



## Safety Data Sheet

Date of Issue: 02.06.2024

Date of Expiry: 02.06.2029

### 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)

<b>Product Name</b>	<b>Potassium Hydroxide</b>
<b>Product Code</b>	42801
<b>CAS No.</b>	1310-58-3

**Recommended use** : Laboratory Investigations

### 2: Hazard's identification

#### 2.1 GHS Classification

Corrosive to Metals (Category 1), H290  
Acute toxicity, Oral (Category 3), H301  
Skin corrosion (Category 1B), H314  
Serious eye damage (Category 1), H318

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

##### Pictogram



**Signal word** : Danger

##### Hazard statement(s)

H290 May be corrosive to metals.  
H301 Toxic if swallowed.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.

##### Precautionary statement(s)

###### Prevention

P234 Keep only in original container.  
P260 Do not breathe dusts or mists.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

##### Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if

you feel unwell.

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.

### 2.3 Other hazards - none

## 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	:	Caustic potash
Formula	:	KOH
Molecular weight	:	56.11 g/mol
CAS-No.	:	1310-58-3
EC-No.	:	215-181-3
Index-No.	:	019-002-00-8

## 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves. 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**

Potassium 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**

Gives off hydrogen by reaction with metals. 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**

##### **Storage conditions**

No metal containers.

Tightly closed. Dry.

Absorbs carbon dioxide (CO<sub>2</sub>) from air.

Air sensitive. strongly hygroscopic

### 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

#### Derived No Effect Level (DNEL)

Application Area	Routes of Exposure	Health Effect	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.

## 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### a) Appearance

Form : pellets

Color : colorless

b) Odor : odorless

c) Odor Threshold : Not applicable

d) pH : ca.13.5 at 5.6 g/l at 25 °C

e) Melting point/freezing point : Melting point/range: 361 °C - lit.

f) Initial boiling point and boiling range : 1,327 °C at 1,013 hPa

g) Flash point : Not applicable

h) Evaporation rate : No data available

i) Flammability (solid, gas) : No data available

j) Upper/lower flammability or explosive limits : No data available

k) Vapor pressure	:	1 hPa at 719 °C
l) Vapor density	:	No data available
m) Relative density	:	No data available
n) Water solubility	:	1,130 g/l at 20 °C
o) Partition coefficient:		
n-octanol/water	:	Not applicable for inorganic substances
p) Autoignition temperature	:	No data available
q) Decomposition temperature	:	No data available
r) Viscosity	:	
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
s) Explosive properties	:	No data available
t) Oxidizing properties	:	No data available

## 9.2 Other safety information

No data available

## 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) . Heat of solution is very high, and with limited amounts of water, violent boiling may occur

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Do not heat above melting point.  
no information available

### 10.5 Incompatible materials

animal/vegetable tissues, glass, various plastics, Metals

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male - 333 mg/kg

(OECD Test Guideline 425)

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: (IUCLID)

Serious eye damage/eye irritation

Eyes - Rabbit  
Result: Causes serious eye damage.  
(OECD Test Guideline 405)  
Causes serious eye damage.

Respiratory or skin sensitization  
Sensitisation test: - Guinea pig  
Result: negative  
Remarks: (IUCLID)

Germ cell mutagenicity  
Test Type: Ames test  
Test system: S. typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative  
Remarks: (ECHA)  
Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

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**

RTECS: TT2100000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After uptake:  
Vomiting  
shock  
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) - 80 mg/l - 96 h  
Remarks: (IUCLID)

### **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

No data available

## 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	1813	1813	1813
14.2	UN Proper Shipping name	POTASSIUM HYDROXIDE, SOLID	POTASSIUM HYDROXIDE, SOLID	Potassium 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	animal/vegetable tissues, glass, various plastics, Metals		

### Other regulations

Hazchem Code : 2W

## 15: Regulatory information

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

#### National regulatory information

HSNO Approval Code: HSR001546

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006

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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