



## SAFETY DATA SHEET SODIUM SILICATE SOLUTION (2.6-3.2 MR)

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

#### 1.1. Product identifier

|                       |                                                                |
|-----------------------|----------------------------------------------------------------|
| Product name          | SODIUM SILICATE SOLUTION (2.6-3.2 MR)                          |
| Product number        | 11472                                                          |
| Synonyms; trade names | CRYSTAL 0096, SOD SILICATE SOL 0096 XTL, SOD SILICATE 295-4748 |

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

|                 |                                                                           |
|-----------------|---------------------------------------------------------------------------|
| Identified uses | Process Additive For further information, see attached Exposure Scenario. |
|-----------------|---------------------------------------------------------------------------|

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

|          |                                                                                                                                                                     |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supplier | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>BD3 7AY<br>+44 1274 267300<br>+44 1274 267306<br>SDS.EMEA@univarsolutions.com |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 1.4. Emergency telephone number

|                     |                                |
|---------------------|--------------------------------|
| Emergency telephone | SGS - +32 (0)3 575 55 55 (24h) |
| Sds No.             | 11472                          |

### SECTION 2: Hazards identification

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

##### Classification (EC 1272/2008)

|                       |                                          |
|-----------------------|------------------------------------------|
| Physical hazards      | Not Classified                           |
| Health hazards        | Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 |
| Environmental hazards | Not Classified                           |

#### 2.2. Label elements

##### Hazard pictograms



|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Signal word       | Warning                                                             |
| Hazard statements | H315 Causes skin irritation.<br>H319 Causes serious eye irritation. |

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

**Precautionary statements**

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332+P313 If skin irritation occurs: Get medical advice/ attention.  
P337+P313 If eye irritation persists: Get medical advice/ attention.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. (@ >= 1%)

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

|                                         |                      |                                                  |       |
|-----------------------------------------|----------------------|--------------------------------------------------|-------|
| SILICIC ACID SODIUM SALT (MR>2.6-<=3.2) |                      |                                                  | > 30% |
| CAS number: 1344-09-8                   | EC number: 215-687-4 | REACH registration number: 01-2119448725-31-XXXX |       |
| <b>Classification</b>                   |                      |                                                  |       |
| Skin Irrit. 2 - H315                    |                      |                                                  |       |
| Eye Irrit. 2 - H319                     |                      |                                                  |       |

The full text for all hazard statements is displayed in Section 16.

**Composition comments** The data shown are in accordance with the latest EC Directives.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                     |                                                                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues. If breathing stops, provide artificial respiration. Get medical attention immediately. |
| <b>Ingestion</b>    | Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.                                                                                                                                                              |
| <b>Skin contact</b> | After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention if symptoms are severe or persist after washing.                                                     |
| <b>Eye contact</b>  | Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.                               |

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

|                     |                                |
|---------------------|--------------------------------|
| <b>Skin contact</b> | Causes skin irritation.        |
| <b>Eye contact</b>  | Causes serious eye irritation. |

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

**Notes for the doctor** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                       |                                                                        |
|---------------------------------------|------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Extinguish with foam, carbon dioxide, dry powder or water fog.         |
| <b>Unsuitable extinguishing media</b> | Do not use water jet as an extinguisher, as this will spread the fire. |

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

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

**Hazardous combustion products** When heated, vapours/gases hazardous to health may be formed.

### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid the spillage or runoff entering drains, sewers or watercourses. Contain and collect extinguishing water. Avoid breathing fire gases or vapours.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Keep unnecessary and unprotected personnel away from the spillage. No action shall be taken without appropriate training or involving any personal risk. Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

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

**Methods for cleaning up** Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists. Wear protective clothing as described in Section 8 of this safety data sheet.

**Advice on general occupational hygiene** Provide eyewash station and safety shower. When using do not eat, drink or smoke. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Take off immediately all contaminated clothing and wash it before reuse.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Avoid exposure to high temperatures or direct sunlight. Avoid contact with the following materials: Strong alkalis. Strong acids.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

**SILICIC ACID SODIUM SALT (MR>2.6-<=3.2) (CAS: 1344-09-8)**

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

### DNEL

Workers - Inhalation; Long term systemic effects: 5.6 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 1.59 mg/kg/day  
 Consumer - Inhalation; Long term systemic effects: 1.38 mg/m<sup>3</sup>  
 Consumer - Oral; Long term systemic effects: 0.8 mg/kg/day  
 Consumer - Dermal; Long term systemic effects: 0.8 mg/kg/day

### PNEC

- Fresh water; 0.073 mg/l  
 - marine water; 0.0073 mg/l  
 - Intermittent release; 0.73 mg/l  
 - Sediment (Freshwater); 0.0577 mg/kg  
 - Sediment (Marinewater); 0.00577 mg/kg  
 - Soil; 0.016 mg/kg  
 - STP; 58 mg/kg

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Provide eyewash station and safety shower.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex). To protect hands from chemicals, gloves should comply with European Standard EN374.

#### Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

#### Hygiene measures

Wash after use and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Remove contaminated clothing and protective equipment before entering eating areas. Take off immediately all contaminated clothing and wash it before reuse.

#### Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Gas filter, type B. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.

## SECTION 9: Physical and chemical properties

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

|                 |                                      |
|-----------------|--------------------------------------|
| Appearance      | Liquid.                              |
| Colour          | Colourless.                          |
| Odour           | Odourless.                           |
| Odour threshold | No information available.            |
| pH              | pH (concentrated solution): Alkaline |

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| <b>Melting point</b>                                | No information available. |
| <b>Pour Point</b>                                   | No information available. |
| <b>Freezing Point</b>                               | No information available. |
| <b>Initial boiling point and range</b>              | 100°C @                   |
| <b>Flash point</b>                                  | No information available. |
| <b>Evaporation rate</b>                             | No information available. |
| <b>Evaporation factor</b>                           | No information available. |
| <b>Flammability (solid, gas)</b>                    | No information available. |
| <b>Upper/lower flammability or explosive limits</b> | No information available. |
| <b>Other flammability</b>                           | No information available. |
| <b>Vapour pressure</b>                              | No information available. |
| <b>Vapour density</b>                               | No information available. |
| <b>Relative density</b>                             | No information available. |
| <b>Bulk density</b>                                 | No information available. |
| <b>Solubility(ies)</b>                              | Soluble in water.         |
| <b>Partition coefficient</b>                        | No information available. |
| <b>Auto-ignition temperature</b>                    | No information available. |
| <b>Decomposition Temperature</b>                    | No information available. |
| <b>Viscosity</b>                                    | No information available. |
| <b>Explosive properties</b>                         | No information available. |
| <b>Explosive under the influence of a flame</b>     | No information available. |
| <b>Oxidising properties</b>                         | No information available. |

### 9.2. Other information

|                          |                           |
|--------------------------|---------------------------|
| <b>Other information</b> | No information available. |
|--------------------------|---------------------------|

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

|                   |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| <b>Reactivity</b> | The following materials may react with the product: Strong acids. Strong alkalis. |
|-------------------|-----------------------------------------------------------------------------------|

### 10.2. Chemical stability

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| <b>Stability</b> | Stable at normal ambient temperatures and when used as recommended. |
|------------------|---------------------------------------------------------------------|

### 10.3. Possibility of hazardous reactions

|                                           |                                                                     |
|-------------------------------------------|---------------------------------------------------------------------|
| <b>Possibility of hazardous reactions</b> | Stable at normal ambient temperatures and when used as recommended. |
|-------------------------------------------|---------------------------------------------------------------------|

### 10.4. Conditions to avoid

|                            |                                                         |
|----------------------------|---------------------------------------------------------|
| <b>Conditions to avoid</b> | Avoid exposure to high temperatures or direct sunlight. |
|----------------------------|---------------------------------------------------------|

### 10.5. Incompatible materials

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

**Materials to avoid** Avoid contact with the following materials: Strong acids. Strong alkalis.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** When heated, vapours/gases hazardous to health may be formed.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** No information available.

#### Skin corrosion/irritation

**Skin corrosion/irritation** Causes skin irritation.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

#### Aspiration hazard

**Aspiration hazard** No information available.

**Inhalation** Gas or vapour in high concentrations may irritate the respiratory system.

**Ingestion** The product irritates mucous membranes and may cause abdominal discomfort if swallowed.

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye irritation.

### Toxicological information on ingredients.

#### SILICIC ACID SODIUM SALT (MR>2.6-<=3.2)

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> > 5000 mg/kg, Dermal, Rat

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** LD<sub>50</sub> > 2.06 mg/l, Inhalation,

##### Skin corrosion/irritation

**Skin corrosion/irritation** Causes skin irritation.

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

## SECTION 12: Ecological information

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment. The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

### 12.1. Toxicity

#### Ecological information on ingredients.

#### SILICIC ACID SODIUM SALT (MR>2.6-<=3.2)

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 260 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 1700 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 305.4 mg/l, Scenedesmus subspicatus

### 12.2. Persistence and degradability

**Persistence and degradability** The product contains inorganic substances which are not biodegradable.

#### Ecological information on ingredients.

#### SILICIC ACID SODIUM SALT (MR>2.6-<=3.2)

**Persistence and degradability** The product contains inorganic substances which are not biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No information available.

**Partition coefficient** No information available.

### 12.4. Mobility in soil

**Mobility** The product is soluble in water.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB. (@ >= 1%)

### 12.6. Other adverse effects

**Other adverse effects** No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty. Do not discharge into drains or watercourses or onto the ground.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

**Waste class** Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

### SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

No transport warning sign required.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78  
and the IBC Code

### SECTION 15: Regulatory information

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

##### **EU legislation**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

#### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

### SECTION 16: Other information



## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

### Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.  
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
 CAS: Chemical Abstracts Service.  
 DNEL: Derived No Effect Level.  
 IATA: International Air Transport Association.  
 IMDG: International Maritime Dangerous Goods.  
 Kow: Octanol-water partition coefficient.  
 LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.  
 LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).  
 PBT: Persistent, Bioaccumulative and Toxic substance.  
 PNEC: Predicted No Effect Concentration.  
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.  
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.  
 vPvB: Very Persistent and Very Bioaccumulative.  
 IARC: International Agency for Research on Cancer.  
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.  
 cATpE: Converted Acute Toxicity Point Estimate.  
 BCF: Bioconcentration Factor.  
 BOD: Biochemical Oxygen Demand.  
 EC<sub>50</sub>: 50% of maximal Effective Concentration.  
 LOAEC: Lowest Observed Adverse Effect Concentration.  
 LOAEL: Lowest Observed Adverse Effect Level.  
 NOAEC: No Observed Adverse Effect Concentration.  
 NOAEL: No Observed Adverse Effect Level.  
 NOEC: No Observed Effect Concentration.  
 LOEC: Lowest Observed Effect Concentration.  
 DMEL: Derived Minimal Effect Level.  
 EL50: Exposure Limit 50  
 hPa: Hectopascal  
 LL50: Lethal Loading fifty  
 OECD: Organisation for Economic Co-operation and Development  
 POW: Octanol-water partition coefficient  
 SCBA: self-contained breathing apparatus  
 STP: Sewage Treatment Plant  
 VOC: Volatile Organic Compounds

### Classification abbreviations and acronyms

Acute Tox. = Acute toxicity  
 Aquatic Acute = Hazardous to the aquatic environment (acute)  
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

### Key literature references and sources for data

Supplier's information. ECHA Disseminated REACH Dossier

### Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

### Revision date

04/02/2020

### Version number

2.000

### Supersedes date

26/05/2015

### SDS number

11472

## SODIUM SILICATE SOLUTION (2.6-3.2 MR)

**SDS status**

Approved.

**Hazard statements in full**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

**Signature**

J Spenceley



**Exposure scenario**  
**Workplace exposure to sodium silicate powder**

**Identification**

|                                  |                                                                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product name</b>              | Sodium Silicate                                                                                                                                                     |
| <b>REACH registration number</b> | 01-2119448725-31-XXXX                                                                                                                                               |
| <b>CAS number</b>                | 1344-09-8                                                                                                                                                           |
| <b>EC number</b>                 | 215-687-4                                                                                                                                                           |
| <b>Supplier</b>                  | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>BD3 7AY<br>+44 1274 267300<br>+44 1274 267306<br>SDS.EMEA@univarsolutions.com |

**1. Title of exposure scenario**

|                    |                                               |
|--------------------|-----------------------------------------------|
| <b>Main title</b>  | Workplace exposure to sodium silicate powder  |
| <b>Main sector</b> | SU3 Industrial uses<br>SU22 Professional uses |

**Worker**

## Workplace exposure to sodium silicate powder

### Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions  
 PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions  
 PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition  
 PROC4 Chemical production where opportunity for exposure arises  
 PROC5 Mixing or blending in batch processes  
 PROC6 Calendering operations.  
 PROC7 Industrial spraying  
 PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities  
 PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities  
 PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)  
 PROC10 Roller application or brushing  
 PROC11 Non industrial spraying  
 PROC13 Treatment of articles by dipping and pouring.  
 PROC14 Tableting, compression, extrusion, pelletisation, granulation  
 PROC22 Manufacturing and processing of minerals and/or metals at substantially elevated temperature  
 PROC23 Open processing and transfer operations at substantially elevated temperature  
 PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles

### 2. Conditions of use affecting exposure (Industrial - Environment 1)

#### Product characteristics

Not regarded as dangerous for the environment. No exposure scenario required.

### 2. Conditions of use affecting exposure (Workers - Health 1)

#### Product characteristics

**Physical state** Solid

**Concentration details** Covers concentrations up to 100 %. Unless otherwise stated.

#### Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

#### Other given operational conditions affecting workers exposure

**Setting** Indoor/outdoor use.

Assumes a good basic standard of occupational hygiene is implemented.

#### Technical conditions and measures at process level (source) to prevent release

## Workplace exposure to sodium silicate powder

**Technical protective measures** Consider technical advances and process upgrades (including automation) for the elimination of releases. minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down systems and clear transfer lines prior to breaking containment. Clean/flush equipment, where possible, prior to maintenance. Where there is potential for exposure: restrict access to authorised persons; provide specific activity training to operators to minimise exposures; wear suitable gloves and coveralls to prevent skin contamination; wear respiratory protection when its use is identified for certain contributing scenario; clear up spills immediately and dispose of waste safely. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Regularly inspect, test and maintain all control measures. Consider the need for risk based health surveillance. PROC7 Industrial spraying PROC11 Non industrial spraying Provide extract ventilation to points where emissions occur.

### Risk management measures

Wear suitable gloves (tested to EN374) and eye protection.

PROC7 Industrial spraying

PROC11 Non industrial spraying

Wear a respirator conforming to EN140 with Type A/P2 filter or better.

### 3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

### 3. Exposure estimation (Health 1)

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.



**Exposure scenario**  
**Workplace exposure to sodium silicate solutions**

**Identification**

|                                  |                                                                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product name</b>              | Sodium Silicate                                                                                                                                                     |
| <b>REACH registration number</b> | 01-2119448725-31-XXXX                                                                                                                                               |
| <b>CAS number</b>                | 1344-09-8                                                                                                                                                           |
| <b>EC number</b>                 | 215-687-4                                                                                                                                                           |
| <b>Supplier</b>                  | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>BD3 7AY<br>+44 1274 267300<br>+44 1274 267306<br>SDS.EMEA@univarsolutions.com |

**1. Title of exposure scenario**

|                    |                                                 |
|--------------------|-------------------------------------------------|
| <b>Main title</b>  | Workplace exposure to sodium silicate solutions |
| <b>Main sector</b> | SU3 Industrial uses<br>SU22 Professional uses   |

**Worker**

## Workplace exposure to sodium silicate solutions

### Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions  
 PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions  
 PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition  
 PROC4 Chemical production where opportunity for exposure arises  
 PROC5 Mixing or blending in batch processes  
 PROC6 Calendering operations.  
 PROC7 Industrial spraying  
 PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities  
 PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities  
 PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)  
 PROC10 Roller application or brushing  
 PROC11 Non industrial spraying  
 PROC13 Treatment of articles by dipping and pouring.  
 PROC14 Tableting, compression, extrusion, pelletisation, granulation  
 PROC22 Manufacturing and processing of minerals and/or metals at substantially elevated temperature  
 PROC23 Open processing and transfer operations at substantially elevated temperature  
 PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles

### 2. Conditions of use affecting exposure (Industrial - Environment 1)

#### Product characteristics

Not regarded as dangerous for the environment. No exposure scenario required.

### 2. Conditions of use affecting exposure (Workers - Health 1)

#### Product characteristics

**Physical state** Liquid

**Concentration details** Covers concentrations up to 100 %. Unless otherwise stated.

#### Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

#### Other given operational conditions affecting workers exposure

**Setting** Indoor/outdoor use.

Assumes a good basic standard of occupational hygiene is implemented.

#### Technical conditions and measures at process level (source) to prevent release

## Workplace exposure to sodium silicate solutions

**Technical protective measures** Consider technical advances and process upgrades (including automation) for the elimination of releases. minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down systems and clear transfer lines prior to breaking containment. Clean/flush equipment, where possible, prior to maintenance. Where there is potential for exposure: restrict access to authorised persons; provide specific activity training to operators to minimise exposures; wear suitable gloves and coveralls to prevent skin contamination; wear respiratory protection when its use is identified for certain contributing scenario; clear up spills immediately and dispose of waste safely. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Regularly inspect, test and maintain all control measures. Consider the need for risk based health surveillance. PROC7 Industrial spraying PROC11 Non industrial spraying Provide extract ventilation to points where emissions occur.

### Organisational measures to prevent/limit releases, dispersion and exposure

**Organisational measures** PROC7 Industrial spraying PROC11 Non industrial spraying Avoid carrying out operation for more than 1 hour.

### Risk management measures

Wear suitable gloves (tested to EN374) and eye protection.

PROC7 Industrial spraying

PROC11 Non industrial spraying

Wear a respirator conforming to EN140 with Type A/P2 filter or better.

### 3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

### 3. Exposure estimation (Health 1)

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.





## Exposure scenario Use in Consumer products

### Identification

|                           |                                                                                                                                                                     |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name              | Sodium Silicate                                                                                                                                                     |
| REACH registration number | 01-2119448725-31-XXXX                                                                                                                                               |
| CAS number                | 1344-09-8                                                                                                                                                           |
| EC number                 | 215-687-4                                                                                                                                                           |
| Supplier                  | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>BD3 7AY<br>+44 1274 267300<br>+44 1274 267306<br>SDS.EMEA@univarsolutions.com |

### 1. Title of exposure scenario

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main title       | Use in Consumer products                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Product category | PC1 Adhesives, sealants.<br>PC3 Air care products.<br>PC8 Biocidal products<br>PC9a Coatings and paints, thinners, paint removers.<br>PC9b Fillers, putties, plasters, modelling clay.<br>PC9c Finger paints.<br>PC15 Non-metal-surface treatment products.<br>PC16 Heat transfer fluids.<br>PC17 Hydraulic fluids.<br>PC31 Polishes and wax blends.<br>PC34 Textile dyes and impregnating products<br>PC35 Washing and cleaning products<br>PC39 Cosmetics, personal care. |
| Main sector      | SU21 Consumer uses                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

### 2. Conditions of use affecting exposure (Non-industrial - Environment 1)

#### Product characteristics

Not regarded as dangerous for the environment. No exposure scenario required.

### 2. Conditions of use affecting exposure (Non-industrial - Health 1)

#### Product characteristics

|                       |                                                             |
|-----------------------|-------------------------------------------------------------|
| Physical state        | Powder products , or: Liquid products                       |
| Concentration details | Covers concentrations up to 100 %. Unless otherwise stated. |

## Use in Consumer products

### Amounts used

For each use event, covers use amounts up to 37500 g.  
Unless otherwise stated.

### Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

### Human factors not influenced by risk management

**Potentially exposed body parts** Covers skin contact area up to 6660 cm<sup>2</sup>. Unless otherwise stated.

### Other given operational conditions affecting Non-industrial exposure

**Temperature** Assumes activities are at ambient temperature (unless stated differently).

**Room size** 20 m<sup>3</sup>

**Ventilation rate** Covers use under typical household ventilation.

### Other given operational conditions affecting Non-industrial exposure

**Consumer information** Read label before use. Avoid using without gloves.

No specific risk management measure identified beyond those operational conditions stated.

### 3. Exposure estimation (Environment 1)

As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

### 3. Exposure estimation (Health 1)

Qualitative approach used to conclude safe use.