Safety Data Sheet
according to WHS Regulations

Printing date 10.01.2024 *Version number 9.0* *Revision: 10.01.2024*

1 Identification

· ***Product identifier***

· ***Trade name:*** Sodium hydroxide, pellets, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur

· ***Article number:*** SO0425
· ***CAS Number:***
1310-73-2
· ***EC number:***
215-185-5
· ***Index number:***
011-002-00-6
· ***Relevant identified uses of the substance or mixture and uses advised against***
· ***Process category***
PROC5 Mixing or blending in batch processes
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC15 Use as laboratory reagent
· ***Application of the substance / the preparation:*** Laboratory reagent

· ***Details of the supplier of the safety data sheet***
· ***Manufacturer/Supplier:***
Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa
08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com
· ***Regional representation:***
ChemSupply Australia Pty Ltd
38-50 Bedford Street
Gillman SA 5013 AUSTRALIA
Tel: (08) 8440 2000
Email: sales@chemsupply.com.au
Web: www.chemsupply.com.au

· ***Further information obtainable from:*** Technical Department
· ***Emergency telephone number:***
EMERGENCY CONTACT NUMBER: +61 08 8440 2000
Business hours: 8:30am to 5:00pm, Monday to Friday.

2 Hazard(s) Identification

· ***Classification of the substance or mixture***


corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

· ***Label elements***
· ***GHS label elements***
The substance is classified and labelled according to the Globally Harmonised System (GHS).
· ***Hazard pictograms***


GHS05

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· ***Signal word*** Danger
· ***Hazard statements***
Causes severe skin burns and eye damage.
· ***Precautionary statements***
Do not breathe dusts or mists.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· ***Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.

3 Composition and Information on Ingredients

· ***Chemical characterisation: Substances***
· ***CAS No. Description***
1310-73-2 sodium hydroxide
· ***Identification number(s)***
· ***EC number:*** 215-185-5
· ***Index number:*** 011-002-00-6

4 First Aid Measures

· ***General information:***
Take affected persons out of danger area and lay down.
Involve doctor immediately.
· ***After inhalation:***
Take affected persons into fresh air and keep quiet.
In case of unconsciousness place patient stably in side position for transportation.
· ***After skin contact:***
Immediately remove all contaminated clothing.
Immediately wash with water and soap and rinse thoroughly.
Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.
· ***After eye contact:***
Contact with the eyes causes painful burns that can lead to permanent visual defects or blindness.
Rinse opened eye for several minutes under running water. Then consult a doctor.
If the casualty wears contact lenses, they should be removed as long as they are not stuck to the eyes, otherwise additional damage may occur.
· ***After swallowing:***
Rinse out mouth and then drink plenty of water.
Never give anything by mouth to an unconscious person.
Do not induce vomiting; call for medical help immediately.
· ***Information for doctor:***
· ***Most important symptoms and effects, both acute and delayed***
The main symptoms are described for the different cases of contact: skin, eyes, inhalation and ingestion.

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· ***Indication of any immediate medical attention and special treatment needed***
Treat symptomatically.

5 Fire Fighting Measures

· ***Suitable extinguishing agents:***
Use extinguishing measures that are appropriate to the circumstances of the premises and surroundings.
· ***Special hazards arising from the substance or mixture***
Formation of toxic gases is possible during heating or in case of fire.
Vapours may create explosive mixtures with air.
· ***Protective equipment:***
Respiratory protection and full chemical protective clothing must be provided for extinguishing work.
Cool exposed containers by water spray or water mist.
· ***Hazchem code:*** 2W
· ***Additional information***
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental Release Measures

· ***Personal precautions, protective equipment and emergency procedures***
Avoid formation of dust.
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
· ***Environmental precautions:*** Do not allow to enter sewers/ surface or ground water.
· ***Methods and material for containment and cleaning up:***
Sweep up the spilled substance and place it in a container.
Use neutralising agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
· ***Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

· ***Handling:***
· ***Precautions for safe handling***
Keep away from heat and other sources of ignition.
Avoid breathing mist / vapours / aerosol.
Provide suction extractors if dust is formed.
Thorough dedusting.
Do not eat, drink or smoke during use.
Wash hands after handling.
· ***Information about fire - and explosion protection:***
Use explosion-proof apparatus / fittings and spark-proof tools.
Dust can combine with air to form an explosive mixture.
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Store in a cool, dry and well-ventilated place.
Store only in unopened original receptacles.

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Trade name: Sodium hydroxide, pellets, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur

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Use only receptacles specifically permitted for this substance/product.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:***
Keep container tightly sealed.
See product label for storage temperature.
· ***Specific end use(s)*** No further relevant information available.

8 Exposure controls and personal protection

· ***Additional information about design of technical facilities:*** No further data; see section 7.
· ***Ingredients with limit values that require monitoring at the workplace:***

1310-73-2 sodium hydroxide
WES Peak limitation: 2 mg/m³
· ***DNELs***
DNEL consumer, prolonged. Local effects: Inhalative - 1 mg/m3
DNEL worker, cronic. Local effects: Inhalative - 1 mg/m3
· ***Additional information:*** The lists valid during the making were used as basis.
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· ***Respiratory protection:*** Not required.
· ***Protection of hands:***


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· ***Material of gloves***
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· ***Penetration time of glove material***
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· ***Eye protection:***


Tightly sealed goggles

9 Physical and Chemical Properties

· ***General Information***
· ***Appearance:***
· ***Form:*** Pellets
· ***Colour:*** White

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· ***Odour:***	Odourless
· ***Odour threshold:***	Not determined.
· ***pH-value:***	>14
· ***Change in condition***	
· ***Melting point/freezing point:***	315 °C
· ***Initial boiling point and boiling range:***	410 °C
· ***Flash point:***	Not applicable.
· ***Flammability (solid, gas):***	Product is not flammable.
· ***Decomposition temperature:***	Not determined.
· ***Ignition temperature:***	Not determined.
· ***Explosive properties:***	Product does not present an explosion hazard.
· ***Explosion limits:***	
· ***Lower:***	Not determined.
· ***Upper:***	Not determined.
· ***Vapour pressure at 20 °C:***	10 hPa
· ***Density at 20 °C:***	1.99 g/cm³
· ***Relative density***	Not determined.
· ***Vapour density***	Not applicable.
· ***Evaporation rate***	Not applicable.
· ***Solubility in / Miscibility with***	
· ***water at 20 °C:***	420 g/l
· ***Partition coefficient: n-octanol/water:***	Not determined.
· ***Viscosity:***	
· ***Dynamic:***	Not applicable.
· ***Kinematic:***	Not applicable.
· ***Other information***	No further relevant information available.

10 Stability and Reactivity

· ***Reactivity*** Stable under normal conditions. No decomposition if used according to regulations.
· ***Thermal decomposition / conditions to be avoided:***
No decomposition if used and stored according to specifications.
· ***Possibility of hazardous reactions***
Reacts with strong acids.
Strong exothermic reaction with acids.
· ***Conditions to avoid***
Heat
Exposure to light.
Exposure to moisture.
· ***Incompatible materials:***
Strong acids
Organic materials
Miscellaneous metals
· ***Hazardous decomposition products:***
In case of fire: see section 5.
Hazardous decomposition products formed under fire conditions: - Sodium oxides.

11 Toxicological Information

· ***Information on toxicological effects***
· ***Acute toxicity*** Based on available data, the classification criteria are not met.
· ***Skin corrosion/irritation***
Fur - Rabbit
Result: Irritating to the skin - 24 h

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Causes severe skin burns and eye damage.
· ***Serious eye damage/irritation***
Eyes - Rabbit
Result: Irritating to eyes
Based on available data, the classification criteria are not met.
· ***Respiratory or skin sensitisation***
Test Patch: - Human
Result: negative
Based on available data, the classification criteria are not met.
· ***Germ cell mutagenicity*** Based on available data, the classification criteria are not met.
· ***Carcinogenicity***
IARC: No component of this product is identified as a probable, possible or confirmed human carcinogen at levels greater than or equal to 0.1% by the International Agency for Research on Carcinogens (IARC).
Based on available data, the classification criteria are not met.
· ***Reproductive toxicity*** Based on available data, the classification criteria are not met.
· ***STOT-single exposure***
Acute oral toxicity - If swallowed, severe burns to mouth and neck, plus danger of perforation of oesophagus and stomach.
Acute inhalation toxicity: mucous membrane burns, coughing, shortness of breath and possible respiratory tract damage.
Based on available data, the classification criteria are not met.
· ***STOT-repeated exposure*** Based on available data, the classification criteria are not met.
· ***Aspiration hazard*** Based on available data, the classification criteria are not met.

12 Ecological Information

· ***Toxicity***
· ***Aquatic toxicity:***
Toxicity to fish
LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates
EC50 static test - Ceriodaphnia (Water flea) - 40.4 mg/L - 48 h
Toxicity to bacteria
CE50 - Photobacterium phosphoreum - 22 mg/L - 15 min
· ***Persistence and degradability***
Methods for the determination of biological degradability are not applicable for inorganic substances.
· ***Behaviour in environmental systems:***
· ***Bioaccumulative potential*** Non significant accumulation in organisms
· ***Mobility in soil*** No further relevant information available.
· ***Additional ecological information:***
· ***General notes:***
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
· ***Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.

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· ***Other adverse effects***
Additional ecological information
Danger to drinking water supplies.
Discharge into the environment must be avoided.
Toxic to aquatic life with long lasting effects.
Dangerous effect due to pH change.

13 Disposal considerations

· ***Waste treatment methods***
· ***Recommendation***
Must be specially treated adhering to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
It is recommended to manage solid waste separately using its original packaging, avoiding mixing substances of different types and origin.
The waste code indicated in this document is indicative according to the properties of each substance, but does not always apply.
It is recommended to consult the local/national waste manager for more details on the waste and waste management regulations, which differ according to the legislation of each country.

· ***Uncleaned packaging:***
· ***Recommendation:***
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
· ***Recommended cleansing agents:*** Water, if necessary together with cleansing agents.

14 Transport information

· ***UN-Number***	
· ***ADG, IMDG, IATA***	UN1823
· ***UN proper shipping name***	
· ***ADG***	1823 SODIUM HYDROXIDE, SOLID
· ***IMDG, IATA***	SODIUM HYDROXIDE, SOLID
· ***Transport hazard class(es)***	

· ***ADG, IMDG, IATA***

· ***Class***	8 Corrosive substances.
· ***Label***	8
· ***Packing group***	
· ***ADG, IMDG, IATA***	II
· ***Environmental hazards:***	
· ***Marine pollutant:***	No
· ***Special precautions for user***	Warning: Corrosive substances.
· ***Hazard identification number (Kemler code):***	80
· ***EMS Number:***	F-A,S-B
· ***Segregation groups***	(SGG18) Alkalis
· ***Stowage Category***	A
· ***Segregation Code***	SG35 Stow "separated from" SGG1-acids

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· ***Transport in bulk according to Annex II of Marpol and the IBC Code*** Not applicable.

· ***Transport/Additional information:***

· ***ADG***
· ***Limited quantities (LQ)*** 1 kg
· ***Transport category*** 2
· ***Tunnel restriction code*** E
· ***UN "Model Regulation":*** UN 1823 SODIUM HYDROXIDE, SOLID, 8, II
· ***Hazchem code:*** 2W

15 Regulatory information

· ***Safety, health and environmental regulations/legislation specific for the substance or mixture***
· ***Australian Inventory of Industrial Chemicals*** Substance is listed.
· ***Standard for the Uniform Scheduling of Medicines and Poisons*** : S5, S6, S10
· ***Australia: Priority Existing Chemicals*** Substance is not listed.
· ***GHS label elements***
The substance is classified and labelled according to the Globally Harmonised System (GHS).
· ***Hazard pictograms***

GHS05

· ***Signal word*** Danger
· ***Hazard statements***
Causes severe skin burns and eye damage.
· ***Precautionary statements***
Do not breathe dusts or mists.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***Directive 2012/18/EU***
· ***Named dangerous substances - ANNEX I*** -
· ***Chemical safety assessment:*** A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Department issuing SDS:*** Product Safety Department
· ***Contact:*** msds@scharlab.com
· ***Abbreviations and acronyms:***
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADG: Australian Code for the Transport of Dangerous Goods by Road & Rail.
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Corr. 1A: Skin corrosion/irritation – Category 1A

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Annex: Exposure scenario 1

· ***1 - Short title of the exposure scenario***
Exposure scenario: Sodium hydroxide
Industrial use
· ***Sector of Use***
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
· ***Product category*** PC21 Laboratory chemicals
· ***Process category*** PROC15 Use as laboratory reagent
· ***Environmental release category***
ERC2 Formulation into mixture
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
· ***Description of the activities / processes covered in the Exposure Scenario***
See section 1 of the annex to the Safety Data Sheet.
· ***2 - Conditions of use***
· ***Duration and frequency***
5 workdays/week.
Days of issuance (days/year): 200
· ***Physical parameters***
· ***Physical state*** Solid
· ***Concentration of the substance in the mixture***
Raw material.
Covers a percentage of substance in the product up to 100 %.
· ***Other operational conditions***
· ***Other operational conditions affecting environmental exposure*** No special measures required.
· ***Other operational conditions affecting worker exposure***
Avoid contact with eyes.
Avoid contact with the skin.
· ***Risk management measures***
The objective is to prevent the passage of NaOH solutions into municipal wastewater or surface water. If such discharges are expected to cause significant pH changes, regular pH monitoring is required during introduction to open water. In general, discharges shall be made in such a way as to minimise pH variations at the surface of the receiving waters.

Most aquatic organisms can tolerate pH values of 6 to 9. This is also reflected in the description of standard OECD tests with aquatic organisms.
· ***Worker protection***
· ***Organisational protective measures***
Provide Internal Plant Instruction.
Handling procedures must be well documented.
Ensure that activities are executed by specialists or authorised personnel only.
Workers in the identified processes/risk areas must be trained to:
a) Avoid working without respiratory protection
(b) Understand the corrosive properties of the substance being worked with
(c) Observe the safest procedures, as specified by the employer
The employer must also check that the required personal protective equipment is available and used as instructed.
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.
· ***Technical protective measures***
Ensure that suitable extractors are available on processing machines
Replace, if possible, manual processes with automatic and/or closed processes. This would avoid irritating mists, sprays and splashes.
Store in cool, dry place in tightly closed receptacles.
Only handle and refill product in closed systems.

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The work process has to be performed under closed conditions.
Put lid on container immediately after use.
Use closeable conveyance devices.
The use of tongs, claws with long handles for manual use to avoid direct contact and splash exposure.
Ensure good ventilation/exhaustion at the workplace.

· ***Personal protective measures***
Do not inhale dust / smoke / mist.
Avoid contact with the skin.
Avoid contact with the eyes.
Tightly sealed goggles
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Recommended material for gloves:

- Butyl rubber, PVC, polychloroprene with natural latex lining, material thickness: 0.5mm, breakthrough time: >480min.

- Nitrile rubber, fluoro-rubber, material thickness: 0.35-0.4mm, breakthrough time: >480min.

Respiratory protection: In case of dust or aerosol formation (e.g. when spraying) wear respiratory protection with approved filter (P2).
Use protective suit.
Apron
Rubber or plastic boots.

· ***Measures for consumer protection*** Ensure adequate labelling.

· ***Environmental protection measures***
The environmental risk assessment is only applicable for the aquatic environment, where applicable, including waste water treatment plants (WWTP)/waste water treatment plants (WWTP), as NaOH emissions in the different life cycle stages (production and use) apply mainly to water (waste).

· ***Air***
No special measures required.
No significant emissions to air are expected due to the very low vapour pressure of NaOH.

· ***Water***
Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.
The aquatic risk and effect assessment will only deal with the effect on ecosystems/organisms due to possible pH changes related to OH- discharges, as the toxicity of Na+ ions is expected to be negligible compared to the (potential) pH effect.

Only local scale will be treated, including STP or WWTP, where appropriate, both for production and industrial use. Any effects that may arise would be expected to take place on a local scale.
The high solubility in water and the very low vapour pressure indicate that NaOH is predominantly found in water. The exposure assessment for the aquatic environment will only address possible pH changes in PTS effluent and surface water related to locally released OH-.

· ***Soil***
No special measures required.
No significant emissions to the terrestrial environment are expected.
The sludge application route is not relevant for the emission to agricultural soil, as there will be no sorption of NaOH to particles in STP/EDAR.

· ***Disposal measures***
Disposal must be made according to official regulations.

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Ensure that waste is collected and contained.
· ***Waste type***
Liquid product residues
Aqueous solution
Partially emptied and uncleaned packaging
· ***3 - Exposure estimation***
· ***Worker (oral)*** No significant oral exposure
· ***Worker (dermal)*** No significant dermal exposure
· ***Worker (inhalation)***
PROC 15: < 1 (mg/m3)
RCR: <1
· ***4 - Guidance for downstream users***
Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.
Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.
For the risk assessment, the tools recommended by ECHA can be used.

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Annex: Exposure scenario 2

· ***1 - Short title of the exposure scenario*** Laboratory use
· ***Sector of Use***
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
· ***Product category*** PC21 Laboratory chemicals
· ***Process category*** PROC15 Use as laboratory reagent
· ***Environmental release category***
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC9b Widespread use of functional fluid (outdoor)
· ***Description of the activities / processes covered in the Exposure Scenario***
See section 1 of the annex to the Safety Data Sheet.
· ***2 - Conditions of use***
· ***Duration and frequency***
5 workdays/week.
Days of issuance (days/year): 200
· ***Physical parameters***
· ***Physical state*** Solid
· ***Concentration of the substance in the mixture***
Raw material.
Covers a percentage of substance in the product up to 100 %.
· ***Other operational conditions***
· ***Other operational conditions affecting environmental exposure*** No special measures required.
· ***Other operational conditions affecting worker exposure***
Avoid contact with eyes.
Avoid contact with the skin.
· ***Risk management measures***
The objective is to prevent the passage of NaOH solutions into municipal wastewater or surface water. If such discharges are expected to cause significant pH changes, regular pH monitoring is required during introduction to open water. In general, discharges shall be made in such a way as to minimise pH variations at the surface of the receiving waters.

Most aquatic organisms can tolerate pH values of 6 to 9. This is also reflected in the description of standard OECD tests with aquatic organisms.
· ***Worker protection***
· ***Organisational protective measures***
Provide Internal Plant Instruction.
Handling procedures must be well documented.
Ensure that activities are executed by specialists or authorised personnel only.
Workers in the identified processes/risk areas must be trained to:
a) Avoid working without respiratory protection
(b) Understand the corrosive properties of the substance being worked with
(c) Observe the safest procedures, as specified by the employer
The employer must also check that the required personal protective equipment is available and used as instructed.
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.
· ***Technical protective measures***
Ensure that suitable extractors are available on processing machines
Replace, if possible, manual processes with automatic and/or closed processes. This would avoid irritating mists, sprays and splashes.
Store in cool, dry place in tightly closed receptacles.
Only handle and refill product in closed systems.
The work process has to be performed under closed conditions.

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according to WHS Regulations

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Trade name: Sodium hydroxide, pellets, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur

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Put lid on container immediately after use.
Use closeable conveyance devices.
The use of tongs, claws with long handles for manual use to avoid direct contact and splash exposure.
Ensure good ventilation/exhaustion at the workplace.

· ***Personal protective measures***
Do not inhale dust / smoke / mist.
Avoid contact with the skin.
Avoid contact with the eyes.
Tightly sealed goggles
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Recommended material for gloves:

- Butyl rubber, PVC, polychloroprene with natural latex lining, material thickness: 0.5mm, breakthrough time: >480min.

- Nitrile rubber, fluoro-rubber, material thickness: 0.35-0.4mm, breakthrough time: >480min.

Respiratory protection: In case of dust or aerosol formation (e.g. when spraying) wear respiratory protection with approved filter (P2).
Use protective suit.
Apron
Rubber or plastic boots.

· ***Measures for consumer protection*** Ensure adequate labelling.

· ***Environmental protection measures***
The environmental risk assessment is only applicable for the aquatic environment, where applicable, including waste water treatment plants (WWTP)/waste water treatment plants (WWTP), as NaOH emissions in the different life cycle stages (production and use) apply mainly to water (waste).

· ***Air***
No special measures required.
No significant emissions to air are expected due to the very low vapour pressure of NaOH.

· ***Water***
Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.
The aquatic risk and effect assessment will only deal with the effect on ecosystems/organisms due to possible pH changes related to OH- discharges, as the toxicity of Na+ ions is expected to be negligible compared to the (potential) pH effect.

Only local scale will be treated, including STP or WWTP, where appropriate, both for production and industrial use. Any effects that may arise would be expected to take place on a local scale.
The high solubility in water and the very low vapour pressure indicate that NaOH is predominantly found in water. The exposure assessment for the aquatic environment will only address possible pH changes in PTS effluent and surface water related to locally released OH-.

· ***Soil***
No special measures required.
No significant emissions to the terrestrial environment are expected.
The sludge application route is not relevant for the emission to agricultural soil, as there will be no sorption of NaOH to particles in STP/EDAR.

· ***Disposal measures***
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.

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Safety Data Sheet
according to WHS Regulations

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· ***Waste type***
Liquid product residues
Aqueous solution
Partially emptied and uncleaned packaging
· ***3 - Exposure estimation***
· ***Worker (oral)*** No significant oral exposure
· ***Worker (dermal)*** No significant dermal exposure
· ***Worker (inhalation)***
PROC 15: < 1 (mg/m3)
RCR: <1
· ***4 - Guidance for downstream users***
Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.
Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.
For the risk assessment, the tools recommended by ECHA can be used.