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

Product Identifier

Product Name: SiSiB® PC5222
 Chemical Name: Diethoxy dimethyl silane
 CAS-No.: 78-62-6
 EC-No.: 201-127-6

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

Identified uses For Industrial Use
 Intermediate chemical

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]

Class	Category	H-Code
Flammable liquids	Category 2	H225

Label elements

Labeling as per (EU) 1272/2008)

Pictogram(s)



Signal word	Danger
H-Code	Hazard statements
H225	Highly flammable liquid and vapor
P-Code	Precautionary statements
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.

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P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection.
P370+P378	In case of fire: Use extinguishing powder, alcohol-resistant foam or carbon dioxide to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to waste disposal.
EC-No.214-189-4	

Other hazards

Inhalation of aerosol spray may damage health.

Product hydrolyses, producing ethanol (CAS no. 64-17-5). Ethanol is highly flammable.

SECTION 3: Composition/information on ingredients

Substances

Chemical characteristics

CAS No.: 78-62-6

organosilane

Hazardous ingredients

Type	CAS No.	EC No.	Material	Content %	Classification according to Regulation (EC) No. 1272/2008*	comment
INHA	78-62-6	201-127-6	Diethoxy dimethyl silane	<=100	Flam. Liq. 2; H225	

Type: INHA: ingredient, VERU: impurity

Classification codes are explained in section 16.

Mixtures

Not applicable

SECTION 4: First aid measures

Description of first aid measures

General information:

In case of accident or if you feel unwell seek medical advice (show label or SDS where possible).

Inhalation:

Provide fresh air.

Skin contact:

Wash with plenty of water or water and soap. In the event of a visible skin change or other complaints, seek medical advice (show label or SDS where possible).

Eye contact:

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Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

Ingestion:

Give several small portions of water to drink. Do not induce vomiting

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 1.1 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, incompletely burnt hydrocarbons, toxic and very toxic fumes.

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

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 material 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

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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 accordance with section 10.

Precautions against fire and explosion

Product may release ethanol. 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.

SECTION 8: Exposure Controls/Personal Protection

Control parameters

Maximum airborne concentrations at the workplace

CAS No.	Material	Type	Mg/m ³	ppm	Dust fract.	Fibre/m ³
67-56-1	Methanol	OEL	1920,0	1000,0		

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Exposure controls

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Exposure in the work place limited and controlled

General protection and hygiene measures:

Avoid contact with eyes and skin. Do not inhale gases/vapor/aerosols. Do not eat, drink or smoke when handling.

Personal protective equipment

Respiratory protection

In case of long or strong exposure: gas mask filter ABEK.

Eye protection

tight fitting protective goggles .

Hand protection

Protective gloves made of butyl rubber. Gloves suitable for up to 60 minutes' use. The selection of appropriate gloves not only depends on the material, but also on other quality characteristics, and may vary depending on the manufacturer. Please observe information from your glove supplier in terms of permeability and breakthrough time.

Skin protection

Protective clothing.

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.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Property	value	method
Appearance:		
Physical state / form	liquid	
Color:	colorless	
Odor:	slight	
pH:	not applicable	
Melting point/range	< -70 ° C	
Boiling point/range	113 ° C at 1013 hPa	
Flash point:	13 ° C	DIN 51755
Lower explosion limit (LEL)	no data available	
Upper explosion limit (UEL)	no data available	
Vapor pressure:	60 hPa at 50 ° C 27 hPa at 20 ° C	
Water solubility/miscibility:	virtually insoluble	
Relative gas/vapor density	No data known.	
Relative Density	0,83 (25 ° C)	

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Density	(Water/ 4 ° C = 1,00) 0,83 g/cm ³ (25 ° C)	
Partition coefficient: n-octanol/water	No data known.	
Ignition temperature	275 ° C	DIN 51794
Viscosity,(dynamic)	0,5 mPa.s at 25 ° C	
Explosion group	II B	
Molecular mass	148,3	

Other information

Hydrolysis products reduce the flash point. Explosion limits for released ethanol: 3.5 - 15%(V).

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: ethanol.

Hazardous decomposition products

By hydrolysis: ethanol.

SECTION 11: Toxicological Information

Information on toxicological effects

Acute toxicity

Product details:

Route of exposure	Result/effect	Species/Test system	source
Oral	LD50: 9280 mg/kg	Rat	RTECS
Oral	LD50: 11300 mg/kg	Rat	test report
Dermal	LD50: 13280 mg/kg	Rat	test report
By inhalation	At the technically highest possible concentration no mortality in animal test.	No data available	

Skin corrosion/irritation

Product details

Result/effect	Species/test system	source
not irritating	No data available	Conclusion by analogy

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Serious eye damage/eye irritation

Product details

Result/effect	Species/test system	source
not irritating	No data available	Conclusion by analogy

Respiratory or skin sensitization

Product details

Route of exposure	Result/effect	Species/test system	source
dermal	Not sensitizing	guinea-pig	test report OECD 406

Germ cell mutagenicity

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Carcinogenicity

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Reproductive toxicity

Assessment:

For this endpoint no toxicological test data is available for the whole product.

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)

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Aspiration hazard

Assessment:

For this endpoint no toxicological test data is available for the whole product.

Further toxicological information

Hydrolysis product / impurity: Ethanol (64-17-5) is readily absorbed at all exposure routes. Ethanol may cause irritation of eyes and mucosa, trigger dysfunction of the central nervous system and cause nausea as well as dizziness. Chronic exposure to high amounts of ethanol may cause damage to liver and central nervous system.

SECTION 12: Ecological Effects

Toxicity

Assessment:

No expected damaging effects to aquatic organisms. According to current knowledge adverse effects on water purification plants are not expected.

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Product details:

Result/effect	Species/test system	Source
LC50: > 1000 mg/l	rainbow trout (Oncorhynchus mykiss)(96h)	literature
EC50: > 1000 mg/l	Daphnia magna (48 h)	literature
IC50 :> 2000 mg/l	Selenastrum capricornutum (72 h)	literature

Persistence and degradability

Assessment

Contact with water liberates ethanol and silanol- and/or siloxanol-compounds.

Bio-accumulative potential

Assessment

No data known.

Mobility in soil

Assessment

No data available

Results of PBT and vPvB assessment

No data known.

Other adverse effects

none known

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 packaging

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**

Valuation	Dangerous Goods
UN number	2380
Proper shipping name	Dimethyldiethoxysilan
Class	3
Packing group	II

Railway RID:

Valuation	Dangerous Goods
UN number	2380
Proper shipping name	Dimethyldiethoxysilan
Class	3
Packing group	II

Transport by sea IMDG-Code

Valuation	Dangerous Goods
UN number	2380
Proper shipping name	Dimethyldiethoxysilan
Class	3
Packing group	II

Air transport ICAO-TI/IATA-DGR:

Valuation	Dangerous Goods
UN number	2380
Proper shipping name	Dimethyldiethoxysilan
Class	3
Packing group	II

Environmental hazards:

Hazardous to the environment:	no
Marine Pollutant (IMDG):	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.

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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.

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 inventory.

Australia:

AICS (Australian Inventory of Chemical Substances):

This product is listed in, or complies with, the substance inventory.

People's Republic of China:

IECSC (Inventory of Existing Chemical Substances in China):

This product is listed in, or complies with, the substance inventory.

Canada:

DSL (Domestic Substance List):

This product is listed in, or complies with, the substance inventory.

Philippines:

PICCS (Philippine Inventory of Chemicals and Chemical Substances):

This product is listed in, or complies with, the substance inventory.

United States of America (USA):

TSCA (Toxic Substance Control Act Chemical Substance Inventory):

This product is listed in, or complies with, the substance inventory.

Taiwan (Republic of China) :

TCSI (Taiwan Chemical Substance Inventory):

This product is listed in, or complies with, the substance inventory.

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European Economic Area (EEA)

REACH (Regulation (EC) No 1907/2006)

SECTION 16: Other Information

Explanation of the GHS classification code:

Flam. Liq. 2; H225: Flammable liquids Category 2; Highly 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.