



## Safety Data Sheet

Date of Issue: 01.06.2021

Date of Expiry: 01.06.2026

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : ECP Limited  
**Address** : PO Box 34125, Birkenhead, Auckland 0746  
**Telephone** : +64 9 480 4386  
**Facsimile** : +64 9 480 4385  
**Emergency phone number** : 0800 243 622 (24 hours)

Product	Sodium Hydroxide	Code	47511
CAS No.	UN No.	DG Class/es	Packing group
1310-73-2	1823	8	II

**Recommended use** : Laboratory Investigations

### 2: Hazard's identification

#### 2.1 GHS Classification

Skin corrosion (Category A), H314

Aquatic toxicity (Acute or Chronic) (Category D), H402

#### 2.2 GHS Label elements, including precautionary statements

##### Pictogram



Signal word : **Danger**

##### Hazard statement(s)

H314 Causes severe skin burns and eye damage.

H402 Harmful to aquatic life.

##### Precautionary statement(s)

###### Prevention

P260 Do not breathe dusts or mists.

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.

### Storage

P405 Store locked up.

### Disposal

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

## 2.3 Other hazards - none

### 3: Composition/information on ingredients

#### 3.1 Substances

Synonyms : Caustic soda  
 Formula : NaOH  
 Molecular weight : 40.00 g/mol  
 CAS-No. : 1310-73-2  
 EC-No. : 215-185-5  
 Index-No. : 011-002-00-6

#### Hazardous ingredients

Component	Classification	Concentration
Sodium Hydroxide	8.2 A; 8.3 A; 9.1 D; H314, H318, H402 Concentration limits: >= 0.4 %: Met. Corr. 1, H290; >= 5 %: Skin Corr. 1A, H314; 2 - < 5 %: Skin Corr. 1B, H314; 0.5 - < 2 %: Skin Irrit. 2, H315; 0.5 - < 2 %: Eye Irrit. 2, H319;	<= 100 %

### 4: First aid measures

#### 4.1 Description of first-aid measures

##### General advice

First aider needs to protect himself. Show this material safety data sheet to the doctor in attendance.

##### 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.

Ambient fire may liberate hazardous vapours.

#### **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 inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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

For disposal see section 13.

### **7: Handling and storage**

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

For precautions see section 2.2.

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

Tightly closed. Dry.

#### **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 <sup>3</sup>	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

Application	Routes of Exposure	Health	Value
Workers	Inhalation	Long term local effects	1 mg/m <sup>3</sup>
Consumers	Inhalation	Long term local effects	1 mg/m <sup>3</sup>

### 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.

##### Control of environmental exposure

Do not let product enter drains.

## 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	Solid
Appearance	White, deliquescent flakes, pellets or mini pearl.
Odour	Odourless.
Melting Point	318 - 323 °C
Boiling Point	1390 °C @ 760 mm Hg
Solubility in Water	Soluble.
Solubility in Organic Solvents	Soluble in alcohol and glycerol. Insoluble in acetone and ether.
Specific Gravity	2.130 @ 20 °C

<b>pH</b>	12 (0.05% soln); 13 (1% soln); 14 (5% soln)
<b>Odour</b>	Threshold Odourless.
<b>Flammability</b>	Non-combustible.
<b>Molecular Weight</b>	40.01
<b>Other Information</b>	Absorbs water and carbon dioxide from the air.

## 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Exothermic reaction with strong acids.

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

Aluminium, brass, Metals, metal alloys, Zinc, Tin

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Sodium oxides

In the event of fire: see section 5

## 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

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)

Causes serious eye damage.

#### Respiratory or skin sensitization

Patch test: - In vitro study

Result: negative

Remarks: (ECHA)

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### **Reproductive toxicity**

No data available

### **Specific target organ toxicity - single exposure**

No data available

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

### **Additional Information**

RTECS: WB4900000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Other dangerous properties cannot be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## **12: Ecological information**

### **12.1 Toxicity**

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)

### **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 Other adverse effects**

Harmful effect due to pH shift.

Form's corrosive mixtures with water even if diluted.

Neutralisation possible in waste water treatment plants.  
Discharge into the environment must be avoided.

### 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

### 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	1823	1823	1823
14.2	UN Proper Shipping name	SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID	Sodium hydroxide, solid
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		
14.7	Incompatible materials	Aluminium, brass, Metals, metal alloys, Zinc, Tin		

### 15: Regulatory information

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

##### National regulatory information

HSNO Approval Code: HSR001547

HSNO Group Standard Approval: Outside of Group Standard

Tracking Required: not required

Approved Handler Cert.: not required

##### Notification status

AICS : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

### 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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