SAFETY DATA SHEET

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

Supersedes date 26-Nov-2026 **Revision Number** 5

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

1.1. Product identifier

Product Code(s)	S129-5.0, S129-25
Safety data sheet number	1256
Product Name	SODIUM HYDROXIDE SOLUTION
EC No (EU Index No)	215-185-5 (011-002-00-6)
CAS No	1310-73-2
Synonyms	SODIUM HYDROXIDE SOLUTION 20%, CAUSTIC SODA SOLUTION, CAUSTIC SODA LIQUOR, LIQUID CAUSTIC SODA
Pure substance/mixture	Mixture

Contains SODIUM HYDROXIDE

Molecular weight	40 (sodium hydroxide)

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

Recommended use	Chemical intermediate Detergent Soaps

1.3. Details of the supplier of the safety data sheet

Supplier
Palatine Paints & Chemicals Ltd
55 Smallbrook Lane
Leigh, Lancashire
WN7 5PZ
UK

For further information, please contact

E-mail address	sales@palatinepaints.co.uk
Non-Emergency Telephone Number	+44 1942 884122 08.00 - 17.00 Hrs Mon - Fri (not 24hr)

1.4. Emergency telephone number

Emergency Telephone	0344 892 0111

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 mist/vapours/spray
P280 - Wear protective gloves/protective clothing and eye/face protection
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
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
P501 - Dispose of contents/container in accordance with local/national regulations

Additional information
This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

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)
SODIUM HYDROXIDE 1310-73-2	≤ 20%	215-185-5 (011-002-00-6)	-	Skin Corr. 1A (H314) Met. Corr. 1 (H290) 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. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention. General first aid, rest, warmth and fresh air.

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. Drink plenty of water. Place unconscious person on the side in the recovery position and ensure breathing can take place.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

Symptoms Burning sensation.

Inhalation Mist may irritate respiratory tracts. Coughing and/ or wheezing. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Burning sensation.

Eyes Burning sensation. Causes serious eye damage. Irritating. May cause redness and tearing of the eyes. Risk of corneal damage. May cause permanent damage if eye is not immediately irrigated.

Dermal Burning sensation. Causes severe burns.

Ingestion Causes severe burns Irritating. May cause nausea, stomach pain and vomiting.

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

Note to doctors Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

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.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it without risk. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Do not allow runoff to sewer, waterway or ground. Wear positive pressure self-contained breathing apparatus (SCBA).

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. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing mist/vapour.
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. Do not allow runoff to sewer, waterway or ground. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for containment	Keep out of drains, sewers, ditches and waterways. Contain spillage with sand, earth or other inert absorbent material.
Methods for cleaning up	Absorb with inert material and collect in labelled containers. Dispose of according to local regulations. Residues may be neutralised with dilute acid.
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	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Avoid generation of mists. On further dilution, always add the product to water. Never add water to the product.
General hygiene considerations	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid

contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Protect from frost. Product absorbs carbon dioxide from the air. Store locked up. Keep out of the reach of children. Store away from other materials. Store in corrosion-resistant container with a resistant inner liner. Store in polyethylene or polyethylene-lined steel drums. Do not use aluminium, zinc or galvanised containers. See section 10 for more information.

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/m³

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		2 mg/kg/day [5] [7]	1 mg/m³ [5] [6] 2 mg/m³ [5] [7]

[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/m³ [5] [6]

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

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location. Avoid generation of mists. Respiratory protection must be used if contamination exceeds acceptable level.

Personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield. Use eye protection according to EN 166.

Hand protection Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Polyvinyl chloride (PVC)		>8 hours
Long term (repeated)	Neoprene gloves		>8 hours
Long term (repeated)	Rubber (natural, latex)		>8 hours
Long term (repeated)	Butyl rubber		>8 hours

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. Where mists may be generated, use a combined filter, type ABEK-P2.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

Property	**Values**	**Remarks • Method**
Melting point / freezing point	approx. -26 °C	Freezing point
Initial boiling point and boiling range	approx. 108 - 110 °C	
Flammability		No information available.
Flammability Limit in Air		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	As supplied (20% solution).
pH (as aqueous solution)		No information available.
Kinematic viscosity		approx. 3.5 - 4 mm²/s @ 20°C
Dynamic viscosity		approx. 4 - 5 mPa·s @ 20°C
Water solubility	Miscible with water	No information available.
Solubility(ies)	Alcohols	No information available.
Partition coefficient		No information available.
Vapour pressure	approx. 17 hPa @ 20°C	No information available.
Relative density	approx. 1.22 @ 20°C	No information available.
Bulk density	Not applicable (liquid)	No information available
Liquid Density	approx. 1220 kg/m³ @ 20°C	No information available
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	Not applicable (liquid)	

Particle Size Distribution	Not applicable (liquid)
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising

9.2. Other information

Molecular weight	40 (sodium hydroxide)

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product:. Acids. Organic nitrites. Light metals.

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 Violent reaction with:. Strong acids. Exothermic reaction with acids. Reacts with aluminium, zinc and other light metals, releasing flammable hydrogen gas. Heat is generated on further dilution - always add the product to water.

10.4. Conditions to avoid

Conditions to avoid Exposure to air over prolonged periods (absorbs carbon dioxide). Freezing. Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Acids. Bases. Strong acids. Strong oxidising agents. Aluminium. Magnesium. Zinc. Metals (releases flammable hydrogen gas).

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition can lead to release of irritating and toxic gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.

Ingestion Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

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

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
SODIUM HYDROXIDE	> 2000 mg/kg (Rat)	-	-

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

Skin corrosion/irritation Classification based on data available for ingredients. Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye damage. Causes burns.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

SODIUM HYDROXIDE (1310-73-2)

Method	Species	Endpoint type	Effective dose	Exposure time	Results

	Fish	LC50	33-189 mg/L	96 hours	
	Oncorhynchus mykiss (rainbow trout)	LC50	45.5 mg/L	96 hours	
	Gambusia affinis	LC50	125 mg/L	96 hours	
	Daphnia magna	EC50	40-240 mg/L	48 hours	

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

Bioaccumulation The product does not contain any substances expected to be bioaccumulating.

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 Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

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 None
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 does not contain substances subject to authorisation (UK REACH - Annex XIV).
This product does not contain substances subject to restriction (UK REACH - Annex XVII).

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/NDSL	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

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	J.H.
Supersedes date	09-Jul-2018

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 HYDROXIDE
REACH registration number	01-2119457892-27-XXXX 1310-73-2
CAS No	215-185-5
EC No (EU Index No)	Palatine Paints & Chemicals Ltd,
Supplier	55 Smallbrook Lane, Leigh, Lancashire WN7 5PZ, UK
	+44 1942 884122 (not 24hr)
Non-Emergency Telephone Number	sales@palatinepaints.co.uk
E-mail address	

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

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

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/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/m³	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]

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EC No (EU Index No)	215-185-5
Supplier	Palatine Paints & Chemicals Ltd, 55 Smallbrook Lane, Leigh, Lancashire WN7 5PZ, UK
Non-Emergency Telephone Number	+44 1942 884122 (not 24hr)
E-mail address	sales@palatinepaints.co.uk

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

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

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)
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- 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

ES00080 - **SODIUM HYDROXIDE - Industrial and Professional Use of caustic soda**

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/m³	0.17
PROC1 - Use in closed process, no likelihood of exposure solid	Worker - inhalative, long-term - local	0.01 mg/m³	0.01
PROC2 - Use in closed, continuous process with occasional controlled exposure liquid	Worker - inhalative, long-term - local	0.17 mg/m³	0.17
PROC2 - Use in closed, continuous process with occasional controlled exposure solid	Worker - inhalative, long-term - local	0.01 mg/m³	0.01
PROC3 - Use in closed batch process (synthesis or formulation) liquid	Worker - inhalative, long-term - local	0.17 mg/m³	0.17
PROC3 - Use in closed batch process (synthesis or formulation) solid	Worker - inhalative, long-term - local	0.1 mg/m³	0.1
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises liquid	Worker - inhalative, long-term - local	0.17 mg/m³	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/m³	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/m³	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/m³	0.2
PROC7 - Industrial spraying liquid	Worker - inhalative, long-term - local	0.17 mg/m³	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/m³	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/m³	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/m³	0.17
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at	Worker - inhalative, long-term - local	0.5 mg/m³	0.5

dedicated facilities solid			
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) liquid	Worker - inhalative, long-term - local	0.17 mg/m³	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/m³	0.5
PROC10 - Roller application or brushing liquid	Worker - inhalative, long-term - local	0.17 mg/m³	0.17
PROC10 - Roller application or brushing solid	Worker - inhalative, long-term - local	0.5 mg/m³	0.5
PROC11 - Non industrial spraying liquid	Worker - inhalative, long-term - local	0.17 mg/m³	0.17
PROC11 - Non industrial spraying solid with local exhaust ventilation	Worker - inhalative, long-term - local	0.2 mg/m³	0.2
PROC13 - Treatment of articles by dipping and pouring liquid	Worker - inhalative, long-term - local	0.17 mg/m³	0.17
PROC13 - Treatment of articles by dipping and pouring solid	Worker - inhalative, long-term - local	0.5 mg/m³	0.5
PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettising liquid	Worker - inhalative, long-term - local	0.17 mg/m³	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/m³	0.2
PROC15 - Use as laboratory reagent liquid	Worker - inhalative, long-term - local	0.17 mg/m³	0.17
PROC15 - Use as laboratory reagent solid	Worker - inhalative, long-term - local	0.1 mg/m³	0.1
PROC19 - Hand-mixing with intimate contact and only PPE available liquid	Worker - inhalative, long-term - local	0.17 mg/m³	0.17
PROC19 - Hand-mixing with intimate contact and only PPE available solid	Worker - inhalative, long-term - local	0.5 mg/m³	0.5
PROC23 - Open processing and transfer operations with minerals/metals at elevated temperature liquid	Worker - inhalative, long-term - local	0.17 mg/m³	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/m³	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/m³	0.17

PROC24 - High (mechanical) energy work-up of substances bound in materials and/or articles solid with local exhaust ventilation and Respiratory protection	Worker - inhalative, long-term - local	0.5 mg/m³	0.5

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 HYDROXIDE
REACH registration number	01-2119457892-27-XXXX
CAS No	1310-73-2
EC No (EU Index No)	215-185-5
Supplier	Palatine Paints & Chemicals Ltd, 55 Smallbrook Lane, Leigh, Lancashire WN7 5PZ, UK
Non-Emergency Telephone Number	+44 1942 884122 (not 24hr)
E-mail address	sales@palatinepaints.co.uk

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; 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

ES00081 - **SODIUM HYDROXIDE - Consumer use of caustic soda**

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

ES00081 - **SODIUM HYDROXIDE - Consumer use of caustic soda**

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/m³	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.