

Sodium Waterglass (Comp. A)

Pipe Doctor Patch Repair

according to Regulation (EC) 1272/2008 (CLP) & 67/548/EEC

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

1.1 Product identifier: Sodium Waterglass Comp. A

1.2 Relevant identified uses of the substance or mixture and uses advised against: "A" component for water glass – polyisocyanate based two-component synthetic resin. The synthetic resin (components "A"+"B") is used for the lining of sewer pipes and manholes. The application has to be carried out under professional, industrial conditions by persons having proper previous training.

1.3 Details of the supplier of the safety data sheet:

Company: S1E Ltd, Copper House, Unit 2, Barnsley, S72 2BQ.

Telephone: +44 (0)1226 397 015

E-mail address: contact@s1e.co.uk

1.4 Emergency telephone number

UFI Code: GJ3U-JMU4-000M-CGCS

Emergency telephone number: +44 (0) 845-408-9575 / Merseyside/UK

+1 (800) 424-9300 / USA

+49 (0) 30 19-240 / Berlin

2. Hazards identification

2.1 Classification of the substance or mixture

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

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

2.1.2 Classification according to 67/548/EEC

Classification	R-phrases	S-phrases
Xi	R38	S26
	R41	S36/37/39

2. Hazards identification - continued.

2.2 Label elements

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

Hazard pictogram



Signal word Attention

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.

2.2.2 Labelling according to 67/548/EEC

Xi



R38 Irritating to skin.

R41 Risk of serious damage to eyes.

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.

Hazard determining component(s) for labelling:

Silicid acid, sodium salt (CAS: 1344-09-8, EINECS: 215-687-4).

2.2.3 Other hazards

None known.

3. Composition/information on ingredients

Substances/mixtures: Substance

Chemical name	EC-No.	CAS-No.	REACH-No.	Content (%)
Silicic acid, sodium salt (Molar ratio Na ₂ O : SiO ₂ = 1 : > 1.6 - < 2.6)	215-687-4	1344-09-8	01-2119448725-31-0000	25 – 50

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.

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.

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.

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.

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.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance	liquid, clear, colourless to slightly yellow
Odour	odourless
Odour threshold	no data
pH-value	13-14
Melting point/freezing point	no data
Boiling range	appr. 100 °C
Flash point	no flammable
Evaporation rate	no data
Flammability (solid, gaseous)	not ignitable
Ignitable, explosive range	no data
Vapour pressure	no data
Vapour density	no data
Density	appr. 1,55 kg/l (at 20 °C)
Solubility	completely miscible
Partition coefficient n-octanol/water	not applicable
Self-ignition temperature	no data
Decomposition temperature	no data
Viscosity	appr. 600 mPa.s (at 20 °C)
Explosive properties	no data
Oxidising properties	no data

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 $\text{Na}_2\text{O} : \text{SiO}_2 = 1 : 2.0$; 40-50%)
Species rat
LD50 > 2000 mg/kg.
Source data of supplier.

Reference substance Silicic acid, sodium salt
(Molar ratio $\text{Na}_2\text{O} : \text{SiO}_2 = 1 : 3.2-3.4$; 35-40%)
Species rat
LD50 > 2000 mg/kg
Source data of supplier

Reference substance Silicic acid, potassium salt
(Molar ratio $\text{K}_2\text{O} : \text{SiO}_2 = 1 : 3.9-4.0$; 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.

Irritant/corrosive effects

Irritant effect on skin irritant

Irritant effect on eyes irritant – risk of serious damage to eyes

Sensitization non-sensitizing

11. Toxicological information - continued

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.

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 $\text{Na}_2\text{O} : \text{SiO}_2 = 1 : 3.36$; 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 $\text{K}_2\text{O} : \text{SiO}_2 = 1 : 3.9-4.0$; 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 $\text{Na}_2\text{O} : \text{SiO}_2 = 1 : 3.2$; 35%)
Species *Daphnia magna*
EC0 > 2000 mg/l
Duration of exposure 48 h
Source data of supplier

12. Ecological information - continued.

Reference substance Silicic acid, potassium salt
(Molar ratio $K_2O : SiO_2 = 1 : 3.9-4.0$; 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 $Na_2O : SiO_2 = 1 : 3.36$; 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.

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.

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 $CaSiO_3$ 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.

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

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

15.2. Chemical Safety Assessment

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

16. Other information

Hazard symbols

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

R-Phrases

R38	Irritating to skin.
R41	Risk of serious damage to eyes.

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.

16. Other information - continued.

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.

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.

Section 2

Operational conditions and risk anagement measures.

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.

Section 2.1

Control of worker exposure.

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

16. Other information - continued.

Frequency and Covers 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.

Contributing Scenarios Risk Management Measures.

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.

Section 2.2 Control of environmental exposure.
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.

Section 3 Exposure Estimation
3.1. Health:
The ECETOC TRA tool has been used to estimate worker exposures.

Section 4 Guidance to check compliance with the Exposure Scenario
4.1. Health:
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.

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No-dig Pipeline Repair

S1E Limited is a specialist supplier of trenchless technologies to the drainage repair industry. The company focuses on sourcing quality products for professional use. They are all tried and tested in the field to produce impressive results. S1E distributes high-quality products from market-leading manufacturers for the drainage repair industry. Products include camera inspection systems, cutting and cleaning tools, CIPP lining equipment and consumables, mechanical point repair devices, rat blockers and other site consumables.

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