



Safety Data Sheet

Date of Issue: 26.11.2024

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1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : ECP Limited
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Product Name	Sodium Hydroxide 10% Solution
Product Code	47588
CAS No.	1310-73-2

Recommended use : Laboratory Investigations

2: Hazard's identification

2.1 GHS Classification

Corrosive to Metals (Category 1), H290
Skin corrosion/irritation (Category 1B), H314
Serious eye damage/eye irritation (Category 1), H318
Acute toxicity, Oral (Category 4), H302

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word : **Danger**

Hazard statement(s)

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed

Precautionary statement(s)

Prevention

P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

- 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/ physician.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P363 Wash contaminated clothing before reuse.
- P390 Absorb spillage to prevent material damage.

Storage

- P405 Store locked up.
- P406 Store in corrosive resistant container with a resistant inner liner.

Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

Component	Classification	Concentration
Sodium Hydroxide		
CAS-No. 1310-73-2 EC-No. 215-185-5 Index-No. 011-002-00-6		>= 9 - < 11 %

4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.
Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Sodium oxides

Not combustible.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders:

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Observe label precautions.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

No aluminium, tin, or zinc containers.

Tightly closed.No metal containers.

Recommended storage temperature see product label.

Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No.	Value	Control parameters	Basis
Sodium Hydroxide	1310-73-2	WES-Ceiling	2 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state	:	liquid
b) Color	:	colorless
c) Odor	:	odorless
d) Melting point/freezing point	:	No data available
e) Initial boiling point and boiling range	:	No data available
f) Flammability (solid, gas)	:	No data available
g) Upper/lower flammability or explosive limits:	:	No data available
h) Flash point	:	Not applicable
i) Autoignition temperature	:	No data available
j) Decomposition temperature	:	No data available
k) pH	:	ca.13.8 at 20 °C
l) Viscosity	:	
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
m) Water solubility at 20 °C	:	soluble
n) Partition coefficient: n-octanol/water	:	No data available
o) Vapor pressure	:	No data available

p) Density	:	1.11 g/cm ³ at 20 °C
Relative density	:	No data available
q) Relative vapor density	:	No data available
r) Particle characteristics	:	No data available
s) Explosive properties	:	Not classified as explosive.
t) Oxidizing properties	:	none

10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:
Metals , Light metals

Possible formation of:
Hydrogen

Violent reactions possible with:
ammonium compounds, Cyanides, organic nitro compounds, organic combustible substances, phenols, powdered alkaline earth metals, Acids, Nitriles, Magnesium

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

Aluminum, various plastics, Brass, Metals, metal alloys, Zinc, Tin, Light metals, glass, quartzes/silicate ceramics, animal/vegetable tissues

10.6 Hazardous decomposition products

In the event of fire: see section 5

11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages, damage of respiratory tract

Dermal: No data available

Skin corrosion/irritation

Remarks: Necrosis

Mixture causes severe burns.

Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage.

Risk of blindness!

Necrosis

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Irritation and corrosion, Risk of blindness!, Cough, Shortness of breath, collapse, death
Risk of blindness!

Other dangerous properties can not be excluded.

*Handle in accordance with good industrial hygiene and safety practice.

Components**sodium hydroxide****Acute toxicity**

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Symptoms: burns of mucous membranes, Cough, Shortness of breath, Possible damages:., damage of respiratory tract

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns.

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye damage.

(OECD Test Guideline 405)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

Patch test: - In vitro study

Result: negative

Remarks: (ECHA)

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Acute oral toxicity - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Acute inhalation toxicity - burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

12: Ecological information

12.1 Toxicity

Mixture

No data available

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Harmful effect due to pH shift.

Death of fish possible.

Does not cause biological oxygen deficit.

Neutralisation possible in waste water treatment plants.

Discharge into the environment must be avoided.

Components

sodium hydroxide

Toxicity to fish

LC50 - *Gambusia affinis* (Mosquito fish) - 125 mg/l - 96 h

Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Ceriodaphnia* (water flea) - 40.4 mg/l - 48 h

Remarks: (ECHA)

Toxicity to bacteria

EC50 - *Photobacterium phosphoreum* - 22 mg/l - 15 min

Remarks: (External MSDS)

13: Disposal considerations

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself

14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1824	1824	1824
14.2	UN Proper Shipping name	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION	Sodium hydroxide solution
14.3	Transport Hazard Class	8	8	8
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	none		

Other regulations

Hazchem Code : 2R

15: Regulatory information

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

National regulatory information

HSNO Group Standard Approval: HSR001576

Tracking Required: not required

Approved Handler Cert.: not required

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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