WACKER

Safety Data Sheet

Material: 60093442 **SILRES® BS 1802**

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

1.1 Product identifier

Commercial product name: **SILRES® BS 1802**

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

Use of substance / preparation:
Industrial.
concrete

1.3 Details of the supplier of the safety data sheet

Manufacturer/distributor:	Wacker Chemie AG	
Street/POB-No.:	Hanns-Seidel-Platz 4	
State/postal code/city:	D 81737 München	
Telephone:	+49 89 6279-0	
Information about the Safety Data Sheet:	Telephone	+49 8677 83-4888
	eMail	WLCP-MSDS@wacker.com

1.4 Emergency telephone number

Emergency Information:	Europe	**+44 1235 239670**
Emergency Information:	Africa and the Middle East	**+44 1235 239671**
Emergency Information:	Caribbean, Central America and South America except Chile and Colombia	**+1 646 844 7309**
Emergency Information:	Pakistan	**+65 3158 1329**
Emergency Information:	Bangladesh	**+65 3158 1200**
Emergency Information:	East Asia and Southeast Asia except Sri Lanka, Bangladesh and Pakistan	**+65 3158 1074**
Emergency Information:	Sri Lanka	**+65 3158 1195**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 Label elements

No labeling according to GHS required.

Code	Additional Labelling
EUH210	Safety data sheet available on request.
EUH208	Contains 3-(2-aminoethylamino)propyl trimethoxysilane, chloromethylisothiazolinone and methylisothiazolinone (3:1), 1,2-benzisothiazolone. May produce an allergic reaction.

2.3 Other hazards

The product hydrolyses under formation of methanol (CAS-Nr. 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. The product hydrolyses under formation of ethanol (CAS-Nr. 64-17-5). Ethanol 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

3.1 Substances

not applicable

3.2 Mixtures

3.2.1 Chemical characteristics

Alkoxy silanes + siloxane + water

3.2.2 Hazardous ingredients

Type	CAS No.	Substance	Content %
INHA	9043-30-5	Isotridecyl-hydroxypolyglycolether	>=3 – <5

Type: INHA: ingredient, VERU: impurity

Regarding CAS no. 9043-30-5: This substance can also be described by CAS no. 78330-21-9 and 69011-36-5.

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) in amounts above ≥ 0.1%.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:
Take persons to a safe place. Observe self-protection for first aid.

After contact with the eyes:
Rinse immediately with plenty of water for 10-15 minutes. Seek medical advice in case of continuous irritation.

After contact with the skin:
Remove contaminated or soaked clothing. Immediately rinse with plenty of soap and water. In the event of a visible skin change or other complaints, seek medical advice (show label or SDS where possible).

After inhalation:
Keep the patient calm. If unconscious place in stable sideways position. If breathing stops, administer artificial respiration. Protect against loss of body heat. Seek medical advice immediately and clearly identify substance.

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

4.2 Most important symptoms and effects, both acute and delayed

Any relevant information can be found in other parts of this section.

4.3 Indication of any immediate medical attention and special treatment needed

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. Further toxicology information in section 11 must be observed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
not applicable

Extinguishing media which must not be used for safety reasons:
not applicable

5.2 Special hazards arising from the substance or mixture

Ambient fire may lead to hazardous fumes. Exposure to combustion products may be a health hazard! Hazardous combustion products: toxic and very toxic fumes .

5.3 Advice for firefighters

Special protective equipment for fire fighting:
Use respiratory protection independent of recirculated air. Keep unprotected persons away.

General information:
Product does not burn. Use extinguishing measures appropriate to the source of the fire.

SECTION 6: Accidental release measures

6.1 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/vapours/aerosols. If material is released indicate risk of slipping. Do not walk through spilled material.

6.2 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.

6.3 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 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 vapours. Eliminate all sources of ignition. Consider explosion protection. Observe notes under section 7.

6.4 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

7.1 Precautions for safe handling

General information:

Always stir well before use.

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

Precautions against fire and explosion:
Product can separate ethanol and 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.

7.2 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 sun. Protect against frost. Store container in a well ventilated place.

Minimum temperature allowed during storage and transportation: 0 °C
Do not allow this material to freeze.

Maximum temperature allowed during storage and transportation: 40 °C

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

-

8.2 Exposure controls

8.2.1 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/vapours/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

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

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

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

Eye protection

tight fitting protective goggles .

Hand protection

Protective gloves are required at all times when handling the material, according to recognized standards such as EN374.

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
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.

8.2.2 Exposure to the environment limited and controlled

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

8.3 Further information for system design and engineering measures

Observe information in section 7. Observe national regulatory requirements.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property:	Value:	Method:
Appearance		
Physical state	liquid	
Form	Emulsion	
Colour	yellowish	

Odour			
Odour	:	faint	
Odour limit			
Odour limit	:	no data available	
pH-Value			
pH-Value	:	8 (100 %)	(Indicator strips)
Melting point/freezing point			
Melting point / melting range	:	-1 °C at 1013 hPa	
Initial boiling point and boiling range			
Boiling point / boiling range	:	100 °C at 1013 hPa	(not specified)
Flash point			
Flash point	:	73 °C	(ISO 3679)
Sustained combustibility	:	> 100 °C	(ISO 9038)
Evaporation rate			
Evaporation rate	:	no data available	
Upper/lower flammability or explosive limits			
Lower explosion limit (LEL)	:	no data available	
Upper explosion limit (UEL)	:	no data available	
Vapour pressure			
Vapour pressure	:	23 hPa / 20 °C	(not specified)
Solubility(ies)			
Water solubility / miscibility	:	completely miscible	
Vapour density			
Relative gas/vapour density	:	No data known.	
Relative Density			
Relative Density	:	0,95 (20 °C) (Water / 4 °C = 1,00)	(not specified)
Density	:	0,95 g/cm³ (20 °C)	(not specified)
Partition coefficient: n-octanol/water			
Partition coefficient: n-octanol/water	:	No data known.	
Auto-ignition temperature			
Ignition temperature	:	395 °C	(not specified)
Decomposition temperature			
Thermal decomposition	:	no data available	
Viscosity			
Viscosity (dynamic)	:	12 mPa.s at 25 °C	(not specified)
Molecular mass			
Molecular mass	:	not applicable	

9.2 Other information

Explosion Limits: Explosion limits for released ethanol: 3.5 - 15%(V). Explosion limits for released methanol: 5.5 - 44%(V).

SECTION 10: Stability and reactivity

10.1 – 10.3 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.

10.4 Conditions to avoid

Heat, open flames, and other sources of ignition.

10.5 Incompatible materials

Reacts with: basic substances and acids . The reaction takes place with the formation of ethanol and methanol.

10.6 Hazardous decomposition products

Ethanol and methanol by hydrolysis. The following applies for the silicone content of the substance: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 General information

Data derived for the product as a whole are of higher priority than data for single ingredients.

11.1.2 Acute toxicity

Assessment:

For similar products no indications for a specific hazard due to aerosol inhalation were identified in animal tests. However, inhalation of respirable aerosol should be avoided.

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
Oral	LD50: > 2000 mg/kg The assessment is made under consideration of relevant data on ingredients.	Rat	Conclusion by analogy

11.1.3 Skin corrosion/irritation

Assessment:

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

11.1.4 Serious eye damage / eye irritation

Assessment:

Based on the available data a clinically relevant eye irritation hazard is not expected.

Product details:

Result/Effect	Species/Test system	Source
No eye irritation	Rabbit	Conclusion by analogy

11.1.5 Respiratory or skin sensitization

Assessment:

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

11.1.6 Germ cell mutagenicity

Assessment:

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

11.1.7 Carcinogenicity

Assessment:

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

11.1.8 Reproductive toxicity

Assessment:

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

11.1.9 Specific target organ toxicity (single exposure)

Assessment:

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

11.1.10 Specific target organ toxicity (repeated exposure)

Assessment:

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

11.1.11 Aspiration hazard

Assessment:

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

11.1.12 Further toxicological information

Data on substances:

Product of hydrolysis (Methanol):

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.

Product of hydrolysis (Ethanol):

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 information

12.1 Toxicity

Assessment:

For the product as a whole, no test data is available. According to current knowledge adverse effects on water purification plants are not expected.

12.2 Persistence and degradability

Assessment:

Silicone content: biologically not degradable. Elimination by adsorption to activated sludge. The hydrolysis product (Ethanol) is readily biologically degradable. The product of hydrolysis (methanol) is readily biodegradable.

Data on substances:

Product of hydrolysis (Methanol):

Methanol is readily biodegradable.

Product of hydrolysis (Ethanol):

Ethanol is readily biodegradable.

12.3 Bioaccumulative potential

Assessment:

Bioaccumulation is not expected to occur.

12.4 Mobility in soil

Assessment:

No data known.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

none known

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 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.

13.1.2 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.

SECTION 14: Transport information

14.1 – 14.4 UN number; UN proper shipping name; Transport hazard class(es); Packing group

Road ADR:
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

14.5 Environmental hazards

Hazardous to the environment: no

14.6 Special precautions for user

Relevant information in other sections has to be considered.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Bulk transport in tankers is not intended.

SECTION 15: Regulatory information

15.1 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.

15.2 Details of international registration status

Relevant information about individual substance inventories, where available, is given below.

Australia ..... :	**AIIC** (Australian Inventory of Industrial Chemicals): This product is listed in, or complies with, the substance inventory.
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): All components of this product are listed as active or are in compliance with the substance inventory.

Taiwan ..... :	**TCSI** (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) ..... :	**REACH** (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.
South Korea (Republic of Korea) ..... :	**AREC** (Act on Registration and Evaluation of Chemicals; “K-REACH”): Please approach your regular contact for more detailed information.

SECTION 16: Other information

16.1 Material

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements.

The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws and stipulations applicable to the product. This applies in particular to the further sale or distribution of the product or substances or items containing the product, in other jurisdictions and with regard to the protection of third-party intellectual property rights. If the described product is processed or mixed with other substances or materials, the details stated in this document cannot be conferred to the resultant new product unless this has been expressly mentioned. If the product is repackaged, the recipient is obligated to additionally provide the required safety-related information.

WACKER restricts the use of its products inside the human body or in contact with bodily fluids and mucosa. For further details please review our Health Care Policy on www.wacker.com. WACKER may cancel any delivery obligation(s) if the Health Care Policy is not observed.

16.2 Further information:

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version. This version supersedes all previous versions.

- End of Safety Data Sheet -