SECTION 1: Identification of the substance/mixture and of the company

Product Identifier

Product Name: SiSiB® MF2010-12500

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 according to Regulation (EC) No. 1272/2008:

Not a hazardous substance or mixture.

Label elements

Labeling according to Regulation (EC) No. 1272/2008:

No labeling according to GHS required.

Other hazards

No data available

SECTION 3: Composition/information on ingredients

Substances

Chemical characteristics: Polydimethylsiloxane

Hazardous ingredients

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

Mixtures

Not applicable.

SECTION 4: First aid measures

General advice

Get medical attention if irritation or other symptoms occur. Before seeking medical attention remove contaminated clothing and shoes. 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.

Most important symptoms and effects, both acute and delayed

Any relevant information can be found in other parts of this section.

Indication of any immediate medical attention and special treatment needed

Further toxicology information in section 11 must be observed.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Water mist, extinguishing powder, alcohol-resistant foam, carbon dioxide, sand

Extinguishing media which must not be used for safety reasons:

Water jet

Special hazards arising from the substance or mixture

Risk of hazardous gasses or fumes in the event of fire. Exposure to combustion products may be a health hazard! Hazardous combustion products: carbon oxides, silicon oxides, incompletely burnt hydrocarbons, toxic and very toxic fumes.

Advice for firefighters

Special protective equipment for firefighting:

Use respiratory protection independent of recirculate air.

Keep unprotected persons away.

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.

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.

Reference to other sections

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

SECTION 7: Handling and storage

General information:

No special protective measures required.

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

Specific end use(s)

No data available.

SECTION 8: Exposure Controls/Personal Protection

Control parameters

Maximum airborne concentrations at the workplace

Not applicable

Exposure controls

Exposure in the work place limited and controlled

General protection and hygiene measures

Observe standard industrial hygiene practices for the handling of chemical substances. Do not eat, drink or smoke when handling.

Personal protection equipment

Respiratory protection

No personal respiratory protective equipment normally required.

In case of mist, spray or aerosol exposure wears suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Filtering half-face mask, according to acknowledged standards such as EN 149.

Recommended Filter type: FFP1 or equivalent filter, according to acknowledged standards such as EN 149.

Observe the equipment manufacturer's information and wear time limits for respirators.

Eye protection

Recommendation: protective goggles.

Hand protection

Use of protective gloves is recommended when handling the material.

Recommended glove types: Protective gloves made of nitrile rubber

Thickness of the material: > 0, 1 mm

Breakthrough time: > 480 min

Recommended glove types: Protective gloves made of butyl rubber

Thickness of the material: > 0, 3 mm

Breakthrough time: > 480 min

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Note that, due to the numerous external influences (such as temperature), a chemically resistant protective glove in daily use may have a service life that is considerably shorter than the measured break through time.

Exposure to the environment limited and controlled

Prevent material from entering surface waters, drains or sewers and soil.

Further information for system design and engineering measures

Observe information in section 7. Observe national regulatory requirements.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance

Physical state / form	liquid
Color	colorless, clear
Odor	
Odor	odorless
Odor limit	
Odor limit	no data available
pH-Value	
pH-Value	approx.7
Melting point/freezing point	
Melting point / melting range	-50 °C
Initial boiling point and boiling range	
Boiling point / boiling range	not determinable
Flash point	
Flash point	> 300 °C
Evaporation rate	
Evaporation rate	no data available
Upper/lower flammability or explosive limits	
Lower explosion limit (LEL)	not applicable
Upper explosion limit (UEL)	not applicable
Vapor pressure	
Vapor pressure	not applicable
Solubility (ies)	
Water solubility / miscibility	virtually insoluble at 20 °C
Vapor density	
Relative gas/vapor density	no data known
Relative Density	
Density	approx. 0, 97 g/cm³ (25 °C)
Partition coefficient: n-octane/water	
Partition coefficient: n-octane/water	No data known.
Auto-ignition temperature	
Ignition temperature	410 °C
Decomposition temperature	
Thermal decomposition	Decomposition begins at > 250 °C
Viscosity	
Viscosity (dynamic)	12500 mPa.s at 25 °C
Viscosity (kinematic)	approx. 100 mm²/s at 25 °C
Molecular mass	
Molecular mass	no data available
Other information	
No data available.	

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)

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 period: 1 a	literature (Polydimethylsiloxane)

Aspiration hazard

Assessment:

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

Further toxicological 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

Assessment:

Polymer component: insoluble in water; adsorbs on soil.

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

None known

SECTION 13:Disposal considerations

Waste treatment methods

Material

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.

Uncleaned packaging

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.

Waste Disposal Legislation Ref.No.(EC)

It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

SECTION 14:Transport Information

UN number; UN proper shipping name; Transport hazard class (es); Packing group

Road ADR

Not regulated for transport

Railway RID

Not regulated for transport

Transport by sea IMDG-Code

Not regulated for transport

Air transport ICAO-TI/IATA-DGR:

Not regulated for transport

Environmental hazards

Hazardous to the environment: no.

Special precautions for user

Relevant information in other sections has to be considered.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Bulk transport in tankers is not intended.

SECTION 15:Regulatory Information

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.