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

### Product Identifier

Product Name: SiSiB® PC1951  
 Chemical Name: N-[3-(trimethoxysilyl)propyl]butylamine  
 CAS-No.: 31024-56-3  
 EC-No.: 250-437-8

### 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 [CLP]

Skin irritation	Category 2	H315
Serious eye damage	Category 1	H318

### Label elements

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

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



Symbol(s)

Signal word Danger

Hazard statement

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statement Prevention

P280 Wear protective gloves/protective clothing/eye protection.

Precautionary statement Reaction

P302 + P352 IF ON SKIN: Wash with plenty of water/ soap.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

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P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER/doctor.

**Other hazards**

Not a PBT, vPvB substance as per the criteria of the REACH Regulation.

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

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

**N-[3-(trimethoxysilyl)propyl ]butylamine**

CAS-No. 31024-56-3

EC-No. 250-437-8

Skin irritation

Category 2

H315

Serious eye damage

Category 1

H318

**Methanol** < 1%

CAS-No. 67-56-1

EC-No. 200-659-6

Flammable liquids

Category 2

H225

Acute toxicity (Oral)

Category 3

H301

Acute toxicity (Dermal)

Category 3

H311

Acute toxicity (Inhalation)

Category 3

H331

Specific target organ toxicity

Category 1

H370

- single exposure

Texts of H phrases, see in Chapter 16

**Mixtures**

-

**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.

In case of persistent discomfort: Consult doctor immediately.

**Skin contact**

Wash off immediately with plenty of water.

Consult a doctor in the event of permanent skin irritation.

**Eye contact**

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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 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

After absorbing large amounts of substance:

Liberation of reaction products (Methanol) can lead to symptoms of poisoning.

Possible signs of poisoning:

daze, dizziness, nausea, colicky abdominal pain, respiratory disturbance.

Symptoms upon increasing intoxication: dysopia, loss of eyesight.

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

If required, therapy of irritative effect.

Treatment:

Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear. If necessary, aspirate leftover substance.

Detection of substance (Methanol) possible in:

Blood

Antidote treatment: ethanol.

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

Water spray jet

Foam

Carbon dioxide (CO<sub>2</sub>)

Dry powder

#### Unsuitable extinguishing media

High volume water jet

### Special hazards arising from the substance or mixture

Hazardous fumes in fires, specific to the product: nitrogen oxides (NO<sub>x</sub>)

### Advice for firefighters

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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. Ensure adequate ventilation.

**Environmental precautions**

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

**Methods and materials 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.

Suitable binder: sand (for damming up), sawdust

**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**

Keep away from sources of ignition - No smoking.

**Storage**

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

Protect from moisture.

**Specific end use(s)**

For more details see annexes Exposure scenario.

**SECTION 8: Exposure Controls/Personal Protection****Control parameters****Methanol**

CAS-No. 67-56-1

EC-No. 200-659-6

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Control parameters Skin designation:(EU ELV)

Can be absorbed through the skin.

Control parameters 200 ppm  
260 mg/m<sup>3</sup>  
Indicative

Time Weighted Average (TWA) :( EU ELV)

**DNEL/DMEL values**

End Use Worker  
Routes of exposure Inhalation  
Possible health damage Long-term systemic effects  
Value 17,44 mg/m<sup>3</sup>

End Use Worker  
Routes of exposure Inhalation  
Possible health damage Acute systemic effects  
Remarks not applicable

End Use Worker  
Routes of exposure Inhalation  
Possible health damage Long-term local effects  
Remarks not applicable

End Use Worker  
Routes of exposure Inhalation  
Possible health damage Acute local effects  
Remarks not applicable

End Use Worker  
Routes of exposure dermal  
Possible health damage Long-term systemic effects  
Value 2,47 mg/kg bw/day

End Use Worker  
Routes of exposure dermal  
Possible health damage Acute systemic effects  
Value not applicable

End Use Worker  
Routes of exposure dermal  
Possible health damage Long-term local effects

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Remarks	not applicable
End Use	Worker
Routes of exposure	dermal
Possible health damage	Acute - local effects
Remarks	not applicable
End Use	general populace
Routes of exposure	Inhalation
Possible health damage	Long-term systemic effects
Value	3,07 mg/m3
End Use	general populace
Routes of exposure	Inhalation
Possible health damage	Acute systemic effects
Remarks	not applicable
End Use	general populace
Routes of exposure	Inhalation
Possible health damage	Long-term local effects
Remarks	not applicable
End Use	general populace
Routes of exposure	Inhalation
Possible health damage	Acute local effects
Remarks	not applicable
End Use	general populace
Routes of exposure	dermal
Possible health damage	Long-term local effects
Remarks	0,88 mg/kg bw/day
End Use	general populace
Routes of exposure	dermal
Possible health damage	Acute systemic effects
Remarks	not applicable
End Use	general populace
Routes of exposure	dermal
Possible health damage	Long-term local effects

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Remarks not applicable

End Use general populace

Routes of exposure dermal

Possible health damage Acute - local effects

Remarks not applicable

End Use general populace

Routes of exposure Oral

Possible health damage Long-term systemic effects

Value 0,883 mg/kg bw/day

End Use general populace

Routes of exposure Oral

Possible health damage Acute systemic effects

Remarks not applicable

### PNEC values

#### Fresh water

Value 0,2 mg/l

#### Marine water

Value 0,02 mg/l

#### water - intermittent releases

Value 2 mg/l

#### Fresh water sediment

Value 0,767 mg/kg dry weight

#### Marine sediment

Value 0,767 mg/kg dry weight

#### Soil

Value 0,036 mg/kg dry weight

#### sewage treatment plant (STP)

Value 10 mg/l

### Exposure controls

#### Engineering measures

Application, processing: Provide good ventilation or extraction.

#### Personal protective equipment

#### Respiratory protection

In case of dusts/vapors/aerosols being formed or if the limit values like TLV are exceeded: 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	>= 480 min
Glove material	for example, Fluorinated rubber (Viton)
Material thickness	0,4 mm
Break through time	>= 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)

#### Hygiene measures

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

Remove contaminated or saturated 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.

Avoid contact with skin and eyes.

## SECTION 9: Physical and Chemical Properties

#### Information on basic physical and chemical properties

Appearance	Form: liquid
Color	colorless to slightly yellow
Physical	state liquid (20 °C) (1013 hPa)
Odor	slightly ammoniacal
Odor Threshold	no data available



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pH	10,9 (20 g/l) (20 °C)
Melting point/range	< -38,0 °C (1013 hPa) Method: ISO 3841
Boiling point/range	238 °C (1013 hPa) Method: DIN 51 751
Flash point:	> 95 °C Method: DIN EN ISO 2719 (Pensky-Martens, Closed Cup)
Evaporation rate	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure:	< 0,1 hPa (20 °C) Method: AN-SOP 1024
Density	0,947 g/cm <sup>3</sup> (20 °C) Method: DIN 51757
Water solubility	not miscible decomposition by hydrolysis
Partition coefficient: n-octanol/ water	log Pow: 2,2 (20 °C) Method: QSAR
Thermal decomposition	no data available
Viscosity, dynamic	2,5 mPa.s (20 °C) Method: DIN 53 015
Explosiveness	not explosive
<b>Other information</b>	
Ignition temperature	260 °C Method: DIN 51 794

## 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

Exothermic reaction with: acids

### Conditions to avoid

Protect from moisture.

### Incompatible materials

Acids

### Hazardous decomposition products

Methanol in case of hydrolysis.

**SECTION 11: Toxicological Information****Information on toxicological effects**

Acute oral toxicity	LD50 Rat: 12825 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	In accordance with Section 8.5 in column 2 of REACH Annex VIII, no testing of the acute inhalation toxicity is required.
Acute dermal toxicity	LD50 Rabbit: 15200 mg/kg Method: OECD Test Guideline 402
Skin irritation	Rabbit Skin irritation Method: OECD Test Guideline 404
Eye irritation	Rabbit Risk of serious damage to eyes. Method: OECD Test Guideline 405
Sensitization	Buehler Test Guinea pig: Does not cause skin sensitization. Method: OECD Test Guideline 406
Repeated dose toxicity	Oral Rat NOAEL: >= 500 mg/kg Method: OECD TG 422
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 gene mutation Chinese hamster (CHO K1 -cells) negative Method: OECD TG 476 Test substance: Structurally similar substance chromosomal aberration Chinese hamster (V 79 -cells) negative Method: OECD TG 473 Test substance: Structurally similar substance
Carcinogenicity	No evidence that cancer may be caused.
Toxicity to reproduction	Screening for reproductive/developmental toxicity Oral Rat Number of exposures: daily

NOAEL (No Observed Adverse Effect Level) of parents:

>= 500 mg/kg

Method: OECD TG 422

Test substance: Structurally similar substance

## SECTION 12: Ecological Effects

### Toxicity

Toxicity to fish

LC50 Oncorhynchus mykiss (rainbow trout): > 100 mg/l / 96 h

Test substance: Structurally similar substance

Method: OECD TG 203

Toxicity in aquatic invertebrates

EC50 Daphnia magna (Water flea): > 100 mg/l / 48 h

Test substance: Structurally similar substance

Method: OECD Test Guideline 202

Toxicity to algae

EC50 Pseudokirchneriella subcapitata (green algae): > 100 mg/l / 72 h

Test substance: Structurally similar substance

Method: OECD TG 201

Toxicity to bacteria

EC 20 local activated sludge: 203 mg/l / 3 h

Test substance: Structurally similar substance

Method: OECD TG 209

### Persistence and degradability

Biodegradability

Exposure time: 28 d

Result: 24,7 % Not readily biodegradable.

Method: OECD TG 301 B

### Bioaccumulative potential

low

### Mobility in soil

Adsorption on the floor: low.

### Results of PBT and vPvB assessment

Not a PBT, vPvB substance as per the criteria of the REACH Regulation.

### Other adverse effects

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.

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**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:Transport Information****Not dangerous according to transport regulations.**

14.1. UN number:	--
14.2. UN proper shipping name:	--
14.3. Transport hazard class(es):	--
14.4. Packing group:	--
14.5. Environmental hazards:	--
14.6 Special precautions for user:	No

**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.

listing: not applicable

**Chemical Safety Assessment**

A substance safety assessment was carried out for this product.

**SECTION 16:Other Information****Relevant H phrases from chapter 3**

H225:	Highly flammable liquid and vapor.
H301:	Toxic if swallowed.
H311:	Toxic in contact with skin.

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H315:	Causes skin irritation.
H318:	Causes serious eye damage.
H331:	Toxic if inhaled.
H370:	Causes damage to organs.

#### 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.