

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 30.03.2022

Version number 3 (replaces version 2)

Revision: 30.03.2022

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

#### 1.1 Product identifier

- Trade name: **Keramiksilicon**
- Article number: 421xx, 422xx, 423xx

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

- Application of the substance / the mixture No further relevant information available.  
Construction chemicals  
Silicate sealing

#### 1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH      Tel. +49(0)911-642960  
Lechstrasse 28      Fax. +49(0)911-644456  
D 90451 Nürnberg      e-mail info@akemi.de

- Further information obtainable from: Laboratory

#### 1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH  
Tel. +49(0)911-64296-59  
Reachable during the following office hours:  
Monday – Thursday from 07:30 a.m. to 16:30 p.m.  
Friday from 07:30 a.m. to 13:30 p.m.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008 The product is not classified, according to the CLP regulation.

#### 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008 Void
- Hazard pictograms Void
- Signal word Void

- Hazard-determining components of labelling: Not applicable.

- Hazard statements Void
- Additional information: Contains 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction. Safety data sheet available on request.

#### 2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

- Description: Sealant  
Mixture: consisting of the following components.

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· <u>Dangerous components:</u>		
17689-77-9	Triacetoxethylsilane Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302 EUH014	0-5%
26530-20-1	2-octyl-2H-isothiazol-3-one Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330 Skin Corr. 1, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100) Skin Sens. 1A, H317 EUH071 ATE: LD50 oral: 125 mg/kg LD50 dermal: 311 mg/kg LC50/4 h inhalative: 0.27 mg/l Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.0015 %	<1%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

#### · 4.1 Description of first aid measures

- General information: Take affected persons out of danger area and lay down.  
Personal protection for the First Aider.  
Seek medical treatment.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.  
If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Rinse out mouth and then drink plenty of water.  
Seek medical treatment.

#### · 4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions

#### · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### SECTION 5: Firefighting measures

#### · 5.1 Extinguishing media

- Suitable extinguishing agents: CO<sub>2</sub>, powder or water spray. Fight larger fire with alcohol resistant foam.  
Use fire extinguishing methods suitable to surrounding conditions.

- For safety reasons unsuitable extinguishing agents:

Water with full jet

#### · 5.2 Special hazards arising from the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

- Carbon monoxide (CO)
- Nitrogen oxides (NO<sub>x</sub>)
- Siliziumoxide
- Formaldehyde

#### · 5.3 Advice for firefighters

- Protective equipment: Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.
- Additional information Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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Cool endangered receptacles with water spray.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective clothing.

Product forms slippery surface when combined with water.

- **6.2 Environmental precautions:**

Prevent from spreading (e.g. by damming-in or oil barriers).

Keep contaminated washing water and dispose of appropriately.

Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:**

Allow to solidify. Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**

Use only in well ventilated areas.

- **Information about fire - and explosion protection:**

No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Prevent any seepage into the ground.

- **Information about storage in one common storage facility:**

VCI-Konzept für die Zusammenlagerung von Chemikalien beachten.

Store away from foodstuffs.

Store away from oxidising agents.

- **Further information about storage conditions:**

Protect from frost.

Protect from heat and direct sunlight.

- **Storage class:**

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- **7.3 Specific end use(s)**

No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **DNELs**

**17689-77-9 Triacetoxylethylsilane**

Inhalative	DNEL (Kurzzeit-akut)	65 mg/m <sup>3</sup> Air (BEV)
	DNEL (Langzeit-wiederholt)	32.5 mg/m <sup>3</sup> Air (ARB)
		10.8 mg/m <sup>3</sup> Air (BEV)

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· PNECs**17689-77-9 Triacetoxethylsilane**

PNEC (wässrig)	1 mg/l (KA)
	0.02 mg/l (MW)
	0.2 mg/l (SW)
	1.7 mg/l (WAS)
PNEC (fest)	0.031 mg/kg Trockengew (BO)
	0.016 mg/kg Trockengew (MWS)
	0.16 mg/kg Trockengew (SWS)

· Additional information: The lists valid during the making were used as basis.· **8.2 Exposure controls**· Appropriate engineering controls No further data; see item 7.· Individual protection measures, such as personal protective equipment· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

Use skin protection cream for skin protection.

Wash hands before breaks and at the end of work.

· Respiratory protection:

Not necessary if room is well-ventilated.

Short term filter device:

Filter A/P2

· Hand protection

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Butyl rubber, BR

Chloroprene rubber, CR

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Value for the permeation: Level ≤ 6;480min

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

· As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Butoject (KCL, Art\_No. 897, 898)

Camapren (KCL, Art\_No. 720, 722, 726)

Butyl rubber, BR

· Not suitable are gloves made of the following materials:

Strong material gloves

Leather gloves

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· Eye/face protection

Tightly sealed goggles

· Body protection:

Impervious protective clothing

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

· <u>General Information</u>	
· <u>Physical state</u>	Solid
· <u>Colour:</u>	Different according to colouring
· <u>Odour:</u>	vinegary
· <u>Odour threshold:</u>	Not determined.
· <u>Melting point/freezing point:</u>	Undetermined.
· <u>Boiling point or initial boiling point and boiling range</u>	Undetermined.
· <u>Flammability</u>	Not applicable.
· <u>Lower and upper explosion limit</u>	
· <u>Lower:</u>	Not determined.
· <u>Upper:</u>	Not determined.
· <u>Flash point:</u>	Not applicable.
· <u>Ignition temperature:</u>	>440 °C
· <u>Decomposition temperature:</u>	Not determined.
· <u>pH</u>	Not determined.
· <u>Viscosity:</u>	
· <u>Kinematic viscosity at 20 °C</u>	>20.5 mm <sup>2</sup> /s
· <u>Dynamic:</u>	Not determined.
· <u>Solubility</u>	
· <u>water:</u>	Soluble.
· <u>Partition coefficient n-octanol/water (log value)</u>	Not determined.
· <u>Vapour pressure:</u>	Not determined.
· <u>Density and/or relative density</u>	
· <u>Density at 20 °C:</u>	1-1.04 g/cm <sup>3</sup>
· <u>Relative density</u>	Not determined.
· <u>Vapour density</u>	Not determined.

### 9.2 Other information

· <u>Appearance:</u>	
· <u>Form:</u>	Pasty
· <u>Important information on protection of health and environment, and on safety.</u>	
· <u>Auto-ignition temperature:</u>	Product is not selfigniting.
· <u>Explosive properties:</u>	Product does not present an explosion hazard.
· <u>Change in condition</u>	
· <u>Evaporation rate</u>	Not determined.

### Information with regard to physical hazard classes

· <u>Explosives</u>	Void
· <u>Flammable gases</u>	Void
· <u>Aerosols</u>	Void
· <u>Oxidising gases</u>	Void

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- Gases under pressure Void
- Flammable liquids Void
- Flammable solids Void
- Self-reactive substances and mixtures Void
- Pyrophoric liquids Void
- Pyrophoric solids Void
- Self-heating substances and mixtures Void
- Substances and mixtures, which emit flammable gases in contact with water Void
- Oxidising liquids Void
- Oxidising solids Void
- Organic peroxides Void
- Corrosive to metals Void
- Desensitised explosives Void

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** Stable under recommended transport or storage conditions
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.  
Toxic fumes may be released if heated above the decomposition point.
- **10.4 Conditions to avoid** Heat, flames and other sources of ignition  
moisture
- **10.5 Incompatible materials:** strong oxidizing agents  
bases  
Acids

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- **10.6 Hazardous decomposition products:** Small quantities of formaldehyde may be formed

**SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- Acute toxicity Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

**ATE (Acute Toxicity Estimates)**

Oral	LD50	>29,200-48,667 mg/kg (rat)
------	------	----------------------------

**17689-77-9 Triacetoxylethylsilane**

Oral	LD50	1,460 mg/kg (rat) (OECD 401)
------	------	------------------------------

**26530-20-1 2-octyl-2H-isothiazol-3-one**

Oral	LD50	125 mg/kg (ATE)
Dermal	LD50	311 mg/kg (ATE)
Inhalative	LC50/4 h	0.27 mg/l (ATE)

- Primary irritant effect: Do not get in eyes, on skin, or on clothing.
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**

- Endocrine disrupting properties

None of the ingredients is listed.

**SECTION 12: Ecological information****12.1 Toxicity**

- Aquatic toxicity:

**17689-77-9 Triacetoxylethylsilane**

EC50	>100 mg/l (BES)
IC50/72h	73 mg/l (Pseudokirchneriella subcapitata)
EC50/48h	62 mg/l (daphnia magna)
NOEC/21d	≥100 mg/l (daphnia magna)
EC50/48h	168.7 mg/l (daphnia magna)
EC50/72h	210 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	251 mg/l (Danio rerio.)

**26530-20-1 2-octyl-2H-isothiazol-3-one**

EC50/48h	0.32 mg/l (daphnia magna)
EC20/3h	7.3 mg/l (BES)
NOEC/21d	0.003 mg/l (daphnia magna)
EC50/72h	0.00129 mg/l (Navicula pelliculosa)
LC50/96h	0.047 mg/l (Oncorhynchus mykiss)

- **12.2 Persistence and degradability** Not easily biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation** Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.  
Smaller quantities can be disposed of with household waste.

· European waste catalogue

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02 00	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 17	waste containing silicones other than those mentioned in 07 02 16
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 02	plastic packaging

- **Uncleaned packaging:**
- **Recommendation:** Packagings that may not be cleansed are to be disposed of in the same manner as the product.  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

**SECTION 14: Transport information**

- |  |      |
|--|------|
| · <b>14.1 UN number or ID number</b>     | Void |
| · <b>ADR, IMDG, IATA</b>                 | Void |
| · <b>14.2 UN proper shipping name</b>    | Void |
| · <b>ADR, IMDG, IATA</b>                 | Void |
| · <b>14.3 Transport hazard class(es)</b> | Void |
| · <b>ADR, ADN, IMDG, IATA</b>            | Void |
| · <b>Class</b>                           | Void |
| · <b>14.4 Packing group</b>              | Void |
| · <b>ADR, IMDG, IATA</b>                 | Void |
| · <b>14.5 Environmental hazards:</b>     | No   |
| · <b>Marine pollutant:</b>               | No   |

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- |   |  |
|---|--|
| <b>· 14.6 Special precautions for user</b>                            | Not applicable.                                      |
| <b>· 14.7 Maritime transport in bulk according to IMO instruments</b> | Not applicable.                                      |
| <b>· Transport/Additional information:</b>                            | Not dangerous according to the above specifications. |
| <b>· UN "Model Regulation":</b>                                       | Void   |

**SECTION 15: Regulatory information****· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
  - Named dangerous substances - ANNEX I
- None of the ingredients is listed.

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· National regulations:

- Information about limitation of use: Employment restrictions concerning pregnant and lactating women must be observed.  
Employment restrictions concerning juveniles must be observed.

· Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU 0.0 g/l

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Laboratory
- Date of previous version: 07.02.2022
- Version number of previous version: 2
- Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organisation  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 2: Acute toxicity – Category 2  
Skin Corr. 1: Skin corrosion/irritation – Category 1  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Skin Sens. 1A: Skin sensitisation – Category 1A  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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