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

### Product Identifier

Product Name: SiSiB® PC5132  
 Chemical Name: Triethoxy(methyl)silane  
 CAS-No.: 2031-67-6  
 EC-No.: 217-983-9

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

Relevant applications identified For industrial use  
 Raw material  
 Surface modifier

### 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)[CLP]

Flammable liquids Category 3 H226

### Label elements

#### Labeling as per (EU) 1272/2008)

Statutory basis EU-CLP as per Regulation (EU) No.1272/2008  
 Symbol(s)



Signal word Warning  
 Hazard statement Flammable liquid and vapor.  
 H226  
 Precautionary statement Prevention:  
 P210 Keep away from heat/sparks/open flames/hot surfaces.  
 No smoking.  
 P243 Take precautionary measures against static discharge.

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P280	Wear protective gloves/protective clothing/eye protection.
Precautionary statement Reaction: P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Precautionary statement Storage: P403 + P235	Store in a well-ventilated place. Keep cool.
Precautionary statement Disposal: P501	Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

## SECTION 3: Composition/information on ingredients

### Substances

Information on ingredients / Hazardous components as per EU-CLP Regulation (EC) No.1272/2008

#### Triethoxy(methyl)silane

CAS-No.	2031-67-6	
EC-No.	217-983-9	
Flammable liquids	Category 3	H226
Texts of H phrases see in Chapter 16.		

## SECTION 4: First aid measures

### Description of first aid measures

Take off all contaminated clothing immediately.

#### Inhalation:

If aerosol or mists are formed:

Move victims into fresh air.

#### Skin contact:

Wash off immediately with plenty of water.

Consult a doctor in the event of permanent skin irritation.

#### Eye contact:

With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes.

Continue rinsing process with eye rinsing solution.

Protect unharmed eye.

Call ambulance. (Cue: caustic burn of the eyes)

Immediate further treatment in eye clinic/by eye doctor. Continue rinsing eye until arrival at ophthalmic

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hospital.

**Ingestion:**

Have the mouth rinsed with water.

Only when patient fully conscious:

Have patient drink plenty of water in small sips.

Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:**

None known

**Indication of any immediate medical attention and special treatment needed**

After absorbing large amounts of substance:

Administration of activated charcoal

Acceleration of gastrointestinal passage

## SECTION 5: Firefighting measures

**Extinguishing media**

Suitable extinguishing media:

- Water spray
- Foam
- Carbon dioxide (CO<sub>2</sub>)
- Dry powder

Unsuitable extinguishing media: high volume water jet

**Special hazards arising from the substance or mixture**

Standard procedure for chemical fires

**Advice for firefighters**

**Special protective equipment for firefighters:**

Water used to extinguish fire should not enter drainage systems, soil or stretches of water.

Ensure there are sufficient retaining facilities for water used to extinguish fire.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

In case of fire: wear a self-contained respiratory apparatus.

## SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment.

Keep away from sources of ignition.

No smoking.

**Environmental precautions:**

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Do not allow entrance in sewage water, soil stretches of water, groundwater, and drainage systems.

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Fill into marked, sealable containers.

To be disposed of in compliance with existing regulations.

**Reference to other sections**

Wear personal protective equipment; see section 8.

Disposal considerations: see section 13.

## SECTION 7: Handling and storage

**Precautions for safe handling**

Application, processing: Provide good ventilation or extraction.

**Conditions for safe storage, including any incompatibilities**

**Advice on protection against fire and explosion**

Take precautionary measures against static charges; keep away from sources of ignition.

Explosion protection equipment required.

Danger of explosion from residual product fumes; therefore avoid spark production through cutting, grinding, or welding work in the area of the container.

When repairs of the production system are to be made (e.g. welding work), the section to be repaired must be essentially free of product.

**Storage:**

Keep containers tightly closed in a cool, well-ventilated place.

Protect from moisture.

**Specific end use(s)**

No further information available

Applications: see Section 1.

## SECTION 8: Exposure controls/personal protection

**Control parameters**

**Other information**

No substance-specific limiting value being known.

**Exposure controls**

**Engineering measures**

Provide adequate ventilation.

**Personal protective equipment**

**Respiratory protection**

In case of dusts/vapors/aerosols being formed or if the limit values like TLV are exceeded:

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Use respiratory equipment with suitable filter (filter type ABEK) or wear a self-contained respiratory apparatus.

Use only respiratory protection equipment with CE-symbol including four digit test number.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Note time limit for wearing respiratory protective equipment.

### Hand protection

Glove material for example, butyl-rubber

Material thickness 0.5 mm

Break through time  $\geq$  480 min

Glove material for example, Fluorinated rubber (Viton)

Material thickness 0.4 mm

Break through time  $\geq$  480 min

Selection of protective gloves to meet the requirements of specific workplaces.

Suitability for specific workplaces should be clarified with protective glove manufacturers.

The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials.

Please observe that the daily duration of usage of a chemical protective glove is in practice far shorter due to the many influencing factors (e.g. temperature, mechanical strain on the glove material) than the permeation time determined acc. EN 374.

### Eye protection

Close-fitting protective goggles (e.g. closed goggles)

### Skin and body protection

Suitable protective clothing - Use disposable clothing if appropriate.

### Hygiene measures

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.

Remove immediately all contaminated clothing.

Wash contaminated clothing before re-use.

### Protective measures

Handle in accordance with good industrial hygiene and safety practice.

The personal protective equipment used must meet the requirements of directive 89/686/EEC and amendments (CE certification).

If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

Do not breathe in vapors or aerosols.

## SECTION 9: Physical and chemical properties

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## Information on basic physical and chemical properties

Appearance:

Form	liquid
Color:	colorless
Physical state	liquid (20 °C) (1013 hPa)
Odor:	faint
PH:	not determined
Melting point/range	< -40 °C (Literature value)
Boiling point/range	142 °C (1013 hPa)
Method:	DIN 51 356
Flash point:	30°C
Method	DIN EN ISO 13736
Evaporation rate	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Vapor pressure:	100 Pa (25 °C)
Density:	0, 89 g/cm <sup>3</sup> (20 °C)
Method	DIN 51757
Water solubility:	2900 mg/l (20 °C)
Method:	QSAR-Method Not miscible Decomposition by hydrolysis
Partition coefficient: n-octanol/water	log Pow: -2, 4
Method:	QSAR-Method
Thermal decomposition	not determined
Viscosity, dynamic	0, 6 mPa.s (20 °C)
Method:	DIN 53015
Explosiveness	not explosive
<b>Other information</b>	
Ignition temperature	220 °C
Method:	DIN 51794

## SECTION 10: Stability and reactivity

### Reactivity

No dangerous reaction known under conditions of normal use.

### Chemical stability

Stable under recommended storage conditions

### Possibility of hazardous reactions

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Vapors may form explosive mixture with air.

**Conditions to avoid**

Keep away from heat and sources of ignition.

Protect from moisture. In the presence of oxygen and heat, the ethanol forming during the reaction may produce acetaldehyde.

Material may form acetaldehyde when heated with inorganic pigments in the presence of air.

**Incompatible materials**

Water, Acids, Alkaline.

**Hazardous decomposition products**

Ethanol in case of hydrolysis.

Alcohol formed by hydrolysis lowers the flash point of the product.

## SECTION 11: Toxicological information

**Information on toxicological effects**

**Acute oral toxicity**

LD50 Rat: 2000 mg/kg  
 Method: OECD Test Guideline 401  
 Assessment: The substance or mixture has no acute oral toxicity.

**Acute inhalation toxicity**

LC50 Rat: > 13, 5 mg/l / 4 h / Aerosol  
 Method: OECD Test Guideline 403

**Acute dermal toxicity**

LD50 Rat: > 2000 mg/kg  
 Method: OECD Test Guideline 402  
 Assessment: The substance or mixture has no acute dermal toxicity.

**Skin irritation**

Rabbit  
 No skin irritation  
 Method: OECD Test Guideline 404

**Eye irritation**

Rabbit  
 No eye irritation  
 Method: OECD Test Guideline 405

**Sensitization**

Maximization Test Guinea pig: Does not cause skin sensitization.  
 Method: OECD Test Guideline 406

**Repeated dose toxicity**

Oral Rat  
 NOAEL: 65, 5 mg/kg  
 Method: OECD TG 422

**Repeated dose toxicity**

Species: Rat

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Application Route: inhalative  
 Exposure duration: 90-day  
 NOAEC: 733, 6 mg/m<sup>3</sup>  
 Method: OECD TG 413

**Assessment of STOT single exposure**

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Assessment of STOT repeat exposure**

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Risk of aspiration toxicity: No evidence of aspiration toxicity.

**Gentoxicity in vitro**

Ames test Salmonella typhimurium

Negative

Method: OECD TG 471

Chromosomal aberration TK +/- mouse lymphoma cell (L5178Y)

Negative

Method: OECD TG 473

Gene mutation TK +/- mouse lymphoma cell (L5178Y)

Negative

Method: OECD TG 476

**Carcinogenicity**

No evidence that cancer may be caused.

**Toxicity to reproduction**

Screening for reproductive/developmental toxicity Oral Rat

NOAEL (No Observed Adverse Effect Level) of parents: 1310 mg/kg

Method: OECD TG 422

## SECTION 12: Ecological information

**Toxicity**

**Toxicity to fish**

LC50 Danio rerio (zebra fish): > 500 mg/l / 96 h

Method: OECD TG 203

**Toxicity in aquatic invertebrates**

EC50 Daphnia magna (Water flea): > 500 mg/l / 48 h

Method: OECD TG 202

**Toxicity to algae**

EC50 Pseudokirchneriella subcapitata: > 500 mg/l / 72 h

Method: OECD TG 201

**Toxicity to bacteria**



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EC50 local activated sludge: > 100 mg/l / 3 h

Method: OECD TG 209

**Persistence and degradability**

Biodegradability Not readily biodegradable.

**Bio-accumulative potential**

Bioaccumulation Low

**Mobility in soil**

Mobility Adsorption on the floor: low.

**Results of PBT and vPvB assessment**

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

**Other adverse effects**

Further Information The data we have at our disposal do not necessitate identification concerning environmental hazard.

## SECTION 13: Disposal considerations

**Waste treatment methods**

**Product:**

With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

**Uncleaned packaging**

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

If there is product residue in the emptied container, follow directions for handling on the container's label.

Incorrect disposal or reuse of this container is illegal and can be dangerous.

Other countries: observe the national regulations.

**Waste Key Number**

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer.

The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

## SECTION 14: Transportation information

**Transport on land (ADR/RID/GGVSEB)**

UN number UN 1993

UN proper shipping name FLAMMABLE LIQUID, N.O.S.(triethoxy(methyl)silane)

Transport hazard class(es) 3

Packing group III

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Environmental hazards --  
 Special precautions for user Yes  
 ADR Tunnel Restriction Code: (D/E)  
 ADR Special provision 640E  
 RID Special provision 640E

**Inland waterway transport (ADN/GGVSEB (Germany))**

UN number: UN 1993  
 UN proper shipping name: FLAMMABLE LIQUID, N.O.S.(triethoxy(methyl)silane)  
 Transport hazard class (es): 3  
 Packing group: III  
 Environmental hazards: --  
 Special precautions for user: Yes  
 Special provision 640E

**Air transport ICAO-TI/IATA-DGR**

UN number: UN 1993  
 UN proper shipping name: FLAMMABLE LIQUID, N.O.S.(triethoxy(methyl)silane)  
 Transport hazard class(es): 3  
 Packing group: III  
 Environmental hazards: --  
 Special precautions for user: Yes  
 IATA-C: ERG-Code 3L  
 IATA-P: ERG-Code 3L

**Sea transport IMDG-Code/GGVSee (Germany)**

UN number: UN 1993  
 UN proper shipping name: FLAMMABLE LIQUID, N.O.S.(triethoxy(methyl)silane)  
 Transport hazard class(es): 3  
 Packing group: III  
 Environmental hazards: --  
 Special precautions for user: No  
 EmS: F-A, S-D

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:**

For transport approval see regulatory information

## SECTION 15: Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**National legislation**

Major Accident Hazard Legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

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listing: FLAMMABLE LIQUIDS (P5c)

Quantity: 5000t 50000t

**Chemical safety assessment**

No substance-related safety assessment is necessary / has been conducted for this product.

**SECTION 16: Other information**

**Relevant H phrases from chapter 3**

H226: Flammable liquid and vapor.

**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.