as possible. Wash with soap and water.

After contact with the eyes

If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min.

After swallowing

No special measures are required after swallowing. Get medical attention if symptoms occur.

Advice for the physician

Treat symptomatically.

SECTION 5: Firefighting measures**Flammable properties:**

Property:	Value:	Method:
Flash point	130 °C (266 °F)	(EN 22719)
Flash point	145 °C (293 °F)	(ISO 2592)
Boiling point / boiling range	325 °C (617 °F) at 1013 hPa	(EU-GL.A.2)
Lower explosion limit (LEL)	not applicable	
Upper explosion limit (UEL)	not applicable	
Ignition temperature	350 °C (662 °F)	(EN 14522)
NFPA Hazard Class (comb. /flam. Liquid)	IIIB	

Fire and explosion hazards:

This material does not present any unusual fire or explosion hazards.

Recommended extinguishing media:

Water-mist, carbon dioxide, sand, dry chemical or alcohol-resistant foam.

Unsuitable extinguishing media:

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Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Hazardous decomposition products: carbon dioxide, carbon monoxide, formaldehyde, silicon dioxide and incompletely burnt hydrocarbons.

SECTION 6: Accidental release measures

Precautions:

Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. If material is released indicate risk of slipping. Do not walk through spilled material.

HAZWOPER PPE Level: D

Containment:

Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

Methods for cleaning up

Take up mechanically and dispose of according to local/state/federal regulations. Do not flush away with water. For small amounts: Absorb with a neutral (non-acidic / non-basic) liquid binding material such as diatomaceous earth and dispose of according to government regulations. For large amounts: Liquids may be recovered using suction devices or pumps. If flammable, only air driven or properly rated electrical equipment should be used. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Silicone fluids are slippery; spills are a safety hazard. Apply sand or other inert granular material to improve traction.

SECTION 7: Handling and storage**Precautions for safe handling**

Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Spilled substance increases risk of slipping. Observe information in section 8.

Precautions against fire and explosion:

Observe the general rules for fire prevention.

Conditions for storage rooms and vessels:

Observe local/state/federal regulations.

Advice for storage of incompatible materials:

Observe local/state/federal regulations.

Further information for storage:

Store in a dry and cool place.

Maximum temperature allowed during storage and transportation: 40 °C (104 °F)

SECTION 8: Exposure Controls/Personal Protection**Engineering controls****Ventilation:**

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Use with adequate ventilation.

Local exhaust:

No special ventilation required.

Associate substances with specific control parameters such as limit values

Maximum airborne concentrations at the workplace:

CAS No.	Material	Type	mg/m3	ppm	Dust fract.
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not applicable

Personal protection equipment (PPE)

Respiratory protection:

Respiratory protection is not normally required.

Hand protection:

Recommendation: Any liquid-tight rubber or vinyl gloves.

Eye protection:

Recommendation: Safety glasses with side shields or chemical safety goggles.

Other protective clothing or equipment:

Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

General hygiene and protection measures:

Avoid breathing dust/vapor/mist/gas/aerosol. Do not eat or drink when handling. Wash thoroughly after handling.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance

Physical state / form: liquid
 Color: colorless, clear
 Odor: odorless

Safety parameters

Property:	Value:	Method:
Melting point / melting range:	-65 °C (-85 °F)	
Boiling point / boiling range:	325 °C (617 °F) at 1013 hPa	(EU-GL.A.2)
Flash point	130 °C (266 °F)	(EN 22719)
Flash point	145 °C (293 °F)	(ISO 2592)
Ignition temperature	350 °C (662 °F)	(EN 14522)
Lower explosion limit (LEL)	not applicable	
Upper explosion limit (UEL)	not applicable	
Vapor pressure:	not determined	
Density:	approx. 0.92 g/cm ³ at 25 °C (77 °F)	(DIN 51757)
Water solubility / miscibility:	virtually insoluble	
PH-Value:	approx. 7(92 g/l H ₂ O)	
Viscosity (dynamic):	5 mPa.s at 25 °C (77 °F)	(DIN 53019)

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Viscosity (kinematic): approx. 5 mm²/s at 25 °C (77 °F) (DIN 53019)

Further information

Odor limit: no data available

Thermal decomposition: Decomposition begins at > 250 °C (> 482 °F)

SECTION 10: Stability And Reactivity

General information:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

Conditions to avoid

None known

Materials to avoid

None known

Hazardous decomposition products

If stored and handled properly: none known. Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

Further information:

Hazardous polymerization cannot occur.

SECTION 11: Toxicological Information

Information on toxicological effects

Acute toxicity

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD ₅₀ : > 5000 mg/kg Neither mortality nor clinical signs of toxicity were observed with the given dose.	rat	literature (Polydimethylsiloxane)
dermal	LD ₅₀ : > 2008 mg/kg Neither mortality nor clinical signs of toxicity were observed with the given dose.	rat	literature (Polydimethylsiloxane)

Skin corrosion/irritation

Product details:

Result/Effect	Species/Test system	Source
not irritating	rabbit	literature (Polydimethylsiloxane)

Serious eye damage/eye irritation

Product details:

Result/Effect	Species/Test system	Source
not irritating	rabbit	literature (Polydimethylsiloxane)

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Respiratory or skin sensitization

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
dermal	not sensitizing	guinea-pig; Magnusson-Kligman	literature (Polydimethylsiloxane) OECD 406

Germ cell mutagenicity

Assessment:

Based on known data a significant mutagenic potential may be excluded.

Product details:

Result/Effect	Species/Test system	Source
negative	mutation assay (in vitro) bacterial cells	literature (Polydimethylsiloxane) OECD 471

Carcinogenicity

Assessment:

Animal tests have not revealed any carcinogenic effects.

Product details:

Result/Effect	Species/Test system	Source
NOAEL: ≥ 1000 mg/kg NOAEL= NOAEL (carcinogenic effects)	carcinogenicity study rat (F344) oral(feed) 2 a	literature (Polydimethylsiloxane)

Reproductive toxicity

Assessment:

Animal tests have shown no indications of possibility of damage to embryo and impairment of fertility.

Product details:

Result/Effect (Examinations of developmental toxicity and teratogenicity)	Species/Test system	Source
NOAEL (developmental): ≥ 1000 mg/kg NOAEL (maternal): ≥ 1000 mg/kg Symptoms/Effect: Nothing abnormal detected.	Developmental Toxicity Study rabbit oral (gavage); day 6 - 19 of gestation	literature (Polydimethylsiloxane)

Specific target organ toxicity - single exposure

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Specific target organ toxicity - repeated exposure

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Product details:

Result/Effect	Species/Test system	Source
NOAEL: ≥ 1000 mg/kg NOAEL = NOAEL (systemic effects)	chronic study rat oral (feed) 1 a Follow-up observation	literature (Polydimethylsiloxane)

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	period: 1 a	
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Aspiration hazard

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Further toxicological information

No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other information: Human patch test: Product displays good compatibility with the skin.

SECTION 12: Ecological Effects

Toxicity

Assessment:

Based on available data no effects on aquatic organisms that are relevant for classification must be expected for the product up to its limits of water solubility. According to current knowledge adverse effects on water purification plants are not expected.

Product details:

Result/Effect	Species/Test system	Source
> 1000 mg/l (nominal) effect level > maximum achievable concentration	static (water-accommodated fraction) Fish (96 h)	literature
EC ₅₀ : > 0.0001 mg/l (measured) effect level > maximum achievable concentration	static (water-accommodated fraction) Daphnia magna (48 h)	literature
IC ₅₀ (growth rate): > 100000 mg/l (nominal)	static (water-accommodated fraction) Marine alga (skeleonema costatum) (72 h)	literature
NOEC: > 10000 mg/kg	feeding study rainbow trout (Oncorhynchus mykiss) (28 d)	literature
NOEC (mortality, growth, reproduction): > 500 mg/kg The exposure to treated sediment did not result in effects.	exposure via sediment Daphnia magna (21 d)	literature

Persistence and degradability

Assessment:

Silicone content: biologically not degradable. Elimination by adsorption to activated sludge.

Polydimethylsiloxanes are degradable to a certain extent in abiotic processes.

Bio accumulative potential

Assessment:

Polymer component: Bioaccumulation is not expected to occur.

Mobility in soil

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Assessment:

Polymer component: insoluble in water; adsorbs on soil.

Other adverse effects

None known

SECTION 13: Disposal considerations**Product disposal**

Recommendation:

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include e.g., landfill or incineration.

Packaging disposal

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

SECTION 14: Transport Information**US DOT & CANADA TDG SURFACE**

Valuation: Not regulated for transport.

Transport by sea IMDG-Code

Valuation: Not regulated for transport.

Air transport ICAO-TI/IATA-DGR

Valuation: Not regulated for transport.

SECTION 15: Regulatory Information**U.S. Federal regulations****TSCA inventory status and TSCA information:**

This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

TSCA 12(b) Export Notification:

This material does not contain reportable amounts of any TSCA 12(b) listed chemicals.

CERCLA Regulated Chemicals:

This material does not contain any CERCLA regulated chemicals.

SARA 302 Components

This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazards

This product does not present any SARA 311/312 hazards.

SARA 313 Chemicals:

This material does not contain any SARA 313 chemicals above de minimums levels.

HAPS (Hazardous Air Pollutants):

This material does not contain any hazardous air pollutants.

U.S. State regulations**California Proposition 65 Carcinogens:**

This material does not contain any chemicals known to the State of California to cause cancer.

California Proposition 65 Reproductive Toxins:

This material does not contain any chemicals known to the State of California to cause reproductive effects.

Massachusetts Substance List:

This material contains no listed components.

New Jersey Right-to-Know Hazardous Substance List:

This material contains no listed components.

Pennsylvania Right-to-Know Hazardous Substance List:

This material contains no listed components.

Details of international registration status

Relevant information about individual substance inventories, where available, is given below.

South Korea (Republic of Korea):

ECL (Existing Chemicals List): This product is listed in, or complies with, the substance inventory.

Japan:

ENCS (Handbook of Existing and New Chemical Substances): This product is listed in, or complies with, the substance inventory.

Australia:

AICS (Australian Inventory of Chemical Substances): This product is listed in, or complies with, the substance inventory.

People's Republic of China:

IECSC (Inventory of Existing Chemical Substances in China): This product is listed in, or complies with, the substance inventory.

Canada:

DSL (Domestic Substance List): This product is listed in, or complies with, the substance inventory.

Philippines:

PICCS (Philippine Inventory of Chemicals and Chemical Substances): This product is listed in, or complies with, the substance inventory.

United States of America (USA):

TSCA (Toxic Substance Control Act Chemical Substance Inventory): This product is listed in, or complies with, the substance inventory.

Taiwan (Republic of China):

TCSI (Taiwan Chemical Substance Inventory): This product is listed in, or complies with, the substance inventory. General note: Taiwan REACH requires a phase 1 registration for TCSI-listed or TCSI-compliant

substances if imports to Taiwan or manufacturing in Taiwan exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each ingredient). It is the duty of the importing/manufacturing legal entity to take care of this obligation.

European Economic Area (EEA):

REACH (Regulation (EC) No 1907/2006): General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.

SECTION 16: Other Information

Further information

It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.