

Date of Issue: 18.08.2005
Replaced Data Sheet: ---
Product Name: Silicon E (Hardener)

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1 Identification of the Substance/Preparation and the Company

Product Name: **Silicon E (Hardener)**
Application: Hardener component for the production of 2-component-silicone.
Producer/Supplier: HÖHNE GmbH
Mühlenstraße 76
D-25421 Pinneberg (Germany)
Telephone: +49 - (0)4101 / 5453 - 0 / Fax: - 33
Internet: www.hoehne.de / E-Mail: info@hoehne.de
Emergency Phone No.: In an emergency dial your local Emergency Call.
Keep this Safety Data Sheet at hand.

2 Composition / Information on Ingredients

Chemical Characterization (Preparation):
Organotin compound with silicic acid ester.

Dangerous Components:

Substance:	CAS-No.:	EINECS-No.:	Content %:	Symbol:	R-Phrases:
Tetrapropyl-ortho-silicate	682-01-9	211-659-0	> 75	Xi	36/38
Di-n-butyl-tin-dilaurate	77-58-7	201-039-8	< 10	Xn, N	36/38, 48/22, 50/53

3 Hazards Identification

Hazard Designation:
Xi - Irritant
N - Dangerous to the Environment

Special Hazard Identification for Human and Environment:

R 36/38: Irritating to eyes and skin.

R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4 First-Aid Measures

General Information:
Immediately remove all contaminated clothing.

After Inhalation:

Move to fresh air, keep the patient laying down and restful. If breathing has stopped, give artificial respiration. Seek medical advice and clearly identify substance.

After Skin Contact:

Wipe off excess material with cloth or paper. Wash with plenty of water or soap and water. Seek medical advice and clearly identify substance.

After Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes and seek medical advice.

After Swallowing:

Induce drinking plenty of water in small portions. Do not induce vomiting. Seek medical advice immediately and present the label or packaging.

5 Fire-Fighting Measures

Suitable Extinguishing Media:

Extinguishing powder, alcohol-resistant foam, carbon dioxide, sand, water mist, water spray.

Extinguishing Media which must not be used for safety reasons:

Water jet.

Special Exposure Hazards arising from the substance itself, combustion products, resulting gases:

Burning product sets free a complex mixture of gases and airborne particulates, including carbon monoxide, carbon dioxide and other noxious and inflammable gases and fumes.

Special Protective Equipment for Fire Fighting:

Use respiratory protection independent of recirculated air.

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6 Accidental Release Measures

Personal Precautions:

Wear personal protection equipment (see chapter 8). Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Ensure adequate ventilation.

Environmental Precautions:

Prevent material from entering sewers or surface waters. Inform authorities if substance leaks into surface waters. Contain any fluid that runs out using suitable material (e.g. sand, earth). Retain contaminated water/extinguishing media. Dispose of in prescribed marked containers.

Clean-up Method:

Do not flush away with water. Adsorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations (see chapter 13).

Further Information:

Eliminate all sources of ignition.

7 Handling and Storage

Handling:

Ensure adequate ventilation. Reseal opened containers carefully.

Precautions Against Fire and Explosion:

Take precautionary measures against electrostatic charging. Keep away from open flames, heat and sparks. In partly emptied containers formation of explosive mixtures is possible.

Storage:

Keep container tightly closed and store in a cool, well ventilated place.

Make sure that there is no possibility of entering the ground.

Protect against frost. Protect against moisture.

Storage temperature: 0 - 30°C

8 Exposure Controls / Personal Protection

For technical protective measures to limit exposure see also Chapter 7 "Handling and Storage".

Occupational Exposure Limits:

Germany: TRGS 900/901 "Atmospheric Threshold Value":

tin compounds (organic): 0.1 mg/m³

(skin resorptive; maximum limit of excess factor 4; remarks DFG and 25)

Personal Protection:

Respiratory Protection: Not required under normal working conditions.

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

Hand Protection: Protection gloves made of: nitrile rubber or butyl rubber. At any sign of decay or chemical permeability remove gloves immediately and replace. Gloves suitable for up to 60 minutes' use.

Eye Protection: Protective goggles.

Skin Protection: Protective clothing.

General safety and hygienic measures:

Do not eat, drink or smoke during work.

Wash hands with water and soap before breaks and at end of work.

Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols.

Do not put any product-soaked cloth in pockets of clothes.

Remove soiled, soaked clothing. Contaminated clothing should be thoroughly cleaned before re-use.

Exposure to the Environment Limited and Controlled:

Prevent material from entering surface waters, drains or sewers and open soil. Observe local waste by-laws for organo tin and tin compound.

9 Physical and Chemical Properties

tested in accordance with

Form: liquid

Colour: colourless

Odour: odourless

Boiling Point: 230 - 232°C (at 1013 hPa)

Flash Point: > 70°C

Ignition Temperature: > 240°C

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9 Physical and Chemical Properties

tested in accordance with

Vapour Pressure:	approx. 1 hPa	(at 20°C)	
Density:	approx. 1,00 g/cm ³	(at 20°C)	DIN 51 757
Viscosity:	approx. 2 mPa·s	(at 23°C)	Brookfield
Solubility in Water:	Hydrolytic decomposition occurs. Hydrolyse products reduce the flash point.		
Thermal Composition:	not applicable		

10 Stability and Reactivity

General Information:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

Conditions to Avoid:

Moisture.

Materials to Avoid:

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

Hazardous Decomposition Products:

If stored and handled in accordance with standard industrial practices and local regulations where applicable: none known. Under the effect of humidity, water and protic agents formation of alcohols.

11 Toxicological Information

Acute Toxicity:

No specific data available for this product.

Further Toxicological Information:

Alcoxysilane: Irritates eyes and skin.

General Information:

Note indications of danger and safety advice (R- and S-Phrases) in Chapter 15.

12 Ecological Information

Ecotoxicity:

Classification based on ingredients:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence and Degradability:

No specific data available for this product.

Bioaccumulation Potential:

No specific data available for this product.

Further Information:

Prevent material from entering surface waters, drains or sewers and open soil.

Observe local waste bye-laws for organo tin and tin compound.

13 Disposal Considerations

Material:

Dispose of according to regulations by incineration in a special waste incinerator.

The relevant EU Directives and local, regional and national regulations must be complied with.

It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste Catalogue. It is recommended that details be sorted out with the waste disposer responsible.

Uncleaned Packaging (Recommendation):

Completely discharge containers (no tear drop, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

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14 Transport Information

Land transport RID/ADR:
Class: 9
Classification Code: M6
Hazard Index Number: 90
Packaging Group: III
UN No.: 3082
Designation of Goods: Environmentally Hazardous Substance, Liquid, n.o.s.
(Di-n-butyl-tin-dilaurate)
Label: 9
Limited Quantity: LQ 28
Maritime transport IMDG: Advice on request.
Air transport ICAO/IATA: Advice on request.

15 Regulatory Information

Labelling in accordance with Annex I of directive 67/548/EEC and its amendments and adaptations:

Symbol and Hazard Description: Xi - Irritant
N - Dangerous to the Environment

R-Phrases:

R 36/38: Irritating to eyes and skin.
R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-Phrases:

S 2: Keep out of the reach of children
S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 46: If swallowed, seek medical advice immediately and show this container or label.
S 51: Use only in well-ventilated areas.
S 56: Dispose of this material and its container at hazardous or special waste collection point
S 61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

National Regulation (Germany):

Water pollution class (WGK): 3 - Severe hazard to water.

WGK = Classification in accordance with the German Water Resources Act (VwVwS 1999-05-17)

16 Other Information

Listing of all R-Phrases indicated in this Safety Data Sheet:

R 36/38: Irritating to eyes and skin.
R 48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This data sheet was prepared in accordance with the EU Directives.

In the Safety Data Sheet all chapters which have been changed since last edition are marked with an asterisk (*) in front of the chapter number.

This Safety Data Sheet replaces all previous information.

Revised and valid from: see date of issue.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.