

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product name: POTASSIUM HYDROXIDE FLAKE
REACH registered number(s): 01-2119487136-33-XXXX
CAS number: 1310-58-3
EINECS number: 215-181-3
Index number: 019-002-00-8
Synonyms: CAUSTIC POTASH

Relevant identified uses of the substance or mixture and uses advised against:

Use of substance / mixture: Fertiliser ingredient. Electroplating / photographic reagent. Battery electrolyte. Soap raw material. Reagent (carbon dioxide absorption process).

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification under CLP: Acute Tox. 4: H302; Skin Corr. 1A: H314; Met. Corr. 1: H290

Classification under CHIP: Xn: R22; C: R35

Most important adverse effects: Harmful if swallowed. Causes severe skin burns and eye damage. May be corrosive to metals.

Label elements:

Label elements under CLP:

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

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Signal words: Danger
Hazard pictograms: GHS05: Corrosion
GHS07: Exclamation mark



Precautionary statements: P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330: Rinse mouth.

Other hazards:
PBT: This product is not identified as a PBT/vPvB substance.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

Hazardous ingredients:	POTASSIUM HYDROXIDE			
EINECS	CAS	CHIP Classification	CLP Classification	Percent
215-181-3	1310-58-3	-	Acute Tox. 4: H302; Skin Corr. 1A: H314	70-90%

4. FIRST AID MEASURES

Description of first aid measures:

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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Most important symptoms and effects, both acute and delayed:

- Skin contact:** Blistering may occur. Progressive ulceration will occur if treatment is not immediate.
- Eye contact:** Corneal burns may occur. May cause permanent damage.
- Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.
- Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.
- Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.
- Indication of any immediate medical attention and special treatment needed:**
- Immediate / special treatment:** Eye bathing equipment should be available on the premises.

5. FIRE-FIGHTING MEASURES

- Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.
- Special hazards arising from the substance or mixture:**
- Exposure hazards:** Corrosive. In combustion emits toxic fumes.
- Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures:**
- Personal precautions:** If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.
- Environmental precautions:** Do not discharge into drains or rivers.
- Methods and material for containment and cleaning up:**
- Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method.
- Reference to other sections:** Refer to section 8 of SDS.

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7. HANDLING AND STORAGE

Precautions for safe handling:

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.
Do not handle in a confined space. Avoid the formation or spread of dust in the air.

Conditions for safe storage, including any incompatibilities:

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

Specific end use(s): No data available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Hazardous ingredients: POTASSIUM HYDROXIDE

Workplace exposure limits: Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	-	2 mg/m ³	-	-

DNEL / PNEC: No data available.

Exposure controls:

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter.

Hand protection: Rubber gloves. Neoprene gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

State: Solid

Colour: White

Odour: Odourless

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Soluble

Also soluble in: Ethanol.

Boiling point/ range °C: 1327 **Melting point/ range °C:** 406

Vapour pressure: <0.1 hPa **Relative density:** 2.04

pH: 13.5

Other information: No data available.

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10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended transport or storage conditions.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions:

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

Conditions to avoid: Heat.

Incompatible materials:

Materials to avoid: Strong oxidising agents. Strong acids.

Hazardous decomposition products: In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	333-388	mg/kg

Hazardous ingredients:	POTASSIUM HYDROXIDE			
ORL	RAT	LD50	273	mg/kg

Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	ING	Hazardous: calculated
Corrosivity	OPT INH DRM	Hazardous: calculated

Symptoms / routes of exposure:

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

[cont...]

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12. ECOLOGICAL INFORMATION

Toxicity:

Ecotoxicity values:

Species	Test	Value	Units
DAPHNIA	48H	EC50 30-1000	mg/l
FISH	96H	LC50 50-165	mg/l

Persistence and degradability: Not applicable.

Bioaccumulative potential: Not applicable.

Mobility in soil: Absorbed only slowly into soil.

Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

Other adverse effects: Negligible ecotoxicity.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. TRANSPORT INFORMATION

UN number: UN1813

UN proper shipping name: POTASSIUM HYDROXIDE, SOLID

Transport hazard class(es): 8

Packing group: II

Environmentally hazardous: No **Marine pollutant:** No

Special precautions for user: No special precautions.

Tunnel code: E

Transport category: 2

15. REGULATORY INFORMATION

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

[cont...]

16. OTHER INFORMATION

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

Phrases used in s.2 and s.3:

- H290: May be corrosive to metals.
- H302: Harmful if swallowed.
- H314: Causes severe skin burns and eye damage.
- R22: Harmful if swallowed.
- R35: Causes severe burns.

Legend to abbreviations:

- PNEC = predicted no effect level
- DNEL = derived no effect level
- LD50 = median lethal dose
- LC50 = median lethal concentration
- EC50 = median effective concentration
- IC50 = median inhibitory concentration
- dw = dry weight
- bw = body weight
- cc = closed cup
- oc = open cup
- MUS = mouse
- GPG = guinea pig
- RBT = rabbit
- HAM = hamster
- HMN = human
- MAM = mammal
- PGN = pigeon
- IVN = intravenous
- SCU = subcutaneous
- SKN = skin
- DRM = dermal
- OCC = ocular/corneal
- PCP = physico-chemical properties