

Version 5.1R

Page 1 / 10

Revision Date 19.05.2018

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

Product Name: SiSiB® PC1100
Chemical Name: 3-Aminopropyl)triethoxysilane
CAS-No.: 919-30-2
EC-No.: 213-048-4

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

Relevant applications identified Laboratory chemicals, Manufacture of substances

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]**

Acute toxicity, Oral	Category 4	H302
Skin corrosion	Category 1B	H314
Skin sensitization	Category 1	H317

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xn, C, Xi

Harmful, Corrosive, Irritant R22, R34, R43

For the full text of the R-phrases mentioned in this Section, see Section 16.

Label elements**Labelling according Regulation (EC) No 1272/2008 [CLP]**

Pictogram



Signal word

Danger

Hazard statement(s)

H302

Harmful if swallowed.

Version 5.1R	Page 2 / 10	Revision Date 19.05.2018
--------------	-------------	--------------------------

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
Precautionary statement(s):	
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
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 or doctor/ physician.
Supplemental Hazard Statements	
none	
Other hazards	
None	

SECTION 3: Composition/information on ingredients

Substances

Synonyms	3-Triethoxysilylpropylamine APTES
Formula	C ₉ H ₂₃ NO ₃ Si
Molecular Weight	221.37 g/mol
CAS-No.	919-30-2
EC-No.	213-048-4

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
3-Aminopropyltriethoxysilane		
CAS-No. 919-30-2 EC-No. 213-048-4	Acute Tox. 4; Skin Corr. 1B; Skin Sens. 1; H302, H314, H317	<= 100 %

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
3-Aminopropyltriethoxysilane		
CAS-No. 919-30-2 EC-No. 213-048-4	Xn, R22 - R34 - R43	<= 100 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

Description of first aid measures

General advice

Version 5.1R

Page 3 / 10

Revision Date 19.05.2018

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NO_x), silicon oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air. Use water spray to cool unopened containers.

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

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Version 5.1R

Page 4 / 10

Revision Date 19.05.2018

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store under inert gas. Moisture sensitive. Storage class (TRGS 510): Combustible, corrosive hazardous materials

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

SECTION 8: Exposure Controls/Personal Protection**Control parameters****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Exposure controls**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment**Eye/face protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Version 5.1R

Page 5 / 10

Revision Date 19.05.2018

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and Chemical Properties**Information on basic physical and chemical properties**

Appearance	Form: liquid, clear
Color	colorless
Odor	no data available
Odor Threshold	no data available
pH	no data available
Melting point/freezing point	no data available
Initial boiling point and boiling range	217 °C at 1,013 hPa - lit.
Flash point:	93 °C - closed cup
Evaporation rate	no data available
Flammability (solid, gas)	no data available

Version 5.1R	Page 6 / 10	Revision Date 19.05.2018
--------------	-------------	--------------------------

Upper/lower flammability or explosive limits	Upper explosion limit: 4.5 %(V)
Vapor pressure	Lower explosion limit: 0.8 %(V) Vapor pressure: < 13 hPa at 100 °C 133 hPa at 155 °C
Vapor density:	7.64 - (Air = 1.0)
Relative density	0.946 g/cm ³ at 25 °C
Water solubility:	no data available
Partition coefficient: n-octanol/water	log Pow: 1.7 at 20 °C
Auto-ignition temperature	270 °C
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available
Other safety information	
Relative vapor density 7.64 - (Air = 1.0)	

SECTION 10: Stability And Reactivity

Reactivity

no data available

Chemical stability

May decompose on exposure to moist air or water. Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks

Incompatible materials

Strong oxidizing agents, Acids

Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 1,780 mg/kg

LC50 Inhalation - Rat - male - 6 h - > 5 ppm (OECD Test Guideline 403)

LC50 Inhalation - Rat - female - 6 h - > 16 ppm (OECD Test Guideline 403)

LD50 Dermal - Rabbit - 3.8 g/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns. - 1 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

(OECD Test Guideline 405)

Remarks: Severe eye irritation

Respiratory or skin sensitization

Buehler Test - Guinea pig

May cause sensitization by skin contact.

(OECD Test Guideline 406)

Germ cell mutagenicity

Hamster

ovary

Result: negative

Mutagenicity (micronucleus test)

Mouse - male and female

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 200 mg/kg -

Lowest observed adverse effect level - 600 mg/kg

Repeated dose toxicity - Rabbit - male and female - Dermal - No observed adverse effect level - 84 mg/kg

RTECS: TX2100000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

SECTION 12: Ecological Effects

Toxicity

Toxicity to fish

semi-static test LC50 - Danio rerio (zebra fish) - > 934 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

Immobilization EC50 - Daphnia magna (Water flea) - 331 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae

static test EC50 - Desmodesmus subspicatus (green algae) - > 1,000 mg/l - 72 h

Toxicity to bacteria

EC50 - Pseudomonas putida - 43 mg/l - 5.75 h

Persistence and degradability

Biodegradability

aerobic - Exposure time 28 d

Result: 67 % - Not biodegradable

Bioaccumulative potential

Bioaccumulation

Cyprinus carpio (Carp) - 5 mg/l

Bioconcentration factor (BCF): 3.4

Mobility in soil

no data available

Results of PBT and vPvB assessment

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

Other adverse effects

no data available

SECTION 13: Disposal considerations

Waste treatment methods

Product:

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company

Contaminated packaging

Dispose of as unused product.

SECTION 14:Transport Information**UN number**

ADR/RID: 2735

IMDG: 2735

IATA: 2735

UN proper shipping nameADR/RID: AMINES, LIQUID, CORROSIVE, N.O.S.
(3-Aminopropyltriethoxysilane)IMDG: AMINES, LIQUID, CORROSIVE, N.O.S.
(3-Aminopropyltriethoxysilane)

IATA: Amines, liquid, corrosive, n.o.s. (3-Aminopropyltriethoxysilane)

Transport hazard class(es)

ADR/RID: 8

8 IMDG: 8

IATA: 8

Packing group

ADR/RID: II

IMDG: II

IATA: II

Environmental hazards

ADR/RID: no

IMDG Marine Pollutant: no

IATA: no

Special precautions for user

no data available

SECTION 15:Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16:Other Information**Full text of H-Statements referred to under sections 2 and 3.**

Acute Tox.

Acute toxicity

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

Skin Corr.

Skin corrosion

Skin Sens.

Skin sensitization

Full text of R-phrases referred to under sections 2 and 3

Xn

Harmful

Version 5.1R	Page 10 / 10	Revision Date 19.05.2018
--------------	--------------	--------------------------

R22	Harmful if swallowed.
R34	Causes burns.
R43	May cause sensitization by skin contact.

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.