

MATERIAL SAFETY DATA SHEET

According to EC directive 93/112/EC.

1. PRODUCT AND COMPANY IDENTIFICATION.

Trade Name: **SODIUM SILICATE SOLUTION Q70/79**
Product Description: Aqueous solution of Sodium silicate, molar ratio >3,2
Manufacturer/Supplier: Central Chemical Supplies Limited
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2. COMPOSITION/INFORMATION ON INGREDIENTS.

Component	EC No.	Concentration	CAS No	Risk/Hazard	Symbol
Sodium silicate Molar ratio > 3,2	215-687-4	32-40%	1344-09-8	R36/37/38	Xi

3. HAZARD IDENTIFICATION.

Hazard Identification: Not classified as hazardous according to the EEC
Dangerous Preparation Directive 1999/45/EG.

The product is alkaline.

4. FIRST AID MEASURES.

Symptoms and effects: No typical symptoms and effects known.

First Aid:

General: In all cases of doubt, or when symptoms persist, seek medical attention.

First Aid, Inhalation: Not likely to occur. Move to fresh air.

First Aid, Ingestion: Rinse mouth. Give water to drink.

First Aid, skin: Wash immediately with plenty of water. Seek medical attention if irritation develops.

First Aid, Eyes: Thoroughly rinse immediately with plenty of water for 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Ophthalmic treatment necessary.

Advice to physicians: No specific recommendations.

5. FIRE FIGHTING MEASURES

Extinguishing Media:	Not combustible. Use extinguishing media appropriate to the source of the fire. Unsuitable extinguishing media are not known.
Special exposure hazards:	Beware of the caustic aqueous solution of the product.
Hazardous decomposition/ Combustion products:	None known.
Protective equipment:	Use appropriate protective equipment to the source of the fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid contact with skin and eyes. Do not breathe aerosols. High risk of slipping due to leakage of product. For personal protection, see section 8.
Environmental precautions:	Do not allow to enter drains, surface water, groundwater and soil.
Methods for cleaning up:	Pick up rest with absorbent material (e.g. sand, sawdust, general purpose binder).

7. HANDLING AND STORAGE

Handling:	Avoid contact with skin, eyes. Do not breath aerosols. The usual precautionary measures for handling chemicals should be observed. For personal protection see section 8.
Fire and Explosion prevention:	No specific recommendations.
Storage requirements:	Protect from frost. Recommended storage temperature: 15-60°C Keep the original package or container closed if not in use. Do not store in galvanized containers, containers made of aluminium, other light metals or glass. Do not store with acids.
Other information:	For materials to be used in installations and equipment refer to the heading 'storage conditions' and section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	Avoid the creation of aerosol. If the creation of aerosols cannot be avoided, insure good ventilation of the working area.
Exposure limits:	No exposure limit has been established.
Personal Protective equipment:	

Respiratory:	In case of creation of aerosols and insufficient ventilation, wear suitable respiratory equipment (filtering half-mask with protection against aerosols.)
Hand:	Wear chemical or alkali resistant protective gloves (according to EN 374, cat. III).
Eye protection:	Wear safety glasses.
Skin and body:	Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Viscous liquid.
Colour:	Colourless.
Odour:	Odourless.
Density:	1300-1420 kg/m ³ (20°C)
Viscosity:	20-500mPas (20°C)
PH value:	<11.45
Boiling Range/Point (°C):	approx. 100
Melt/freeze point (°C):	approx. -3
Vapour Pressure:	approx. 2.2 kPa (20°C) (same as water)
Flash Point (°C):	non-combustible.
Auto-ignition temperature (°C):	non-combustible
Explosive properties:	not applicable.
Solubility in water:	completely miscible.
Solubility in other solvents:	not determined.

10. STABILITY AND REACTIVITY

Stability:	The product is stable.
Conditions to avoid:	None known.
Materials to avoid:	The product reacts with aluminium and other light metals and their alloys, tin and zinc to generate hydrogen which can form explosive mixture with air. The product sticks to and may etch glass surfaces. Acid decomposes the product and silicic acid precipitates. Reacts with acids with formation of heat.
Hazardous decomposition products:	None known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Oral LD50: rat:>2000mg/kg Dermal LD50: no data available. Inhalation LC50: no data available.
Irritation: Skin:	Slightly irritating to skin but not sufficient for classification.
Eye:	Slightly irritating to eyes but not sufficient for classification.
Sensitization:	Not sensitizing (Lit.)
Genotoxicity:	Not mutagenic (in vitro) (Lit.)
Other toxicological Information:	not carcinogenic (Lit.)

12. ECOLOGICAL INFORMATION

Ecotoxicity: Fish:	96h-LC50(Brachydanio rerio, OECD no. 203): 3185 mg/l (pH 10.1)
Daphnia:	48h-EC50(Daphnia magna): 4857 mg/l
Bacteria:	48h-EC0 (Pseudomonas putida, OECD no. 209) >1000mg/l
Environmental behaviour: Degradation Abiotic:	In an aqueous solution of pH=<9 the silicate is mineralized and precipitated. The maximum concentration of soluble silicates at this pH is 120mg/l.
Degradation Biotic: Bioaccumulation:	not applicable. No bioaccumulation potential. Silicon materials such as silicates are used physiologically by algae, plants without retention.
Other information:	If not neutralized, this product can be toxic for aquatic organisms because of its alkalinity. The pH rise is responsible for the environmental effect on the aquatic life.

13. DISPOSAL

Product Disposal:	Disposal in accordance with EC directive 91/692/EEC. Waste code number EWC 060299.
Contaminated Packaging:	Contaminated containers must be completely emptied and may be re-used after proper cleaning.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

15. REGULATORY INFORMATION

Chemical Description	Sodium silicate, solution, molar ratio >3.2
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E-C Number
Classification Based on

N/A
Tests
Not classified as hazardous for supply.

16. OTHER INFORMATION

Revision Comments:

New issue. CHIP 3 updates.

Disclaimer

The information contained in this document is intended to describe the product only in terms of health, safety and environmental requirements for the purposes of its safe handling, use and disposal and is to the best of Central Chemical Supplies Limited knowledge and belief correct. Central Chemical Supplies Limited Technical Services will be pleased to give further advice and assistance, but customers must satisfy themselves (by appropriate testing if necessary) that the product is suitable for their purposes and conditions of use and that their facilities and arrangements are suitable for handling or using the product. Accordingly Central Chemical Supplies Limited disclaims any liability for loss, injury or damage which may result from the use of the product, this information or from such advice and assistance save as may be expressly agreed under its terms of sale. This information does not comprise a technical or performance specification for the product and customers are referred to any relevant product technical information or specification issued by Central Chemical Supplies Limited.

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