

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) 124722

Safety data sheet number 124722

Product Name SODIUM HYDROXIDE 45 - <50% SOLUTION

Synonyms CAUSTIC SODA 47%, CAUSTIC SODA 45%, CAUSTIC SODA 48% SOLUTION

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 7732-18-5	60 - 70%	231-791-2	-	Not Classified	-	-	-
SODIUM HYDROXIDE 1310-73-2	40 - 50%	215-185-5 (011-002-00-6)	UK-01-6126796028-6-XXXX	Met. Corr. 1 (H290) Skin Corr. 1A (H314) Eye Dam. 1 (H318)	Eye Irrit. 2 :: 0.5%<=C<2% Skin Corr. 1A :: C>=5% Skin Corr. 1B :: 2%<=C<5% Skin Irrit. 2 :: 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 >= 0.1% (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	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.
Eye contact	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.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.
Self-protection of the first aider	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

Symptoms	Burning sensation.
Eyes	Causes severe burns. Burning sensation.
Dermal	Causes severe burns. Burning sensation.
Ingestion	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

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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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
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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 1310-73-2	STEL: 2 mg/m ³

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 1310-73-2			1 mg/m ³ [5] [6]

[5] Local health effects.
[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
SODIUM HYDROXIDE 1310-73-2			1 mg/m ³ [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	
Upper flammability or explosive limits	

Remarks • Method
No information available.

No information available.
No information available.

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**

Inhalation	Contact with moist mucous membranes of the respiratory system can cause burns and lung damage.
Eye contact	Causes severe burns.
Skin contact	Causes severe burns.
Ingestion	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
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	in vitro	Negative
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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 putida	EC0	>100 mg/L	30 minutes	

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**

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 A3, A803
 ERG Code 8L

IMDG

14.1 UN number or ID number UN1824
 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
 EmS-No F-A, S-B
 14.7 Maritime transport in bulk according to IMO instruments No information available

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**TSCA**

Contact supplier for inventory compliance status

DSL/NDL

Contact supplier for inventory compliance status

EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	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
KECL	- 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
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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

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	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]

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

Section 1 - Title

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

Method	External recovery and recycling of waste should comply with applicable local and/or national
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	regulations
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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/m³

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 ³	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]

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

Section 1 - Title

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

Method	External recovery and recycling of waste should comply with applicable local and/or national
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	regulations
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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/m³

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 ³	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]

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

Section 1 - Title

Title	Industrial and Professional use
Type	Worker
Main user group	Industrial uses: Uses of substances as such or in preparations at industrial sites Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
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)
Process category(ies)	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure PROC3 - Use in closed batch process (synthesis or formulation) PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multi-stage and/or significant contact) PROC7 - Industrial spraying PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10 - Roller application or brushing PROC11 - Non industrial spraying PROC13 - Treatment of articles by dipping and pouring PROC6 - Calendaring operations

	PROC12 - Use of blow agents in manufacture of foam PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising PROC15 - Use as laboratory reagent PROC16 - Using material as fuel sources, limited exposure to unburned product to be expected PROC17 - Lubrication at high energy conditions and in partly open process PROC18 - Greasing at high energy conditions PROC19 - Hand-mixing with intimate contact and only PPE available PROC20 - Heat and pressure transfer fluids in dispersive, professional use but closed systems PROC21 - Low energy manipulation of substances bound in materials and/or articles PROC22 - Potentially closed processing operations with minerals/metals at elevated temperature; industrial setting PROC23 - Open processing and transfer operations with minerals/metals at elevated temperature PROC24 - High (mechanical) energy work-up of substances bound in materials and/or articles PROC25 - Other hot work operations with metals PROC26 - Handling of solid inorganic substances at ambient temperature PROC27a - Production of metal powders (hot processes) PROC27b - Production of metal powders (wet processes) PROC28 - Manual maintenance (cleaning and repair) of machinery
Product category(ies)	PC2 - Adsorbent(s) PC14 - Metal surface treatment products, including galvanic and electroplating products PC15 - Non-metal-surface treatment products PC19 - Intermediate PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents PC21 - Laboratory chemicals PC35 - Washing and cleaning products (including solvent based products) PC36 - Water softeners PC37 - Water treatment chemicals PC40 - Extraction agents 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
Sector(s) of use	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

Section 2 - Operational conditions and risk management measures

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
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- 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
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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 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
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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
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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)
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- 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
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- 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/m³

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 - local	0.17 mg/m ³	0.17
PROC1 - Use in closed process, no likelihood of exposure solid	Worker - inhalative, long-term - local	0.01 mg/m ³	0.01
PROC2 - Use in closed, continuous process with occasional controlled exposure liquid	Worker - inhalative, long-term - local	0.17 mg/m ³	0.17
PROC2 - Use in closed, continuous process with occasional controlled exposure solid	Worker - inhalative, long-term - local	0.01 mg/m ³	0.01
PROC3 - Use in closed batch process (synthesis or formulation) liquid	Worker - inhalative, long-term - local	0.17 mg/m ³	0.17
PROC3 - Use in closed batch process (synthesis or formulation) solid	Worker - inhalative, long-term - local	0.1 mg/m ³	0.1
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises liquid	Worker - inhalative, long-term - local	0.17 mg/m ³	0.17
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises solid with local exhaust ventilation	Worker - inhalative, long-term - local	0.2 mg/m ³	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 - local	0.17 mg/m ³	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 - local	0.2 mg/m ³	0.2
PROC7 - Industrial spraying liquid	Worker - inhalative, long-term - local	0.17 mg/m ³	0.17
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities liquid	Worker - inhalative, long-term - local	0.17 mg/m ³	0.17
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities solid	Worker - inhalative, long-term - local	0.5 mg/m ³	0.5
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities liquid	Worker - inhalative, long-term - local	0.17 mg/m ³	0.17
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities solid	Worker - inhalative, long-term - local	0.5 mg/m ³	0.5

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

work-up of substances bound in materials and/or articles solid with local exhaust ventilation and Respiratory protection	- local		
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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]

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

Section 1 - Title

Title	Consumer use
Type	Consumer
Main user group	Consumer uses: Private households (= general public = consumers)
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
Product category(ies)	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
Sector(s) of use	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
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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

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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

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/m³

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 ³	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.