

Version 5.1R	Page 1 / 13	Revision Date 11.05.2018
--------------	-------------	--------------------------

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

### Product Identifier

Product Name: SiSiB® PC1110  
 Chemical Name: 3-(Trimethoxysilyl)propylamine  
 CAS-No.: 13822-56-5  
 EC-No.: 237-511-5

### 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[EU-GHS/CLP]

Skin irritation	Category 2	H315
Serious eye damage	Category 1	H318

### Label elements

#### Labelling according Regulation (EC) No 1272/2008 [CLP]

Symbol(s)



Signal word	Danger
Hazard statement(s)	
H315	Causes skin irritation.
H318	Causes serious eye damage.
Precautionary statements:	
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P352	IF ON SKIN: Wash with plenty of water/ soap.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes.

Version 5.1R	Page 2 / 13	Revision Date 11.05.2018
--------------	-------------	--------------------------

Remove contact lenses, if present and easy to do.  
Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P501 Dispose of contents/container to waste disposal.

**Other hazards**

Inhalation of aerosol spray may damage health.

The product hydrolyses under formation of methanol (CAS-No. 67-56-1). Methanol is classified concerning both physical and health hazards. The hydrolysis rate and consequently the relevance for the hazard profile of the product is strongly dependent on the specific conditions.

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

CAS No.: 13822-56-5

**Hazardous ingredients**

Type	CAS No.	EC-No.	Material	Content	Classification according to Regulation (EC) No. 1272/2008*	Comment
INHA	13822-56-5	237-511-5	3-(Trimethoxysilyl) propylamine	>=97%	Skin Irrit. 2; H315 Eye Dam. 1; H318	[1]

Type: INHA: ingredient, VERU: impurity

[1] = Hazardous or environmentally harmful substance; [2] = substance with a Community workplace exposure limit; [3] = PBT substance; [4] = vPvB substance

\*Classification codes are explained in section 16.

**Mixtures**

Not applicable

**SECTION 4: First aid measures****Description of first aid measures****General information:**

Take persons to a safe place. Observe self-protection for first aid. Seek medical advice in the event of contact with this substance.

**If inhaled**

Keep the patient calm. Protect against loss of body heat. Seek medical advice and clearly identify substance.

Version 5.1R

Page 3 / 13

Revision Date 11.05.2018

**In case of skin contact**

Remove contaminated or soaked clothing. Wash off with plenty of water or water and soap immediately for 10-15 minutes. In serious cases, use emergency shower immediately. Seek medical advice and clearly identify substance.

**In case of eye contact**

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Continue to bathe eyes during transport to medical practitioner. Seek medical advice immediately and clearly identify substance.

**If swallowed**

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice and clearly identify substance.

**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 , nitrogen oxides , incompletely burnt hydrocarbons , toxic and very toxic fumes .

**Advice for firefighters****Special protective equipment for fire fighting:**

Use respiratory protection independent of recirculated air. Keep unprotected persons away.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Do not inhale gases/vapors/aerosols. If material is released indicate risk of slipping. Do not walk through spilled material.

**Environmental precautions:**

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 and materials for containment and 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.

**Further information:**

Exhaust vapors. Eliminate all sources of ignition. Consider explosion protection. Observe notes under section 7.

**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****Precautions for safe handling:**

Ensure adequate ventilation. Must be syphoned off in situ. Spilled substance increases risk of slipping. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection.) Observe information in section 8. Keep away from incompatible substances in according with section 10.

**Precautions against fire and explosion:**

Product can separate methanol. Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.

**Conditions for safe storage, including any incompatibilities****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. Protect against moisture. Store container in a well ventilated place.

**Specific end use(s)**

no data available

Version 5.1R	Page 5 / 13	Revision Date 11.05.2018
--------------	-------------	--------------------------

## SECTION 8: Exposure Controls/Personal Protection

### Control parameters

#### Maximum airborne concentrations at the workplace:

CAS No.	Material	Type	Mg/m <sup>3</sup>	ppm	Dust fract	Fibre/m <sup>3</sup>
67-56-1	Methanol	OEL	266,0	200.0		
	Aerosol-inhalable fraction		10,0			

The aerosol limit specified is a recommendation should aerosol be formed during processing.

### 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 inhale gases/vapors/aerosols. Use with adequate ventilation. Avoid contact with eyes and skin. Preventive skin protection recommended. Remove contaminated, soaked clothing immediately. Clean work areas regularly. Provide emergency shower and eye-bath. Do not eat, drink or smoke when handling. Keep away from foodstuff, drink and feedingstuff.

#### Personal protection equipment

##### Respiratory protection

If inhalative exposure above the occupational exposure limit cannot be excluded, adequate respiratory protection equipment must be used. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136. Recommended Filter type: Gas filter type ABEK (certain inorganic, organic and acidic gases and vapors; ammonia/amines), according to acknowledged standards such as EN 14387

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136.

Recommended Filter type: Combined filter type ABEK-P2 (certain inorganic, organic and acidic gases and vapors: ammonia/amines; particles), according to acknowledged standards such as EN 14387

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

##### Eye protection

Tight fitting safety goggles.

##### Hand protection

Gloves are required at all times when handling the material.

Recommended glove types: Protective gloves made of butyl rubber  
thickness of the material: > 0,3 mm

Breakthrough time: > 480 min

Recommended glove types: Protective gloves made of nitrile rubber  
thickness of the material: > 0,4 mm

Version 5.1R

Page 6 / 13

Revision Date 11.05.2018

Breakthrough time: 10 - 30 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.

#### Skin protection

If handled uncovered: Chemical protective clothing, full-body liquid-tight protection if necessary. Please observe the instructions regarding permeability time which are provided by the supplier.

#### 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	Form: liquid
Color	colorless
Odor	characteristic
Odor limit	no data available
pH	not determined
Melting point/melting range	< -60 ° C
Boiling point/boiling range	210 ° C at 1013 hPa
Flash point:	79 <sup>0</sup> C (Method: EN 22719)
Evaporation rate	no data available
Upper/lower flammability	no data available
Vapor pressure:	0, 17 hPa / 20 ° C (Method: EU-GL.A.4) 1, 7 hPa / 50 ° C (Method: EU-GL.A.4) 34 hPa / 100 ° C (Method: EU-GL.A.4)
Water solubility/miscibility:	Not applicable. Reacts violently with water
Relative gas/vapor density	1,01
Relative Density:	1,014 (25 ° C) (Water/ 4 ° C = 1,00)
Density :	1,014 g/cm <sup>3</sup> (25 ° C)
Partition coefficient: n-octanol/water	no data available
Ignition temperature	300° C
Viscosity (dynamic)	no data available
Molecular mass	179,3

### Other information

Version 5.1R

Page 7 / 13

Revision Date 11.05.2018

no data available

**SECTION 10: Stability And Reactivity****Reactivity; Chemical stability; Possibility of hazardous reactions**

If stored and handled in accordance with standard industrial practices no hazardous reactions are known. Relevant information can possibly be found in other parts of this section.

**Conditions to avoid**

moisture, Heat, open flames, and other sources of ignition.

**Incompatible materials**

Reacts with: water, basic substances and acids. Reaction causes the formation of: methanol

**Hazardous decomposition products**

By hydrolysis: methanol. Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 ° F) through oxidation.

**SECTION 11: Toxicological Information****Information on toxicological effects****Acute toxicity****Assessment**

Based on the available data acute toxic effects are not expected after single oral exposure. Based on the available data acute toxic effects are not expected after single dermal exposure.

**Product details:**

Route of exposure	Result/Effect	Species/Test system	Source
Oral	LD50: 2,97 mL/kg	Rat	Test report
Dermal	LD50: 11,3 mL/kg	Rabbit	Test report
By inhalation(vapor)	;6hNo mortality at room temperature in highly enriched or saturated atmosphere.	Rat	Literature

**Skin corrosion/irritation****Assessment:**

After contact to the skin irritation of the skin are to be expected.

**Product details:**

Result/Effect	Species/Test system	Source
irritating	Rabbit	Test report OECD 404

**Serious eye damage/eye irritation****Assessment:**

After contact to the eyes irreversible effects must be expected.

Version 5.1R	Page 8 / 13	Revision Date 11.05.2018
--------------	-------------	--------------------------

**Product details:**

Result/Effect	Species/Test system	Source
Serious damages to eyes	Rabbit	Test report

**Respiratory or skin sensitization**

**Assessment:**

Based on the available data a sensitization reaction is not expected from this product.

**Product details:**

Route of exposure	Result/Effect	Species/Test system	Source
dermal	Not sensitizing	guinea-pig; Magnusson-Kligman	Test report OECD 406

**Germ cell mutagenicity**

**Product details**

Result/Effect	Species/Test system	Source
negative	Mutation assay(in vitro) Bacterial cells	test report OECD 471
negative	Mutation assay(in vitro) Mammalian cells	test report (read across substance) OECD 476
negative	Chromosome aberration assay(in vitro) Mammalian cells	test report (read across substance) OECD 473
negative	Micro nucleus assay(in vivo) Mouse Intraperitoneal; erythrocytes	test report (read across substance) OECD 474

**Carcinogenicity**

**Assessment**

Based on the available toxicological data no specific evaluation of the carcinogenic potential is scientifically implicated.

**Reproductive toxicity**

**Product details:**

Result/Effect (Examinations of developmental toxicity and teratogenicity)	Species/Test system	Source
NOAEL (developmental): 100 mg/kg NOAEL (maternal): 100 mg/kg Symptoms/effect: Fetus: skeletal variations. Dams: Reduced body weight gain, increased mortality.	Developmental toxicity study Rat Oral(gavage); day 6-17 of gestation	Test report (read-across substance) EPA OTS 798.4900

**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**

**Product details:**

Result/Effect	Species/Test system	Source
---------------	---------------------	--------



Version 5.1R	Page 9 / 13	Revision Date 11.05.2018
--------------	-------------	--------------------------

NOAEL: 200 mg/kg LOAEL: 600 mg/kg Target organs: liver	Subchronic study Rat(both sexes) Oral(gavage) 90d;7 d/w	Test report(read-across substance) OECD 408
LOAEC: 0,147 mg/l Target organs: respiratory tract	Rat(male) By inhalation(spray) 28d;5 d/w	Test report(read-across substance)

**Aspiration hazard****Assessment:**

Based on the physical-chemical properties of the product no aspiration hazard must be expected.

**Further toxicological information**

Hydrolysis product / impurity: Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure.

**SECTION 12: Ecological Effects****Toxicity****Assessment:**

No expected damaging effects to aquatic organisms.

**Product details:**

Result/Effect	Species/Test system	Source
LC50: > 934 mg/l (measured)	Semistatic zebra fish (Danio rerio) (96 h)	test report(read across substance) OECD 203
EC50: 331 mg/l (nominal)	static Daphnia magna (48 h)	test report (read across substance) OECD 4202
IC50 (growth rate):> 1000 mg/l (nominal)	static Pseudokirchneriella subcapitata (72 h)	test report (read across substance) OECD 201
EC50 (oxygen consumption): 43 mg/l (nominal)	Pseudomonas putida	test report (read across substance)

**Persistence and degradability****Assessment:**

The product of hydrolysis (methanol) is readily biodegradable.

**Product details:****Biodegradation:**

Result	Test system/Method	Source
67 % / 28 d Not readily biodegradable.	DOC - decrease	test report (read across substance) OECD 301A

Version 5.1R	Page 10 / 13	Revision Date 11.05.2018
--------------	--------------	--------------------------

### Hydrolysis:

Result	Test system	Source
Half-life:8,5 h	pH 7; 24,7 °C	test report (read across substance) OECD 111
Half-life:4 h	pH 7; 20 °C	Calc. value

### Bioaccumulative potential

#### Assessment:

No adverse effects expected.

### Mobility in soil

#### Assessment:

No adverse effects expected.

### Results of PBT and vPvB assessment

no data available

### Other adverse effects

no data available

## 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 packing

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:**

Version 5.1R	Page 11 / 13	Revision Date 11.05.2018
--------------	--------------	--------------------------

Valuation: Not regulated for transport

**Railway RID:**

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

**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

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

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

**Relevant regulations:**

SI 2002/1689: CHIP Regulations 2002

SI 2002/2677: COSHH Regulations 2002

SI 1999/3242: Management of Health & Safety at Work Regulations 1999

Health & Safety at Work Act 1974

SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations.

Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.

**Other specifications, restrictions and prohibitions:**

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

**Chemical safety assessment**

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

**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

Version 5.1R	Page 12 / 13	Revision Date 11.05.2018
--------------	--------------	--------------------------

New Zealand:	inventory. <b>NZIoC</b> (New Zealand Inventory of Chemicals): This product is listed in, or complies with, the substance inventory. (For a correct interpretation of the New Zealand status, additional information like GHS classification or Group Standard is required.)
Australia:	<b>AICS</b> (Australian Inventory of Chemical Substances): This product is listed in, or complies with, the substance inventory.
People's Republic of China:	<b>IECSC</b> (Inventory of Existing Chemical Substances in China): This product is listed in, or complies with, the substance inventory.
Canada:	<b>DSL</b> (Domestic Substance List): This product is listed in, or complies with, the substance inventory.
Philippines:	<b>PICCS</b> (Philippine Inventory of Chemicals and Chemical Substances): This product is listed in, or complies with, the substance inventory.
United States of America (USA):	<b>TSCA</b> (Toxic Substance Control Act Chemical Substance Inventory): This product is listed in, or complies with, the substance inventory.
Taiwan (Republic of China):	<b>TCSI</b> (Taiwan Chemical Substance Inventory): This product is listed in, or complies with, the substance inventory. General note: The Taiwanese chemicals regulation 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):	<b>REACH</b> (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.

Version 5.1R	Page 13 / 13	Revision Date 11.05.2018
--------------	--------------	--------------------------

## SECTION 16: Other Information

Explanation of the GHS classification code:

Skin Irrit. 2; H315 .....: Skin corrosion/irritation Category 2; Causes skin irritation.

Eye Dam. 1; H318.....: Serious eye damage I eye irritation Category 1; Causes serious eye damage.

### 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.