

This safety data sheet was created pursuant to the requirements of:  
UK REACH Regulations (SI 2019/758 as amended)

Revision date 09-May-2025

Revision Number 1

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

### 1.1. Product identifier

**Product Code(s)** 124716

**Safety data sheet number** 124716

**Product Name** SODIUM HYDROXIDE 18 - 20% SOLUTION

**Synonyms** CAUSTIC SODA 18% MEMBRANE SOL, SODIUM HYDROXIDE SOLUTION 18%, CAUSTIC SODA 20% SOL, SODIUM HYDROXIDE SOLUTION 20%, CAUSTIC SODA 20.5%

**Pure substance/mixture** Mixture

Contains SODIUM HYDROXIDE

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

**Recommended use** Chemicals used in the synthesis and / or formulation of industrial products  
Chemical intermediate  
Cleaning agent

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

#### Supplier

Univar Solutions UK Ltd  
Aquarius House  
6 Mid Point Business Park  
Bradford  
GBR

For further information, please contact

**E-mail address** SDS.EMEA@univarsolutions.com

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

### 1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Corrosive to metals               | Category 1 - (H290)                |
| Skin corrosion/irritation         | Category 1 Sub-category A - (H314) |
| Serious eye damage/eye irritation | Category 1 - (H318)                |

### 2.2. Label elements

Contains SODIUM HYDROXIDE



### Signal word

Danger

### Hazard statements

H314 - Causes severe skin burns and eye damage

H290 - May be corrosive to metals

### Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P280 - Wear protective gloves/protective clothing and eye/face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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

P310 - Immediately call a POISON CENTER or doctor

### Unknown aquatic toxicity

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

| Chemical name                 | Weight-% | EC No (EU Index No)         | UK REACH registration number | Classification according to GB CLP (SI 2020/1567 as amended)     | Specific concentration limit (SCL)                                                                                           | M-Factor | M-Factor (long-term) |
|-------------------------------|----------|-----------------------------|------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------|----------------------|
| WATER<br>7732-18-5            | 80 - 90% | 231-791-2                   | -                            | Not Classified                                                   | -                                                                                                                            | -        | -                    |
| SODIUM HYDROXIDE<br>1310-73-2 | 10 - 20% | 215-185-5<br>(011-002-00-6) | UK-01-6126796028-6-XXXX      | Met. Corr. 1 (H290)<br>Skin Corr. 1A (H314)<br>Eye Dam. 1 (H318) | Eye Irrit. 2 ::<br>0.5%<=C<2%<br>Skin Corr. 1A ::<br>C>=5%<br>Skin Corr. 1B ::<br>2%<=C<5%<br>Skin Irrit. 2 ::<br>0.5%<=C<2% | -        | -                    |

### Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (UK REACH Article 59)

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

|                                           |                                                                                                                                                                                                                                                           |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.                                                                                                                                                         |
| <b>Inhalation</b>                         | Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention.     |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention. |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.                                                                                                                    |
| <b>Ingestion</b>                          | Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.                                                                                                                              |
| <b>Self-protection of the first aider</b> | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).                                                                                                                                                             |

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

|                  |                                                                                                                                          |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptoms</b>  | Burning sensation.                                                                                                                       |
| <b>Eyes</b>      | Causes severe burns. Burning sensation.                                                                                                  |
| <b>Dermal</b>    | Causes severe burns. Burning sensation.                                                                                                  |
| <b>Ingestion</b> | May cause severe burns of the mouth and throat if orally ingested, as well as a danger of perforation of the oesophagus and the stomach. |

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

|                        |                        |
|------------------------|------------------------|
| <b>Note to doctors</b> | Treat symptomatically. |
|------------------------|------------------------|

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

|                                       |                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b>   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Large Fire</b>                     | CAUTION: Use of water spray when fighting fire may be inefficient.                                      |
| <b>Unsuitable extinguishing media</b> | Do not scatter spilled material with high pressure water streams.                                       |

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

|                                                   |                                                                                                                                         |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specific hazards arising from the chemical</b> | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. |
| <b>Hazardous combustion products</b>              | Carbon oxides. Sodium Oxides.                                                                                                           |

**5.3. Advice for firefighters**

|                                                                       |                                                                                                                                    |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Special protective equipment and precautions for fire-fighters</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

## **6.2. Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

## **7.1. Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations** Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture.

**Packaging materials** Corrosive to metals.

## **7.3. Specific end use(s)**

**Specific use(s)**  
See section 1 for more information.

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

# **SECTION 8: Exposure controls/personal protection**

## **8.1. Control parameters**

### **Exposure Limits**

| Chemical name                 | United Kingdom            |
|-------------------------------|---------------------------|
| SODIUM HYDROXIDE<br>1310-73-2 | STEL: 2 mg/m <sup>3</sup> |

**Biological occupational exposure limits** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL) - Workers**

| Chemical name                 | Oral | Dermal | Inhalation                  |
|-------------------------------|------|--------|-----------------------------|
| SODIUM HYDROXIDE<br>1310-73-2 |      |        | 1 mg/m <sup>3</sup> [5] [6] |

[5] Local health effects.

[6] Long term.

**Derived No Effect Level (DNEL) - General Public**

| Chemical name                 | Oral | Dermal | Inhalation                  |
|-------------------------------|------|--------|-----------------------------|
| SODIUM HYDROXIDE<br>1310-73-2 |      |        | 1 mg/m <sup>3</sup> [5] [6] |

[5] Local health effects.

[6] Long term.

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Engineering controls** No information available.

**Personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

**Hand protection** Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

**Physical state** Liquid  
**Appearance** Liquid  
**Colour** Colourless  
**Odour** Odourless.  
**Odour threshold** No information available

**Property****Values**

**Melting point / freezing point**  
**Initial boiling point and boiling range** > 100.00 °C  
**Flammability**  
**Flammability Limit in Air**

**Remarks • Method**

No information available.

No information available.

No information available.

|                                        |                          |                           |
|----------------------------------------|--------------------------|---------------------------|
| Upper flammability or explosive limits |                          |                           |
| Lower flammability or explosive limits |                          |                           |
| Flash point                            |                          | No information available. |
| Autoignition temperature               |                          | No information available. |
| Decomposition temperature              |                          | No information available. |
| pH                                     | < 14.0                   |                           |
| pH (as aqueous solution)               |                          | No information available. |
| Kinematic viscosity                    |                          | No information available. |
| Dynamic viscosity                      |                          | No information available. |
| Water solubility                       | Soluble in water         |                           |
| Solubility(ies)                        |                          | No information available. |
| Partition coefficient                  |                          | No information available. |
| Vapour pressure                        |                          | No information available. |
| Relative density                       | 1.00                     |                           |
| Bulk density                           |                          | No information available  |
| Liquid Density                         | No information available | No information available  |
| Relative vapour density                |                          | No information available. |
| Particle characteristics               |                          | No information available. |
| Particle Size                          | No information available |                           |
| Particle Size Distribution             | No information available |                           |
| Explosive properties                   | No information available |                           |
| Oxidising properties                   | No information available |                           |

**9.2. Other information****SECTION 10: Stability and reactivity****10.1. Reactivity**

Reactivity Stable under recommended storage conditions.

**10.2. Chemical stability**

Stability Stable under normal conditions.

**Explosion data**

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions Corrosive to metal.

**10.4. Conditions to avoid**

Conditions to avoid Exposure to air or moisture over prolonged periods.

**10.5. Incompatible materials**

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

**10.6. Hazardous decomposition products**

Hazardous decomposition products Carbon oxides. Sodium Oxides.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Information on likely routes of exposure**

**Product Information**

|                     |                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Contact with moist mucous membranes of the respiratory system can cause burns and lung damage.                                           |
| <b>Eye contact</b>  | Causes severe burns.                                                                                                                     |
| <b>Skin contact</b> | Causes severe burns.                                                                                                                     |
| <b>Ingestion</b>    | May cause severe burns of the mouth and throat if orally ingested, as well as a danger of perforation of the oesophagus and the stomach. |

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Acute toxicity****Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

**Component Information**

| Chemical name    | Oral LD50           | Dermal LD50             | Inhalation LC50 |
|------------------|---------------------|-------------------------|-----------------|
| SODIUM HYDROXIDE | = 325 mg/kg ( Rat ) | = 1350 mg/kg ( Rabbit ) | -               |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Causes severe burns.

**SODIUM HYDROXIDE (1310-73-2)**

| Method                                                                      | Species | Exposure route | Effective dose | Exposure time | Results                                                                                          |
|-----------------------------------------------------------------------------|---------|----------------|----------------|---------------|--------------------------------------------------------------------------------------------------|
| OECD Test No. 435: In Vitro Membrane Barrier Test Method for Skin Corrosion |         | in vitro       |                |               | Corrosive Causes severe burns Symptoms may include pain, severe local redness and tissue damage. |

**Serious eye damage/eye irritation** Causes severe burns.

**SODIUM HYDROXIDE (1310-73-2)**

| Method                                            | Species | Exposure route | Effective dose | Exposure time | Results                                                                                                    |
|---------------------------------------------------|---------|----------------|----------------|---------------|------------------------------------------------------------------------------------------------------------|
| OECD Test No. 405: Acute Eye Irritation/Corrosion | Rabbit  | eye            |                |               | Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns |

**Respiratory or skin sensitisation** No information available.

**SODIUM HYDROXIDE (1310-73-2)**

| Method           | Species    | Exposure route | Results               |
|------------------|------------|----------------|-----------------------|
| Human patch test | human data | Dermal         | Not a skin sensitiser |

**Germ cell mutagenicity** No information available.

**Component Information**

## SODIUM HYDROXIDE (1310-73-2)

| Method | Species  | Results  |
|--------|----------|----------|
|        | in vitro | Negative |

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

## SODIUM HYDROXIDE (1310-73-2)

| Method | Species | Exposure route | Effective dose | Exposure time | Results                                                                                                                                     |
|--------|---------|----------------|----------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|        |         |                |                |               | Corrosive Material is not classified as a respiratory irritant; however, Upper respiratory tract irritation or corrosivity may be expected. |

**STOT - repeated exposure** No information available.

## Component Information

## SODIUM HYDROXIDE (1310-73-2)

| Method | Species | Exposure route | Effective dose | Exposure time | Results                                                                                              |
|--------|---------|----------------|----------------|---------------|------------------------------------------------------------------------------------------------------|
|        |         |                |                |               | Based on available data, repeated exposures are not anticipated to cause significant adverse effects |

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** Not considered to be harmful to aquatic life.

#### Unknown aquatic toxicity

## SODIUM HYDROXIDE (1310-73-2)

| Method                                                    | Species                             | Endpoint type | Effective dose | Exposure time | Results |
|-----------------------------------------------------------|-------------------------------------|---------------|----------------|---------------|---------|
| OECD Test No. 203: Fish, Acute Toxicity Test              | Oncorhynchus mykiss (rainbow trout) | LC50          | 45.4 mg/L      | 96 hours      |         |
| OECD Test No. 202: Daphnia sp., Acute Immobilisation Test | aquatic invertebrates               | EC50          | 40.4 mg/L      | 48 hours      |         |
| DIN 38412 Part 27                                         | Pseudomonas                         | EC0           | >100 mg/L      | 30 minutes    |         |

|  |        |  |  |  |  |
|--|--------|--|--|--|--|
|  | putida |  |  |  |  |
|--|--------|--|--|--|--|

**12.2. Persistence and degradability**

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

SODIUM HYDROXIDE (1310-73-2)

| Method | Exposure time | Value | Results                   |
|--------|---------------|-------|---------------------------|
|        |               |       | Not applicable Inorganic. |

**12.3. Bioaccumulative potential**

**Bioaccumulation** Not likely to bioaccumulate.

**12.4. Mobility in soil**

**Mobility in soil** Soluble in water.

**12.5. Results of PBT and vPvB assessment**

**PBT and vPvB assessment** The product does not contain any substance(s) classified as PBT or vPvB.

| Chemical name    | PBT and vPvB assessment         |
|------------------|---------------------------------|
| SODIUM HYDROXIDE | The substance is not PBT / vPvB |

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**SECTION 14: Transport information****IATA**

|                                          |                           |
|------------------------------------------|---------------------------|
| <b>14.1 UN number or ID number</b>       | UN1824                    |
| <b>14.2 UN proper shipping name</b>      | SODIUM HYDROXIDE SOLUTION |
| <b>14.3 Transport hazard class(es)</b>   | 8                         |
| <b>14.4 Packing group</b>                | II                        |
| <b>14.5 Environmental hazards</b>        | No                        |
| <b>14.6 Special precautions for user</b> |                           |
| Special Provisions                       | A3, A803                  |
| ERG Code                                 | 8L                        |

**IMDG**

|                                          |                           |
|------------------------------------------|---------------------------|
| <b>14.1 UN number or ID number</b>       | UN1824                    |
| <b>UN proper shipping name</b>           | SODIUM HYDROXIDE SOLUTION |
| <b>14.3 Transport hazard class(es)</b>   | 8                         |
| <b>14.4 Packing group</b>                | II                        |
| <b>14.5 Environmental hazards</b>        | No                        |
| <b>14.6 Special precautions for user</b> |                           |
| Special Provisions                       | None                      |
| EmS-No                                   | F-A, S-B                  |
| <b>14.7 Maritime transport in bulk</b>   | No information available  |

according to IMO instruments

**RID**

|                                   |                           |
|-----------------------------------|---------------------------|
| 14.1 UN number or ID number       | UN1824                    |
| 14.2 UN proper shipping name      | SODIUM HYDROXIDE SOLUTION |
| 14.3 Transport hazard class(es)   | 8                         |
| 14.4 Packing group                | II                        |
| 14.5 Environmental hazards        | No                        |
| 14.6 Special precautions for user |                           |
| Special Provisions                | None                      |
| Classification code               | C5                        |

**ADR**

|                                   |                           |
|-----------------------------------|---------------------------|
| 14.1 UN number or ID number       | UN1824                    |
| 14.2 UN proper shipping name      | SODIUM HYDROXIDE SOLUTION |
| 14.3 Transport hazard class(es)   | 8                         |
| 14.4 Packing group                | II                        |
| 14.5 Environmental hazards        | No                        |
| 14.6 Special precautions for user |                           |
| Special Provisions                | None                      |
| Classification code               | C5                        |
| Tunnel restriction code           | (E)                       |

## SECTION 15: Regulatory information

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

#### National regulations

##### Authorisations and/or restrictions on use:

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

| Chemical name                | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|------------------------------|-------------------------------------------|--------------------------------------------------------|
| SODIUM HYDROXIDE - 1310-73-2 | 75                                        | -                                                      |

##### Persistent Organic Pollutants

Not applicable

##### Export Notification requirements

Not applicable

##### Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

##### The Ozone-Depleting Substances Regulations 2015

Not applicable

##### The Biocidal Products Regulations 2001 (as amended)

Not applicable

##### The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

##### Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

| Chemical name    | Poisons and Explosive Precursors                    |
|------------------|-----------------------------------------------------|
| SODIUM HYDROXIDE | Poison, Reportable 12 % of total caustic alkalinity |

#### International Inventories

|                      |                                                  |
|----------------------|--------------------------------------------------|
| <b>TSCA</b>          | Contact supplier for inventory compliance status |
| <b>DSL/NDSL</b>      | Contact supplier for inventory compliance status |
| <b>EINECS/ELINCS</b> | Contact supplier for inventory compliance status |
| <b>ENCS</b>          | Contact supplier for inventory compliance status |
| <b>IECSC</b>         | Contact supplier for inventory compliance status |
| <b>KECI</b>          | Contact supplier for inventory compliance status |
| <b>PICCS</b>         | Contact supplier for inventory compliance status |
| <b>AIIC</b>          | Contact supplier for inventory compliance status |
| <b>NZIoC</b>         | Contact supplier for inventory compliance status |

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECI** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**15.2. Chemical safety assessment**

**Chemical Safety Report** No information available

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H290 - May be corrosive to metals  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage

**Legend**

SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: Exposure controls/personal protection**

|                |                             |             |                                  |
|----------------|-----------------------------|-------------|----------------------------------|
| <b>TWA</b>     | TWA (time-weighted average) | <b>STEL</b> | STEL (Short Term Exposure Limit) |
| <b>Ceiling</b> | Maximum limit value         | <b>*</b>    | Skin designation                 |
| <b>+</b>       | Sensitisers                 |             |                                  |

Revision Note \*\*\*Indicates updated data since last publication

**Classification procedure**

|                                                                 |                    |
|-----------------------------------------------------------------|--------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used        |
| Acute oral toxicity                                             | Calculation method |
| Acute dermal toxicity                                           | Calculation method |
| Acute inhalation toxicity - gas                                 | Calculation method |
| Acute inhalation toxicity - vapour                              | Calculation method |
| Acute inhalation toxicity - dust/mist                           | Calculation method |
| Skin corrosion/irritation                                       | Calculation method |
| Serious eye damage/eye irritation                               | Calculation method |
| Respiratory sensitisation                                       | Calculation method |
| Skin sensitisation                                              | Calculation method |
| Mutagenicity                                                    | Calculation method |
| Carcinogenicity                                                 | Calculation method |
| Reproductive toxicity                                           | Calculation method |
| STOT - single exposure                                          | Calculation method |
| STOT - repeated exposure                                        | Calculation method |
| Acute aquatic toxicity                                          | Calculation method |
| Chronic aquatic toxicity                                        | Calculation method |
| Aspiration hazard                                               | Calculation method |
| Ozone                                                           | Calculation method |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
European Chemicals Agency (ECHA) (ECHA\_API)  
Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Prepared By** Jitendra Panchal

**Revision date** 09-May-2025

**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)  
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**

## Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

|                                       |                                                                                           |
|---------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Chemical name</b>                  | SODIUM HYDRIDE                                                                            |
| <b>Pure substance/mixture</b>         | Mixture                                                                                   |
| <b>REACH registration number</b>      | 01-2119457892-27-XXXX                                                                     |
| <b>Supplier</b>                       | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>GBR |
| <b>Non-Emergency Telephone Number</b> | +44 1274 267300 / +44 1274 267306                                                         |
| <b>E-mail address</b>                 | SDS.EMEA@univarsolutions.com                                                              |

### Section 1 - Title

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title</b>                               | Manufacture of substance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Type</b>                                | Worker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Main user group</b>                     | Industrial uses: Uses of substances as such or in preparations at industrial sites                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Environmental release category(ies)</b> | ERC1 - Manufacture of substances                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Process category(ies)</b>               | PROC1 - Use in closed process, no likelihood of exposure<br>PROC2 - Use in closed, continuous process with occasional controlled exposure<br>PROC3 - Use in closed batch process (synthesis or formulation)<br>PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises<br>PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities<br>PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities<br>PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) |
| <b>Sector(s) of use</b>                    | SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites<br>SU8 - Manufacture of bulk, large scale chemicals (including petroleum products)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Section 2 - Operational conditions and risk management measures

#### Section 2.1 - Control of environmental exposure

**Environmental release category(ies)** - ERC1 - Manufacture of substances

**Covers concentrations up to** 100%

#### Product characteristics

|                          |        |
|--------------------------|--------|
| Physical form of product | Liquid |
|--------------------------|--------|

#### Other operational conditions of use affecting environmental exposure

|               |            |
|---------------|------------|
| Type          | Continuous |
| Emission days | 200        |

#### Risk management measures

|                                                                                       |                                                                                                                                                         |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technical onsite conditions and measures to reduce or limit discharges, air emissions | Carefully handle the substance to minimise releases Maximise waste water re-use Prevent environmental discharge consistent with regulatory requirements |
| Additional good practice advice beyond the REACH Chemical Safety Report               | Good housekeeping- e.g. inspection procedures will ensure that there are no leaks to soil<br>Clear up spills immediately and dispose of waste safely    |

#### Control measures to prevent releases

|       |                                                            |
|-------|------------------------------------------------------------|
| Water | Ensure all waste water is collected and treated via a WWTP |
|-------|------------------------------------------------------------|

#### Conditions and measures related to external recovery of waste

|        |                                                                                              |
|--------|----------------------------------------------------------------------------------------------|
| Method | External recovery and recycling of waste should comply with applicable local and/or national |
|--------|----------------------------------------------------------------------------------------------|

|  |             |
|--|-------------|
|  | regulations |
|--|-------------|

| Control of worker exposure                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Covers concentrations up to                                                            | 100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Physical form of product                                                               | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Use frequency                                                                          | Covers daily exposures up to 8 hours (unless stated differently).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Technical conditions and measures to control dispersion from source towards the worker | Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimize 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. there is potential for exposure: restrict access to authorized persons; provide specific activity training to operators to minimize exposures; wear suitable gloves and coveralls to prevent skin contamination; wear respiratory protection when its use is identified for certain contributing scenarios; clear up spills immediately and dispose of wastes safely. safe systems of work or equivalent arrangements are in place to manage risks. Regularly inspect, test and maintain all control measures. the need for risk based health surveillance |
| Conditions and measures related to personal protection, hygiene and health evaluation  | See Section 8 for information on appropriate personal protective equipment Wear suitable gloves (tested to EN 374), coverall and eye protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Organisational measures to prevent /limit releases, dispersion and exposure            | Ensure operatives are trained to minimise exposures Automate activity where possible Use long handled tools where possible Other protection measures such as segregation of activity, minimisation of personnel, respiratory protection, impervious suits and face shields should also be considered for high dispersion activities which are likely to lead to substantial aerosol or vapour release, e.g. spraying                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Additional good practice advice beyond the REACH Chemical Safety Report                | Assumes a good basic standard of occupational hygiene is implemented                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Section 3 - Exposure estimation

#### Environmental release category(ies) - ERC1 - Manufacture of substances

#### Predicted No Effect Concentration (PNEC)

**Remarks** Substance will dissociate upon contact with water; the only effect is the pH effect, therefore after passing through the STP exposure is considered negligible and with no risk

#### Derived No Effect Level (DNEL):

Worker - inhalative, long-term - local

1 mg/m<sup>3</sup>

#### Calculation method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

| Process category(ies) | Exposure route                         | predicted exposure level      | Risk characterisation ratio (RCR) |
|-----------------------|----------------------------------------|-------------------------------|-----------------------------------|
|                       | Worker - inhalative, long-term - local | 0.14 - 0.33 mg/m <sup>3</sup> | 0.14 - 0.33                       |

### Section 4 - Guidance to check compliance with the exposure scenario

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

|                                       |                                                                                           |
|---------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Chemical name</b>                  | SODIUM HYDRIDE                                                                            |
| <b>Pure substance/mixture</b>         | Mixture                                                                                   |
| <b>REACH registration number</b>      | 01-2119457892-27-XXXX                                                                     |
| <b>Supplier</b>                       | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>GBR |
| <b>Non-Emergency Telephone Number</b> | +44 1274 267300 / +44 1274 267306                                                         |
| <b>E-mail address</b>                 | SDS.EMEA@univarsolutions.com                                                              |

### Section 1 - Title

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title</b>                               | Manufacture of substance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Type</b>                                | Worker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Main user group</b>                     | Industrial uses: Uses of substances as such or in preparations at industrial sites                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Environmental release category(ies)</b> | ERC1 - Manufacture of substances                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Process category(ies)</b>               | PROC1 - Use in closed process, no likelihood of exposure<br>PROC2 - Use in closed, continuous process with occasional controlled exposure<br>PROC3 - Use in closed batch process (synthesis or formulation)<br>PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises<br>PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities<br>PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities<br>PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) |
| <b>Sector(s) of use</b>                    | SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites<br>SU8 - Manufacture of bulk, large scale chemicals (including petroleum products)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Section 2 - Operational conditions and risk management measures

#### Section 2.1 - Control of environmental exposure

**Environmental release category(ies)** - ERC1 - Manufacture of substances

**Covers concentrations up to** 100%

#### Product characteristics

|                          |       |
|--------------------------|-------|
| Physical form of product | Solid |
|--------------------------|-------|

#### Other operational conditions of use affecting environmental exposure

|               |            |
|---------------|------------|
| Type          | Continuous |
| Emission days | 200        |

#### Risk management measures

|                                                                                       |                                                                                                                                                         |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technical onsite conditions and measures to reduce or limit discharges, air emissions | Carefully handle the substance to minimise releases Maximise waste water re-use Prevent environmental discharge consistent with regulatory requirements |
| Additional good practice advice beyond the REACH Chemical Safety Report               | Good housekeeping- e.g. inspection procedures will ensure that there are no leaks to soil<br>Clear up spills immediately and dispose of waste safely    |

#### Control measures to prevent releases

|       |                                                            |
|-------|------------------------------------------------------------|
| Water | Ensure all waste water is collected and treated via a WWTP |
|-------|------------------------------------------------------------|

#### Conditions and measures related to external recovery of waste

|        |                                                                                              |
|--------|----------------------------------------------------------------------------------------------|
| Method | External recovery and recycling of waste should comply with applicable local and/or national |
|--------|----------------------------------------------------------------------------------------------|

|  |             |
|--|-------------|
|  | regulations |
|--|-------------|

| Control of worker exposure                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Covers concentrations up to                                                            | 100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Physical form of product                                                               | Solid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Use frequency                                                                          | Covers daily exposures up to 8 hours (unless stated differently).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Technical conditions and measures to control dispersion from source towards the worker | Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimize 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. there is potential for exposure: restrict access to authorized persons; provide specific activity training to operators to minimize exposures; wear suitable gloves and coveralls to prevent skin contamination; wear respiratory protection when its use is identified for certain contributing scenarios; clear up spills immediately and dispose of wastes safely. safe systems of work or equivalent arrangements are in place to manage risks. Regularly inspect, test and maintain all control measures. the need for risk based health surveillance |
| Conditions and measures related to personal protection, hygiene and health evaluation  | See Section 8 for information on appropriate personal protective equipment Wear suitable gloves (tested to EN 374), coverall and eye protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Organisational measures to prevent /limit releases, dispersion and exposure            | Ensure operatives are trained to minimise exposures Automate activity where possible Use long handled tools where possible Other protection measures such as segregation of activity, minimisation of personnel, respiratory protection, impervious suits and face shields should also be considered for high dispersion activities which are likely to lead to substantial aerosol or vapour release, e.g. spraying                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Additional good practice advice beyond the REACH Chemical Safety Report                | Assumes a good basic standard of occupational hygiene is implemented                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Section 3 - Exposure estimation

#### Environmental release category(ies) - ERC1 - Manufacture of substances

#### Predicted No Effect Concentration (PNEC)

**Remarks** Substance will dissociate upon contact with water; the only effect is the pH effect, therefore after passing through the STP exposure is considered negligible and with no risk

#### Derived No Effect Level (DNEL):

Worker - inhalative, long-term - local

1 mg/m<sup>3</sup>

#### Calculation method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

| Process category(ies) | Exposure route                         | predicted exposure level | Risk characterisation ratio (RCR) |
|-----------------------|----------------------------------------|--------------------------|-----------------------------------|
|                       | Worker - inhalative, long-term - local | 0.26 mg/m <sup>3</sup>   | 0.26                              |

### Section 4 - Guidance to check compliance with the exposure scenario

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

|                                       |                                                                                           |
|---------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Chemical name</b>                  | SODIUM HYDRIDE                                                                            |
| <b>Pure substance/mixture</b>         | Mixture                                                                                   |
| <b>REACH registration number</b>      | 01-2119457892-27-XXXX                                                                     |
| <b>Supplier</b>                       | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>GBR |
| <b>Non-Emergency Telephone Number</b> | +44 1274 267300 / +44 1274 267306                                                         |
| <b>E-mail address</b>                 | SDS.EMEA@univarsolutions.com                                                              |

### Section 1 - Title

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title</b>                               | Industrial and Professional use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Type</b>                                | Worker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Main user group</b>                     | Industrial uses: Uses of substances as such or in preparations at industrial sites<br>Professional uses: Public domain (administration, education, entertainment, services, craftsmen)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Environmental release category(ies)</b> | ERC1 - Manufacture of substances ERC2 - Formulation of preparations (mixtures) ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates) ERC6b - Industrial use of reactive processing aids ERC7 - Industrial use of substances in closed systems ERC8a - Wide dispersive indoor use of processing aids in open systems ERC8b - Wide dispersive indoor use of reactive substances in open systems ERC9a - Wide dispersive indoor use of substances in closed systems ERC3 - Formulation in materials ERC5 - Industrial use resulting in inclusion into or onto a matrix ERC6c - Industrial use of monomers for manufacture of thermoplastics ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers ERC8c - Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC8d - Wide dispersive outdoor use of processing aids in open systems ERC8e - Wide dispersive outdoor use of reactive substances in open systems ERC8f - Wide dispersive outdoor use resulting in inclusion into or onto a matrix ERC9b - Wide dispersive outdoor use of substances in closed systems ERC10a - Wide dispersive outdoor use of long-life articles and materials with low release ERC10b - Wide dispersive outdoor use of long-life articles and materials with high or intended release ERC11a - Wide dispersive indoor use of long-life articles and materials with low release ERC11b - Wide dispersive indoor use of long-life articles and materials with high or intended release ERC12a - Industrial processing of articles with abrasive techniques (low release) ERC12b - Industrial processing of articles with abrasive techniques (high release) |
| <b>Process category(ies)</b>               | PROC1 - Use in closed process, no likelihood of exposure<br>PROC2 - Use in closed, continuous process with occasional controlled exposure<br>PROC3 - Use in closed batch process (synthesis or formulation)<br>PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises<br>PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact)<br>PROC7 - Industrial spraying<br>PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities<br>PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities<br>PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)<br>PROC10 - Roller application or brushing<br>PROC11 - Non industrial spraying<br>PROC13 - Treatment of articles by dipping and pouring<br><br>PROC6 - Calendaring operations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | <p>PROC12 - Use of blow agents in manufacture of foam</p> <p>PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising</p> <p>PROC15 - Use as laboratory reagent</p> <p>PROC16 - Using material as fuel sources, limited exposure to unburned product to be expected</p> <p>PROC17 - Lubrication at high energy conditions and in partly open process</p> <p>PROC18 - Greasing at high energy conditions</p> <p>PROC19 - Hand-mixing with intimate contact and only PPE available</p> <p>PROC20 - Heat and pressure transfer fluids in dispersive, professional use but closed systems</p> <p>PROC21 - Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC22 - Potentially closed processing operations with minerals/metals at elevated temperature; industrial setting</p> <p>PROC23 - Open processing and transfer operations with minerals/metals at elevated temperature</p> <p>PROC24 - High (mechanical) energy work-up of substances bound in materials and/or articles</p> <p>PROC25 - Other hot work operations with metals</p> <p>PROC26 - Handling of solid inorganic substances at ambient temperature</p> <p>PROC27a - Production of metal powders (hot processes)</p> <p>PROC27b - Production of metal powders (wet processes)</p> <p>PROC28 - Manual maintenance (cleaning and repair) of machinery</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product category(ies) | <p>PC2 - Adsorbent(s) PC14 - Metal surface treatment products, including galvanic and electroplating products PC15 - Non-metal-surface treatment products PC19 - Intermediate</p> <p>PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents</p> <p>PC21 - Laboratory chemicals PC35 - Washing and cleaning products (including solvent based products) PC36 - Water softeners PC37 - Water treatment chemicals PC40 - Extraction agents</p> <p>PC0 - Other Products PC1 - Adhesives, sealants PC3 - Air care products PC4 - Anti-freeze and de-icing products PC5 - Artists supply and hobby preparations PC6 - Automotive Care Products PC7 - Base metals and alloys PC8 - Biocidal Products (e.g. disinfectants, pest control) PC9 - Coatings and paints, fillers, putties, thinners PC9a - Coatings and paints, thinners, paint removers PC9b - Fillers, putties, plasters, modelling clay PC9c - Finger paints PC10 - Building and construction preparations not covered elsewhere PC11 - Explosives PC12 - Fertilisers PC13 - Fuels PC16 - Heat transfer fluids PC17 - Hydraulic fluids PC18 - Ink and toners PC8a - Excipient only PC22 - Lawn and Garden Preparations, including fertilisers PC23 - Leather tanning, dye, finishing, impregnation and care products PC24 - Lubricants, greases, release products PC25 - Metal working fluids PC26 - Paper and board dye, finishing and impregnation products; including bleaches and other processing aids PC27 - Plant protection products PC28 - Perfumes, fragrances PC29 - Pharmaceuticals PC30 - Photo-chemicals PC31 - Polishes and wax blends PC32 - Polymer preparations and compounds PC33 - Semiconductor(s) PC34 - Textile dyes, finishing and impregnating products; including bleaches and other processing aids PC38 - Welding and soldering products, flux products PC39 - Cosmetics, personal care products</p> |
| Sector(s) of use      | <p>SU1 - Agriculture, forestry, fishery SU2a - Mining (without offshore industries) SU2b - Offshore industries SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites SU4 - Manufacture of food products SU5 - Manufacture of textiles, leather, fur SU6a - Manufacture of wood and wood products SU6b - Manufacture of pulp, paper and paper products SU7 - Printing and reproduction of recorded media SU8 - Manufacture of bulk, large scale chemicals (including petroleum products) SU9 - Manufacture of fine chemicals SU10 - Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU11 - Manufacture of rubber products SU12 - Manufacture of plastics products, including compounding and conversion SU13 - Manufacture of other non-metallic mineral products SU14 - Manufacture of basic metals, including alloys SU15 - Manufacture of fabricated metal products, except machinery and equipment SU16 - Manufacture of computer, electronic and optical products, electrical equipment SU17 - General manufacturing SU24 - Scientific research and development SU18 - Manufacture of furniture SU19 - Building and construction work SU20 - Health services SU22 - Professional uses SU23 - Recycling</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Section 2.1 - Control of environmental exposure

**Environmental release category(ies)** - ERC1 - Manufacture of substances

- ERC2 - Formulation of preparations (mixtures)
- ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
- ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
- ERC6b - Industrial use of reactive processing aids
- ERC7 - Industrial use of substances in closed systems
- ERC8a - Wide dispersive indoor use of processing aids in open systems
- ERC8b - Wide dispersive indoor use of reactive substances in open systems
- ERC9a - Wide dispersive indoor use of substances in closed systems
- 
- ERC3 - Formulation in materials
- ERC5 - Industrial use resulting in inclusion into or onto a matrix
- ERC6c - Industrial use of monomers for manufacture of thermoplastics
- ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
- ERC8c - Wide dispersive indoor use resulting in inclusion into or onto a matrix
- ERC8d - Wide dispersive outdoor use of processing aids in open systems
- ERC8e - Wide dispersive outdoor use of reactive substances in open systems
- ERC8f - Wide dispersive outdoor use resulting in inclusion into or onto a matrix
- ERC9b - Wide dispersive outdoor use of substances in closed systems
- ERC10a - Wide dispersive outdoor use of long-life articles and materials with low release
- ERC10b - Wide dispersive outdoor use of long-life articles and materials with high or intended release
- ERC11a - Wide dispersive indoor use of long-life articles and materials with low release
- ERC11b - Wide dispersive indoor use of long-life articles and materials with high or intended release
- ERC12a - Industrial processing of articles with abrasive techniques (low release)
- ERC12b - Industrial processing of articles with abrasive techniques (high release)

**Covers concentrations up to** 100%

### Product characteristics

|                          |                                |
|--------------------------|--------------------------------|
| Physical form of product | Liquid or Solid, low dustiness |
|--------------------------|--------------------------------|

### Other operational conditions of use affecting environmental exposure

|               |            |
|---------------|------------|
| Type          | Continuous |
| Emission days | 200        |

### Risk management measures

|                                                                                       |                                                                                                                                                         |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technical onsite conditions and measures to reduce or limit discharges, air emissions | Carefully handle the substance to minimise releases Maximise waste water re-use Prevent environmental discharge consistent with regulatory requirements |
| Additional good practice advice beyond the REACH Chemical Safety Report               | Good housekeeping- e.g. inspection procedures will ensure that there are no leaks to soil<br>Clear up spills immediately and dispose of waste safely    |

### Control measures to prevent releases

|       |                                                            |
|-------|------------------------------------------------------------|
| Water | Ensure all waste water is collected and treated via a WWTP |
|-------|------------------------------------------------------------|

### Conditions and measures related to external recovery of waste

|        |                                                                                                          |
|--------|----------------------------------------------------------------------------------------------------------|
| Method | External recovery and recycling of waste should comply with applicable local and/or national regulations |
|--------|----------------------------------------------------------------------------------------------------------|

### Control of worker exposure

|                                                                                        |                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Covers concentrations up to                                                            | 100%                                                                                                                                                                                                                                                                                                                                                     |
| Physical form of product                                                               | Liquid or Solid, low dustiness                                                                                                                                                                                                                                                                                                                           |
| Use frequency                                                                          | Covers daily exposures up to 8 hours (unless stated differently).                                                                                                                                                                                                                                                                                        |
| Technical conditions and measures to control dispersion from source towards the worker | Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimize 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. there is potential for exposure: restrict access to authorized persons; provide specific activity training to operators to minimize exposures; wear suitable gloves and coveralls to prevent skin contamination; wear respiratory protection when its use is identified for certain contributing scenarios; clear up spills immediately and dispose of wastes safely. safe systems of work or equivalent arrangements are in place to manage risks. Regularly inspect, test and maintain all control measures. the need for risk based health surveillance |
| Conditions and measures related to personal protection, hygiene and health evaluation | See Section 8 for information on appropriate personal protective equipment Wear suitable gloves (tested to EN 374), coverall and eye protection                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Organisational measures to prevent /limit releases, dispersion and exposure           | Ensure operatives are trained to minimise exposures Automate activity where possible Use long handled tools where possible Other protection measures such as segregation of activity, minimisation of personnel, respiratory protection, impervious suits and face shields should also be considered for high dispersion activities which are likely to lead to substantial aerosol or vapour release, e.g. spraying                                                                                                                                                             |
| Additional good practice advice beyond the REACH Chemical Safety Report               | Assumes a good basic standard of occupational hygiene is implemented                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

### Section 3 - Exposure estimation

#### Environmental release category(ies) - ERC1 - Manufacture of substances

- ERC2 - Formulation of preparations (mixtures)
- ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
- ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
- ERC6b - Industrial use of reactive processing aids
- ERC7 - Industrial use of substances in closed systems
- ERC8a - Wide dispersive indoor use of processing aids in open systems
- ERC8b - Wide dispersive indoor use of reactive substances in open systems
- ERC9a - Wide dispersive indoor use of substances in closed systems
- 

- ERC3 - Formulation in materials
- ERC5 - Industrial use resulting in inclusion into or onto a matrix
- ERC6c - Industrial use of monomers for manufacture of thermoplastics
- ERC6d - Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
- ERC8c - Wide dispersive indoor use resulting in inclusion into or onto a matrix
- ERC8d - Wide dispersive outdoor use of processing aids in open systems
- ERC8e - Wide dispersive outdoor use of reactive substances in open systems
- ERC8f - Wide dispersive outdoor use resulting in inclusion into or onto a matrix
- ERC9b - Wide dispersive outdoor use of substances in closed systems
- ERC10a - Wide dispersive outdoor use of long-life articles and materials with low release
- ERC10b - Wide dispersive outdoor use of long-life articles and materials with high or intended release
- ERC11a - Wide dispersive indoor use of long-life articles and materials with low release
- ERC11b - Wide dispersive indoor use of long-life articles and materials with high or intended release
- ERC12a - Industrial processing of articles with abrasive techniques (low release)
- ERC12b - Industrial processing of articles with abrasive techniques (high release)

Predicted No Effect Concentration (PNEC)

Remarks

Substance will dissociate upon contact with water; the only effect is the pH effect, therefore after passing through the STP exposure is considered negligible and with no risk

Derived No Effect Level (DNEL):

Worker - inhalative, long-term - local

1 mg/m<sup>3</sup>

Calculation method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise

| indicated                                                                                                                                                                |                                           |                          |                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------|-----------------------------------|
| Process category(ies)                                                                                                                                                    | Exposure route                            | predicted exposure level | Risk characterisation ratio (RCR) |
| PROC1 - Use in closed process, no likelihood of exposure liquid                                                                                                          | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC1 - Use in closed process, no likelihood of exposure solid                                                                                                           | Worker - inhalative, long-term<br>- local | 0.01 mg/m <sup>3</sup>   | 0.01                              |
| PROC2 - Use in closed, continuous process with occasional controlled exposure liquid                                                                                     | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC2 - Use in closed, continuous process with occasional controlled exposure solid                                                                                      | Worker - inhalative, long-term<br>- local | 0.01 mg/m <sup>3</sup>   | 0.01                              |
| PROC3 - Use in closed batch process (synthesis or formulation) liquid                                                                                                    | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC3 - Use in closed batch process (synthesis or formulation) solid                                                                                                     | Worker - inhalative, long-term<br>- local | 0.1 mg/m <sup>3</sup>    | 0.1                               |
| PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises liquid                                                                          | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises solid with local exhaust ventilation                                            | Worker - inhalative, long-term<br>- local | 0.2 mg/m <sup>3</sup>    | 0.2                               |
| PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) liquid                               | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) solid with local exhaust ventilation | Worker - inhalative, long-term<br>- local | 0.2 mg/m <sup>3</sup>    | 0.2                               |
| PROC7 - Industrial spraying liquid                                                                                                                                       | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities liquid                                 | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities solid                                  | Worker - inhalative, long-term<br>- local | 0.5 mg/m <sup>3</sup>    | 0.5                               |
| PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities liquid                                     | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup>   | 0.17                              |
| PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities solid                                      | Worker - inhalative, long-term<br>- local | 0.5 mg/m <sup>3</sup>    | 0.5                               |

|                                                                                                                                                                  |                                           |                        |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------|------|
| solid                                                                                                                                                            |                                           |                        |      |
| PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)<br>liquid                                        | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)<br>solid                                         | Worker - inhalative, long-term<br>- local | 0.5 mg/m <sup>3</sup>  | 0.5  |
| PROC10 - Roller application or brushing<br>liquid                                                                                                                | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC10 - Roller application or brushing<br>solid                                                                                                                 | Worker - inhalative, long-term<br>- local | 0.5 mg/m <sup>3</sup>  | 0.5  |
| PROC11 - Non industrial spraying<br>liquid                                                                                                                       | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC11 - Non industrial spraying<br>solid with local exhaust ventilation                                                                                         | Worker - inhalative, long-term<br>- local | 0.2 mg/m <sup>3</sup>  | 0.2  |
| PROC13 - Treatment of articles by dipping and pouring<br>liquid                                                                                                  | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC13 - Treatment of articles by dipping and pouring<br>solid                                                                                                   | Worker - inhalative, long-term<br>- local | 0.5 mg/m <sup>3</sup>  | 0.5  |
| PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising<br>liquid                                                      | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising<br>solid with local exhaust ventilation                        | Worker - inhalative, long-term<br>- local | 0.2 mg/m <sup>3</sup>  | 0.2  |
| PROC15 - Use as laboratory reagent<br>liquid                                                                                                                     | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC15 - Use as laboratory reagent<br>solid                                                                                                                      | Worker - inhalative, long-term<br>- local | 0.1 mg/m <sup>3</sup>  | 0.1  |
| PROC19 - Hand-mixing with intimate contact and only PPE available<br>liquid                                                                                      | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC19 - Hand-mixing with intimate contact and only PPE available<br>solid                                                                                       | Worker - inhalative, long-term<br>- local | 0.5 mg/m <sup>3</sup>  | 0.5  |
| PROC23 - Open processing and transfer operations with minerals/metals at elevated temperature<br>liquid                                                          | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC23 - Open processing and transfer operations with minerals/metals at elevated temperature<br>solid with local exhaust ventilation and Respiratory protection | Worker - inhalative, long-term<br>- local | 0.4 mg/m <sup>3</sup>  | 0.4  |
| PROC24 - High (mechanical) energy work-up of substances bound in materials and/or articles<br>liquid                                                             | Worker - inhalative, long-term<br>- local | 0.17 mg/m <sup>3</sup> | 0.17 |
| PROC24 - High (mechanical) energy                                                                                                                                | Worker - inhalative, long-term            | 0.5 mg/m <sup>3</sup>  | 0.5  |

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|                                                                                                                             |         |  |  |
|-----------------------------------------------------------------------------------------------------------------------------|---------|--|--|
| work-up of substances bound in materials and/or articles<br>solid with local exhaust ventilation and Respiratory protection | - local |  |  |
|-----------------------------------------------------------------------------------------------------------------------------|---------|--|--|

#### Section 4 - Guidance to check compliance with the exposure scenario

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the Safety Data Sheet according to Regulation (EC) No 1907/2006 [REACH]

|                                       |                                                                                           |
|---------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Chemical name</b>                  | SODIUM HYDRIDE                                                                            |
| <b>Pure substance/mixture</b>         | Mixture                                                                                   |
| <b>REACH registration number</b>      | 01-2119457892-27-XXXX                                                                     |
| <b>Supplier</b>                       | Univar Solutions UK Ltd<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>GBR |
| <b>Non-Emergency Telephone Number</b> | +44 1274 267300 / +44 1274 267306                                                         |
| <b>E-mail address</b>                 | SDS.EMEA@univarsolutions.com                                                              |

### Section 1 - Title

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title</b>                               | Consumer use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Type</b>                                | Consumer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Main user group</b>                     | Consumer uses: Private households (= general public = consumers)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Environmental release category(ies)</b> | ERC8a - Wide dispersive indoor use of processing aids in open systems ERC8b - Wide dispersive indoor use of reactive substances in open systems ERC8d - Wide dispersive outdoor use of processing aids in open systems ERC9a - Wide dispersive indoor use of substances in closed systems ERC8c - Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC8e - Wide dispersive outdoor use of reactive substances in open systems ERC8f - Wide dispersive outdoor use resulting in inclusion into or onto a matrix ERC9b - Wide dispersive outdoor use of substances in closed systems ERC10a - Wide dispersive outdoor use of long-life articles and materials with low release ERC10b - Wide dispersive outdoor use of long-life articles and materials with high or intended release ERC11a - Wide dispersive indoor use of long-life articles and materials with low release ERC11b - Wide dispersive indoor use of long-life articles and materials with high or intended release                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Product category(ies)</b>               | PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents PC35 - Washing and cleaning products (including solvent based products) PC39 - Cosmetics, personal care products PC0 - Other Products PC1 - Adhesives, sealants PC2 - Adsorbent(s) PC3 - Air care products PC4 - Anti-freeze and de-icing products PC5 - Artists supply and hobby preparations PC6 - Automotive Care Products PC7 - Base metals and alloys PC8 - Biocidal Products (e.g. disinfectants, pest control) PC9 - Coatings and paints, fillers, putties, thinners PC9a - Coatings and paints, thinners, paint removers PC9b - Fillers, putties, plasters, modelling clay PC9c - Finger paints PC10 - Building and construction preparations not covered elsewhere PC11 - Explosives PC12 - Fertilisers PC13 - Fuels PC14 - Metal surface treatment products, including galvanic and electroplating products PC15 - Non-metal-surface treatment products PC16 - Heat transfer fluids PC17 - Hydraulic fluids PC18 - Ink and toners PC19 - Intermediate PC8a - Excipient only PC21 - Laboratory chemicals PC22 - Lawn and Garden Preparations, including fertilisers PC23 - Leather tanning, dye, finishing, impregnation and care products PC24 - Lubricants, greases, release products PC25 - Metal working fluids PC26 - Paper and board dye, finishing and impregnation products; including bleaches and other processing aids PC27 - Plant protection products PC28 - Perfumes, fragrances PC29 - Pharmaceuticals PC30 - Photo-chemicals PC31 - Polishes and wax blends PC32 - Polymer preparations and compounds PC33 - Semiconductor(s) PC34 - Textile dyes, finishing and impregnating products PC34 - Textile dyes, finishing and impregnating products; including bleaches and other processing aids PC36 - Water softeners PC37 - Water treatment chemicals PC38 - Welding and soldering products, flux products PC40 - Extraction agents |
| <b>Sector(s) of use</b>                    | SU21 - Consumer uses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Section 2 - Operational conditions and risk management measures

### Section 2.1 - Control of environmental exposure

**Environmental release category(ies)** - ERC8a - Wide dispersive indoor use of processing aids in open systems

- ERC8b - Wide dispersive indoor use of reactive substances in open systems
- ERC8d - Wide dispersive outdoor use of processing aids in open systems
- ERC9a - Wide dispersive indoor use of substances in closed systems

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- ERC8c - Wide dispersive indoor use resulting in inclusion into or onto a matrix
- ERC8e - Wide dispersive outdoor use of reactive substances in open systems
- ERC8f - Wide dispersive outdoor use resulting in inclusion into or onto a matrix
- ERC9b - Wide dispersive outdoor use of substances in closed systems
- ERC10a - Wide dispersive outdoor use of long-life articles and materials with low release
- ERC10b - Wide dispersive outdoor use of long-life articles and materials with high or intended release
- ERC11a - Wide dispersive indoor use of long-life articles and materials with low release
- ERC11b - Wide dispersive indoor use of long-life articles and materials with high or intended release

**Covers concentrations up to** 100%

**Product characteristics**

|                          |                                |
|--------------------------|--------------------------------|
| Physical form of product | Liquid or Solid, low dustiness |
|--------------------------|--------------------------------|

**Conditions and measures related to external treatment of waste for disposal**

|                         |                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------|
| Disposal                | This material and its container must be disposed of in a safe manner                         |
| Waste treatment methods | Household solid waste (e.g., product packaging) is treated at municipal waste disposal sites |

**Control of consumer exposure**

|                             |                                                                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Covers concentrations up to | 100%                                                                                                                                              |
| Physical form of product    | Liquid or Solid, low dustiness                                                                                                                    |
| Risk management measures    | Wear suitable gloves and eye/face protection Keep away from children Avoid inhalation of the product Delivery in viscous solutions is recommended |

## Section 3 - Exposure estimation

**Environmental release category(ies)** - ERC8a - Wide dispersive indoor use of processing aids in open systems

- ERC8b - Wide dispersive indoor use of reactive substances in open systems
- ERC8d - Wide dispersive outdoor use of processing aids in open systems
- ERC9a - Wide dispersive indoor use of substances in closed systems

-

- ERC8c - Wide dispersive indoor use resulting in inclusion into or onto a matrix
- ERC8e - Wide dispersive outdoor use of reactive substances in open systems
- ERC8f - Wide dispersive outdoor use resulting in inclusion into or onto a matrix
- ERC9b - Wide dispersive outdoor use of substances in closed systems
- ERC10a - Wide dispersive outdoor use of long-life articles and materials with low release
- ERC10b - Wide dispersive outdoor use of long-life articles and materials with high or intended release
- ERC11a - Wide dispersive indoor use of long-life articles and materials with low release
- ERC11b - Wide dispersive indoor use of long-life articles and materials with high or intended release

**Predicted No Effect Concentration (PNEC)**

**Remarks**

Substance will dissociate upon contact with water; the only effect is the pH effect, therefore after passing through the STP exposure is considered negligible and with no risk

Derived No Effect Level (DNEL):

Inhalation 2 mg/m<sup>3</sup>

**Calculation method** The Consexpo model has been used to estimate consumer exposures unless otherwise indicated

**Exposure route** Consumer - inhalative

| Product category(ies) | Exposure route        | predicted exposure level | Risk characterisation ratio (RCR) |
|-----------------------|-----------------------|--------------------------|-----------------------------------|
|                       | Consumer - inhalative | 1.6 mg/m <sup>3</sup>    | 1.6                               |

## Section 4 - Guidance to check compliance with the exposure scenario

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.