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

Product Name: SiSiB® PC4100
Chemical Name: Silane Coupling Agent
3-METHACRYLOXYPROPYLTRIMETHOXY-SILANE
CAS-No.: 2530-85-0
EC-No.: 219-785-8
REACH Registration Number: 01-2119513216-50-xxxx

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]**

Not a hazardous substance according to Regulation (EC) No. 1272/2008

Label elements**Labeling as per (EU) 1272/2008)**

Statutory basis

Labelling not required according to EU-CLP Ordinance (1272/2008).

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**

Formula $C_{10}H_{20}O_5Si$
Molecular Weight 248.35 g/mol
Remarks Not a hazardous substance or mixture.
Texts of H phrases, see in Chapter 16

Mixtures

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SECTION 4: First aid measures**If inhaled**

If aerosol or mists are formed:

If necessary: Provide with fresh air.

In case of skin contact

Wash off with plenty of water and soap.

In case of eye contact

Rinse thoroughly with plenty of water keeping eyelid open.

In case of persistent discomfort: Consult an ophthalmologist.

If swallowed

Have the mouth rinsed with water.

After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

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

None known

Hazards

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**

Use water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media

high volume water jet

Special hazards arising from the substance or mixture

Standard procedure for chemical fires.

Advice 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.

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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.

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).

Transfer 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**

Provide good ventilation or extraction.

Conditions for safe storage, including any incompatibilities**Advice on protection against fire and explosion**

Normal measures for preventive fire protection.

Storage:

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

Protect from heat and exposure to direct sunlight

Protect from moisture.

Specific end use(s)

No further information available

Applications; see Section 1.

SECTION 8: Exposure Controls/Personal Protection**Control parameters****DNEL/DMEL values**

Remarks not necessary (see chapter 15)

PNEC values

Remarks not necessary (see chapter 15)

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 0.5 mm

Break through time ≥ 120 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

Safety glasses

Skin and body protection

No special protective equipment required.

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.

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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 yellowish

Physical state

liquid (20 °C) (1013 hPa)

Odor:

slightly aromatic

Odor Threshold:

not determined

pH:

not determined

Melting point/range

< -20 °C

Boiling point/range

255 °C (1013 hPa)

Method:

DIN 51 356

Flash point:

110°C

Method

DIN EN ISO 2719 (Pensky-Martens, Closed Cup)

Evaporation rate

not determined

Lower explosion limit

0,9 %(V)

Upper explosion limit

5,4 %(V)

Vapor pressure:

< 0,10 hPa (20 °C)

Vapor density:

not determined

Density

1,04 g/cm³ (20 °C)

Method

DIN 51757

Water solubility:

not miscible
decomposition by hydrolysis

Partition coefficient: n-octanol/water

log Pow: 2,1 (21 °C)

Method

OECD TG 107

Auto inflammability

275 °C (1013,5 - 1030,7 hPa)

Method

EC Method A.15

Thermal decomposition

not determined

Viscosity, dynamic

2,8 mPa.s (20 °C)

Method:

DIN 53 015

Explosiveness

not explosive

Other information

Ignition temperature

not determined

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: peroxides

Conditions to avoid

Keep away from direct sunlight.

Protect from moisture.

Incompatible materials

Peroxides, water

Hazardous decomposition products

Methanol in case of hydrolysis.

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

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

LD50 Rat: > 2000 mg/kg

Method: OECD TG 423

Assessment: The substance or mixture has no acute oral toxicity

Skin corrosion/irritation

Rabbit

No skin irritation

Method: OECD Test Guideline 404

Serious eye damage/eye irritation

Rabbit

No eye irritation

Method : OECD Test Guideline 405

Respiratory or skin sensitization

Does not cause skin sensitization

Method: OECD Test Guideline 406

Acute dermal toxicity

LC50 Rat: > 2000 mg/kg

Method: OECD Test Guideline 402

Germ cell mutagenicity

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Carcinogenicity

No data available

Reproductive toxicity

Prenatal development toxicity study Oral Rat

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

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

Aspiration hazard

No evidence of aspiration toxicity

SECTION 12: Ecological Effects

Toxicity

Toxicity to fish

LC50 Brachydanio rerio: > 1042 mg/l / 96h

Method

OECD 203

LC0 Brachydanio rerio: 1042 mg/l / 96 h

Method

OECD 203

Toxicity in aquatic invertebrates

EC50 Daphnia magna: > 876 mg/l / 48 h

Method

OECD TG 202

Toxicity to algae

EC50 Desmodesmus subspicatus (green algae): > 536 mg/l / 72 h

Method

OECD TG 201

NOEC Desmodesmus subspicatus (green algae): 322 mg/l / 72 h

Method

OECD TG 201

Toxicity to bacteria

EC 10 Pseudomonas putida: 2200 mg/l / 16 h

Method

DIN 38412 part 8

NOEC local activated sludge: 1000 mg/l / 3 h

Method

OECD TG 209

Toxicity in other terrestrial nonmammals

LC50 Eisenia foetida foetida: > 1000 mg/kg / 14 d

Method

EC 88/302

Persistence and degradability

Biodegradability

Exposure time: 28 d

Result: 74 % Readily biodegradable.

Method: Directive 92/69/EEC C.4-D

Bioaccumulative potential

Bioaccumulation

not bioaccumulative

Mobility in soil

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Mobility

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

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

Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

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.****UN number** --**UN proper shipping name** --**Transport hazard class(es)** --**Packing group** --**Environmental hazards** --**Special precautions for user** Yes

Not dangerous according to transport regulations.

Protect against heat. As cool as possible. Minimum distance to heat sources under deck (e.g. heatable fuel tanks): 1 container position.

SECTION 15: Regulatory Information

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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

No exposure or risk assessment is required for this product since it is not classified for health or environmental risks.

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.