



## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Trade name: **SILIKAT RESIN 3P comp. A**

Date of print: 18/01/2012

Revision date: 10/01/2011

Version: 2.0 / EN

## 1. Identification of the substance/mixture and of the company/undertaking

**1.1 Product identifier:** SILIKAT RESIN 3P comp. A

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

Adhesive, binder, insulator. Component A of polyurea system for industrial use.

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

Sanikom d.o.o..

Street: Vrtna ulica 39

Postcode/City/Country: SI-4294 Križe

E-mail: [info@sanikom.si](mailto:info@sanikom.si)

Phone: +386-590-84-885 (8:00-16:00)

**1.4 Emergency telephone number**

Emergency telephone number: +386 (0) 590-84-884

## 2. Hazards identification

**2.1. Classification of the substance or mixture**

**2.1.1. Classification according to Regulation (EC) 1272/2008 (CLP)**

<i>Hazard classes / categories</i>	<i>Hazard statements</i>
Skin irrit. 2	H315
Eye dam. 1	H318

**2.1.2. Classification according to 67/548/EEC**

<i>Classification</i>	<i>R-phrases</i>	<i>S- phrases</i>
Xi	R38	S26
	R41	S28

**2.2. Label elements**

**2.2.1. Labelling according to Regulation (EC) 1272/2008 (CLP)**

**Hazard pictogram:**



**Signal word:** Danger



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### Hazard statements:

H315 Causes skin irritation  
H318 Causes serious eye damage

### Precautionary statements:

P262 Do not get in eyes, on skin, or on clothing  
P280 Wear protective gloves/protective clothing/eye protection/face protection  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Hazard determining component(s) for labeling:** Silicid acid, sodium salt (CAS: 1344-09-8, EINECS: 215-687-4).

## 3. Composition/information on ingredients

**Substances/substances:** Substance

<i>Chemical name</i>	<i>CAS-Nr.</i>	<i>%</i>	<i>REACH Nr.</i>	<i>EC-Nr.</i>
Silicic acid, sodium salt (Molar ratio Na <sub>2</sub> O : SiO <sub>2</sub> = 1 : > 1.6 - < 2.6)	1344-09-8	25-50	01-2119448725-31-0000	215-687-4

## 4. First aid measures

### 4.1. Description of first aid measures

General information: No special measures necessary  
If inhaled: No special measures necessary  
On skin contact: In case of contact with skin, wash off immediately with plenty of water. Do not allow the product to dry on the skin. Consult a doctor if skin irritation persists.  
On contact with eyes: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.  
On ingestion: Immediately rinse mouth and drink plenty of water, do not induce vomiting, seek medical attention immediately.  
Hints for the physician: This product contains alkali silicates

## 5. Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.  
Non-suitable extinguishing media: compatible with all usual extinguishing media.



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

None known.

### 5.3. Advice for firefighter

Special protective equipment: In case of combustion use a suitable breathing apparatus.

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## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid contact with skin, eyes and clothing. High risk of slipping due to leakage/spillage of product.

### 6.2. Environmental precautions

Do not allow to enter drains or waterways.

### 6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, kieselguhr, universal binder). Rinse away rest with plenty of water.

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## 7. Handling and storage

### 7.1. Precautions for safe handling

Observe the usual precautions for handling chemicals. Open and handle container with care.

### 7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels: keep only in the original container.

Further information on storage conditions: Protect from frost.

Recommended storage temperature: value 5 - 45°C.

VCI storage category: 12 non-combustible liquids

Storage stability: Under correct storing conditions the product is stable for at least 12 months.

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## 8. Exposure controls/personal protection

### 8.1. Control parameters

No exposure limit value known.

### 8.2. Exposure controls

General protective and hygiene measures: Observe the usual precautions when handling chemicals. Wash hands before breaks and after work. Do not eat, drink or smoke during work time.

#### Occupational exposure controls

Respiratory protection: Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, Filter B

Hand protection: Gloves (alkali-resistant)

Appropriate material: Latex

KCL Lapren 706 / 0.6 mm / 480 min.

Eye protection: Safety glasses with side protection shield.

Skin protection: Clothing as usual in the chemical industry.

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## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Form: liquid, clear
- Odour: odourless
- Colour: colourless to slightly yellow
- Flash point: non flammable
- Boiling point: appr. 100 °C
- Density: appr. 1,55 kg/l (at 20 °C)
- Viscosity: appr. 600 mPa.s (at 20 °C)
- Solubility in water: completely miscible
- pH-value: 13-14
- Solids content: appr. 46 %
- Flammability: not ignitable

### 9.2. Other information

Not applicable.

## 10. Stability and reactivity

**Conditions to avoid:** Protect from frost  
**Materials to avoid:** Acids  
**Hazardous decomposition products:** No hazardous decomposition products known

## 11. Toxicological information

Information is related to the product, data are used as cross reference.

### Acute toxicity

#### Acute oral toxicity

**Remarks:** The toxicological data shown are those obtained from tests on products of similar composition.

**Reference substance** Silicic acid, sodium salt (Molar ratio Na<sub>2</sub>O : SiO<sub>2</sub> = 1 : 2.0; 40-50%)

**Species** rat

**LD50** > 2000 mg/kg

**Source** data of supplier

**Reference substance** Silicic acid, sodium salt (Molar ratio Na<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.2-3.4; 35-40%)

**Species** rat

**LD50** > 2000 mg/kg

**Source** data of supplier

**Reference substance** Silicic acid, potassium salt (Molar ratio K<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.9-4.0; 28-30%)

**Species** rat

**LD50** > 2000 mg/kg

**Source** data of supplier

**Remarks** The poisonous effect of the product is caused by its alkalinity and not by substance-specific systemic characteristics



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### Irritant/corrosive effects

*Irritant effect on skin:* irritant  
*Irritant effect on eyes:* irritant – risk of serious damage to eyes  
*Sensitization:* non-sensitizing

### Effects after repeated or prolonged exposition (subacute, subchronic, cronic)

*Experience in practice:* Irritating effects on the skin and mucous membrane. Risk of serious damage to eyes  
*Other information :* When handled appropriately, even after long years of experience with this product, no adverse health effects are known

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## 12. Ecological information

Information is related to the product, data are used as cross reference.

### Fish toxicity

*Remarks:* Ecotoxicological data are taken from a similar product of the same type.  
*Reference substance* Silicic acid, sodium salt (Molar ratio Na<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.36; 35%)  
*Species* Brachidanio rerio  
*LC50* > 2000 mg/l  
*Duration of exposure* 96 h  
*Source* data of supplier  
*Reference substance* Silicic acid, potassium salt (Molar ratio K<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.9-4.0; 29%)  
*Species* Leuciscus idus  
*LC0* > 500 mg/l  
*Duration of exposure* 48 h  
*Source* data of supplier  
*Remarks* The ecotoxic effect of the product is mainly due to its alkalinity

### Daphnia toxicity

*Remarks:* Ecotoxicological data are taken from a similar product of the same type.  
*Reference substance* Silicic acid, sodium salt (Molar ratio Na<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.2; 35%)  
*Species* Daphnia magna  
*EC0* > 2000 mg/l  
*Duration of exposure* 48 h  
*Source* data of supplier  
*Reference substance* Silicic acid, potassium salt (Molar ratio K<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.9-4.0; 29%)  
*Species* Daphnia magna  
*EC0* > 500 mg/l  
*Duration of exposure* 24 h  
*Source* data of supplier  
*Remarks* The ecotoxic effect of the product is mainly due to its alkalinity

### Bacteria toxicity

*Remarks:* Ecotoxicological data are taken from a similar product of the same type.  
*Reference substance* Silicic acid, sodium salt (Molar ratio Na<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.36; 35%)  
*Species* Pseudomonas putida  
*EC0* > 1000 mg/l  
*Duration of exposure* 48 h  
*Source* data of supplier  
*Remarks* The ecotoxic effect of the product is mainly due to its alkalinity



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### Biodegradability

**Remarks:** Inorganic product, cannot be eliminated from the water by biological purification processes.

### Behaviour in sewers (waste treatment plants)

The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants. When low concentrations are discharged correctly into adapted biological sewage treatment plants, disturbance of the degradation activity of activated sludge is not likely.

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## 13. Disposal considerations

### Disposal recommendations for the product

EWC waste code: 06 02 05 other bases.

Dilution and neutralization with acid. After solidification (e.g. as CaSiO<sub>3</sub> precipitate), landfill in accordance with local authorities. Re-use without reprocessing as long as not solidified.

### Disposal recommendations for packaging

Completely emptied packagings can be given for recycling.

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## 14. Transport information

### Land transport ADR/RID

Not classified as dangerous according to transport regulations

### Sea transport IMDG/GGVSee)

Not classified as dangerous according to transport regulations

### Air transport

Not classified as dangerous according to transport regulations

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## 15. Regulatory information

### 15.1. Safety, health and environmental regulations/legislations specific for the substance or mixture

The product is classified and labelled in accordance with EC Directive 99/45/EC.

Water Hazard Class (Ger.): WGK 1

Registration no.: EC 215-687-4

### 15.1. Chemical Safety Assessment

Chemical Safety Assessment has been carried out for the substance. See Exposure scenario attached.

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## 16. Other information

### Hazard symbols

Xi	Irritant
Skin irrit. 2	Skin irritation
Eye dam. 1	Serious eye damage

### R-Phrases

R38	Irritating to skin
R41	Risk of serious damage to eyes



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### ***S- Phrases***

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

### ***H- Phrases***

H315 Causes skin irritation  
H318 Causes serious eye damage

### ***P- Phrases***

P262 Do not get in eyes, on skin, or on clothing  
P280 Wear protective gloves/protective clothing/eye protection/face protection  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing



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### EXPOSURE SCENARIO

Title	Workplace exposure to sodium silicate (EC 215-687-4)
Use Descriptor	Sector of Use: SU 3 and SU 22
	Process Categories (PROC): 1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 10, 11, 13, 14, 22, 23, 24, 25
	Environmental Release Categories: not required
Processes, tasks, activities covered	Manufacture of the substance as well as industrial and professional uses.
<b>Section 2</b>	<b>Operational conditions and risk management measures</b>
	Whenever handling sodium silicate in a water preparation outside closed systems, depending on the use and concentration suitable personal protective equipment (gloves, goggles, dust masks or respirators) are the preferred and only measure of control.
<b>Section 2.1</b>	<b>Control of worker exposure</b>
Product characteristics	
Physical form of product	lliquid
Concentration of substance in product	Covers percentage substance in the product up to 100 %, unless otherwise stated.
Amounts used	No limit
Frequency and duration of use	Covers frequency up to: daily use, weekly, monthly, yearly.
Human factors not influenced by risk management	Not applicable
Other Operational Conditions affecting worker exposure	Assumes a good basic standard of occupational hygiene is implemented. The work occurs inside as well outside.
<b>Contributing Scenarios</b>	<b>Risk Management Measures.</b>
PROC 1, 2, 3	Handle substance within a closed system. No other specific measures identified.
PROC 4, 5, 6, 8a, 8b, 9, 10, 13, 14, 22, 23, 24	Wear suitable gloves (tested to EN374). No other specific measures identified.
PROC 7, 11	Covers percentage substance in the product up to 25 %. Provide enhanced general ventilation by mechanical means. Wear suitable gloves (tested to EN374) and eye protection or Wear a respirator conforming to EN140 with Type A/P2 filter. Avoid carrying out operation for more than 1 hour. Wear suitable gloves (tested to EN374) and eye protection.
<b>Section 2.2</b>	<b>Control of environmental exposure</b>
	Not required, as soluble silicates, including sodium/potassium silicate/disodium metasilicate, do not meet the criteria for classification as dangerous to the environment according to 67/548/EEC (See Article 14.4 of REACH Regulation). Furthermore, as high production volume substances, soluble silicates have been reviewed to a great extent for their exposure potential to the environment and the possible risks arising from their release (Van Dokkum et al. 2002, OECD SIDS 2004, HERA 2005, and CEES 2008). It was concluded that soluble silicates are currently of low priority for further work because of their low hazard profile.
<b>Section 3</b>	<b>Exposure Estimation</b>
<b>3.1.</b>	<b>Health</b>
The ECETOC TRA tool has been used to estimate worker exposures.	
<b>Section 4</b>	<b>Guidance to check compliance with the Exposure Scenario</b>
<b>4.1.</b>	<b>Health</b>
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	