

UNIVERSAL SEALANTS (UK) LIMITED

NUFINS DIVISION

Kingston House, 3 Walton Road, Pattinson North,
Washington, Tyne & Wear. NE38 8QA
Telephone No: 0191 416 8360 Fax No: 0191 415 5966

1. Product Identification

Trade Name: CONSEAL SILICATE
Description: Sodium Silicate solution.

2. Composition / Information on Ingredients

Ingredient	CAS Number	Conc. (w/w)	Classification	R. Phrases
Sodium silicate	1344-09-8	>90%	Xi	38,41

3. Hazard Identification

This product is irritating to the skin and may cause serious damage to the eyes.

4. First Aid Measures

Inhalation: In case of drowsiness or sickness remove to fresh air, keep patient warm and at rest. If unconscious, turn to the recovery position. Seek medical assistance.

Skin Contact: Promptly remove contaminated clothing and wash the affected area with plenty of soap and water to ensure all traces of product are removed, then rinse thoroughly. Any contaminated clothing must be thoroughly cleaned before re-using. Seek medical advice if irritation persists.

Eye Contact: Flush with copious amounts of clean water for at least 20 minutes, with the eyelids held open. This prolonged irrigation is of extreme importance and must be done at once otherwise permanent damage will result. Continue irrigation until medical attention can be obtained.

Ingestion: Wash out mouth with water. Keep patient at rest and obtain medical attention. DO NOT INDUCE VOMITING.

5. Fire Fighting Measures

Suitable Extinguisher Media: The product is not combustible, however if it is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand.

Unsuitable Extinguishing Media: Water jet.

Exposure Hazards: May give off toxic fumes if heated or involved in a fire. Contact with certain new, freshly cut or abraded metals may liberate hydrogen gas, which may form an explosive mixture with air under extreme conditions.

Special Protective Equipment: Full face, positive pressure, self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions:** Wear protective equipment as specified in Section 8. Do not eat, drink or smoke. Avoid contact with eyes.
- Environmental Precautions:** Eliminate all ignition sources. Keep people and animals away. Prevent entry into drains, sewers and watercourses. If spillage enters drains leading to sewerage works inform the local water company. If spillage enters rivers or watercourses inform the Environment Agency.
- Spillages:** Cordon off area. Absorb/contain spillage using inert absorbent granules, sand or earth. Transfer collected material to heavy-duty plastic/steel drums and keep in a well ventilated place for subsequent safe disposal. See Section 13.

7. Handling and Storage

- Handling:** No special precautions are necessary. When handling unopened containers follow any relevant manual handling guidance. The product is a low viscosity emulsion and may present a splashing hazard during use. Refer to Sections 6 and 8 if exposure to product is possible. Wash thoroughly with soap and water before eating, drinking or smoking, and after work.
- Storage:** Store in original containers in a well ventilated area away from heat, ignition sources or open flame. Protect from frost and direct sunlight. Containers must be kept closed when not in use to prevent the free circulation of air over the surface of the product. The product absorbs carbon dioxide on exposure to the atmosphere and may even lose water resulting in gelling of the solution, initially turning cloudy then eventually solidifying. Avoid exposure to low temperatures.
May freeze, with the separation of ice crystals, which will rise to the surface. Should this occur, warming and agitation of the material will return the product to its original condition.

8. Exposure Controls / Personal Protection

- Occupational Exposure Standards:** There are no Occupational Exposure Limits assigned to Sodium Silicate.
Note: Sodium Hydroxide has an exposure standard of $2\text{mg}/\text{m}^3$ (15min STEL). It is recommended that exposure to alkalinity calculated as NaOH should be kept below this limit.
- Engineering Control Measures:** Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection and may include physical containment and good ventilation.

Respiratory Protection:	Approved respirator and filter medium for particulates if engineering controls are unlikely to control exposure below the relevant exposure standards. All items must conform to EN149 and should be suitable for the levels of contamination present in the workplace.
Hand Protection:	Wear Nitrile, PVC or Natural Rubber gloves or gauntlets. These must be manufactured to EN374. The material breakthrough time should be stated by the glove manufacturer, and must be observed at all times.
Eye Protection:	Splash proof goggles conforming to BS 2092.
Body Protection:	Wear suitable impervious overalls.
Foot Protection:	Wear chemical resistant safety footwear.
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Appearance:	Clear viscous liquid	Boiling Point:	100°C
Odour:	Odourless	Vapour Pressure @ 20°C:	As Water
pH:	12	Evaporation Rate (Butyl Acetate = 1):	As Water
Flash Point:	N/A	Flammable Limits in Air:	Upper: N/A Lower: N/A
Solubility:	Completely miscible with water	Autoignition Temperature:	N/A
Flammability:	Not Flammable		
Specific Gravity:	1.4		

10. Stability and Reactivity

Stability:	Stable under normal conditions (see Section 7). Contact with acids will cause the liquid to gel. Absorbs carbon dioxide from the air. Ignites and maintains combustion in fluorine. Contact with wood will cause discolouration.
Materials to Avoid:	Contact with acids, aluminium, brass, tin and zinc.
Hazardous Decomposition Products:	Contact with new, freshly cut or abraded aluminium, brass, tin and zinc may produce hydrogen gas, which may form an explosive mixture with air under extreme conditions.

11. Toxicological Information

There is no data available on the product itself. The following is derived from information provided by the raw material suppliers.

- Inhalation:** Causes irritation. May cause pulmonary oedema.
- Skin:** Causes irritation.
- Eye:** Causes severe irritation and may cause corneal damage.
- Ingestion:** Causes irritation, systemic dehydration and nausea. Ingestion of large amounts may result in severe abdominal pain, accompanied by vomiting and diarrhoea.

12. Ecological Information

There is no data available on the product itself. The following is derived from information provided by the raw material suppliers.

Ecotoxicity: An increase in pH to 10 or more is lethal to aquatic life.

Bioaccumulation: There is no evidence of bioaccumulation or tainting of seafood.

The product is practically non-toxic to living resources, 96hr LC50 = 100-1000mg/ltr.

13. Disposal Considerations

Waste product must not be discharged directly to drains or waterways without treatment. Disposal of product, solid waste and packaging should always comply with local, national or EU regulations and in compliance with the Environmental Protection (Duty of Care) Regulations 1991, and be undertaken by an authorised contractor.

14. Transport Information

Not classified as dangerous in the meaning of the transport regulations.

15. Regulatory Information

EU Classification and Labelling Particulars:

Designated Name: CONSEAL SILICATE

Classification: Irritant

Indication(s) of Danger: Xi

Risk and Safety Phrases:

- R38: Irritating to skin.
R41: Risk of serious damage to eyes.
S2: Keep out of the reach of children.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39: Wear suitable gloves and eye/face protection.

UK Guidance Publications: EH40; Occupational Exposure Limits, HSE. Revised annually.
EH26; Occupational Skin Diseases - Health and Safety Precautions, HSE.

UK Legislation: Health and Safety at Work, etc Act, 1974, and relevant Statutory Provisions.
Control of Substances Hazardous to Health Regulations, 1999.
The Manual Handling Operations Regulations, 1992.

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The Personal Protective Equipment at Work Regulations,
1992.
Chemicals (Hazard Information and Packaging for Supply)
Regulations, 2002 - CHIP 3.

16. Other Information

Full Text of R-Phrases Referred to above:

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

Training Advice: Do not use unless trained to do so. Refer to the Technical Data Sheet for the product.

Recommended Uses: For professional use only. This product is intended for use as dustproofers for concrete surfaces.

Further Information: This Safety Data Sheet was compiled in accordance with EU Directives 67/548/EEC and 1999/45/EC. Reference was also made to the above legislation and guidance publications.

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Changes in this Version: Sections 5 and 10 to amend reaction products in contact with certain metals.

Prepared By: F. Stratton

Disclaimer: The information in this document is offered for general health and safety guidance only and is not intended to be a definitive source of advice, nor does it constitute a risk assessment, for which the user is responsible. All information provided in this document is believed to be accurate to the best of our knowledge. Users of the products referred to should observe the recommendations, conditions and instructions relating to any relevant product label, usage information, consent or approval in force at the time. Further and more specific information may be obtained from the supplier on request.