

SAFETY DATA SHEET

CAUSTIC POTASH FLAKE

mcpf100

1. Identification of the substance/preparation and of the company/undertaking

Product name : CAUSTIC POTASH FLAKE **Supplier** : Brenntag UK and Ireland
 Albion House
 Rawdon Park
 Green Lane
 Yeadon
 Leeds
 LS19 7XX

Chemical product name : POTASSIUM HYDROXIDE
Synonyms : POTASSIUM HYDRATE

EMERGENCY ONLY TELEPHONE NUMBER : (N.C.E.C. CULHAM) 01865 407333 **Telephone No.** : (0113) 3879200
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Formula : KOH **Molecular Mass** : 56.11

2. Composition/information on ingredients

Substance/Preparation : Substance

Chemical name*	CAS No.	%	EC Number	Symbol	R-Phrases
1) POTASSIUM HYDROXIDE	1310-58-3	>=89.5	215-181-3	C	R22, R35
2) SODIUM HYDROXIDE ...%	1310-73-2	<=1	215-185-5	C	R35

* Occupational Exposure Limit(s), if available, are listed in Section 8

CAS No. 1310-58-3
EINECS Number 215-181-3

3. Hazards identification

Human health hazards : Harmful if swallowed. Causes severe burns.

4. First-aid measures

First-Aid measures

- Inhalation** : Remove from exposure. Keep warm and at rest. If there is difficulty in breathing, give oxygen. If breathing stops or shows signs of failing, give artificial respiration. Do not use mouth to mouth ventilation. Obtain medical attention urgently.
- Ingestion** : Wash out mouth with water. Have victim drink 240-300ml of water to dilute stomach contents. Obtain medical attention. Do not induce vomiting.
- Skin contact** : Immediately flood the skin with large quantities of water, preferably under a shower. Boric saline solution should be used if available. Obtain medical attention if blistering occurs or redness persists. Remove contaminated clothing as washing proceeds. Contaminated clothing should be washed or dry-cleaned before re-use.
- Eye Contact** : Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention urgently.

Effects and symptoms

- Inhalation** : Exposure to mist at high concentrations may have the following effects:- bronchitis. pulmonary oedema.
- Ingestion** : Swallowing may have the following effects:- haematemesis. perforation of the oesophagus. gastric perforation. Aspiration during swallowing or vomiting may severely damage the lungs.
- Skin contact** : corrosive The amount of tissue damage depends upon length of contact. Skin contact can produce inflammation and blistering.
- Eye Contact** : Corrosive to eyes. Eye contact can result in corneal damage or blindness.

Aggravating conditions : Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction or dermatitis. Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.

Notes to physician : In the case where material has entered the eyes, a sterile pad and bandage should be applied.

5. Fire-fighting measures

Extinguishing Media

- Suitable** : Select extinguishing agent appropriate to other materials involved. Use water spray, fog or alcohol resistant foam. Do not use dry extinguishers containing ammonium compounds- see stability and reactivity.
- Unusual fire/explosion Hazards** : The product reacts with water to generate heat which may be sufficient to ignite nearby combustible materials. This product may give rise to hazardous fumes in a fire.
- Hazardous thermal (de)composition products** : Attacks many metals liberating hydrogen gas. Product decomposes into toxic fumes of potassium oxide.
- Special fire-fighting procedures** : Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.
- Protection of fire-fighters** : Wear full protective clothing and self-contained breathing apparatus.

6. Accidental release measures

- Personal Precautions** : Wear appropriate protective clothing. Wear respiratory protection.
- Environmental precautions and cleanup methods** : Small spillages may be flushed with large quantities of water. Large spillages should be collected for disposal. Finally flush area with plenty of water.
: Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

7. Handling and storage

- Handling** : Use in well ventilated area. Avoid contact with eyes, skin and clothing. Emergency shower and eye wash facilities should be readily available.
- Storage** : Storage area should be: dry, cool, under cover, well ventilated. Keep containers closed to prevent ingress of moisture. If outdoor storage of solid caustic is unavoidable, pallets should be protected by black sheets to prevent extremes of weather. Suitable storage materials are:- stainless steel, polyethylene. Do not store in:- aluminium and its alloys, brass, tin, zinc.
- Packaging materials**
- Recommended use** : Use original container.

8. Exposure controls/personal protection

- Engineering measures** : Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- Hygiene measures** : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

<u>Ingredient Name</u>	<u>Workplace Exposure Limits</u>
1) POTASSIUM HYDROXIDE	STEL: 2 mg/m ³

Personal protective equipment

- Respiratory system** : Dust respirator.
- Skin and body** : Wear: dust-proof overall with hood, rubber apron, rubber boots.
- Hands** : PVC or rubber gloves.
- Eyes** : Chemical splash goggles.

9. Physical and chemical properties

- Physical state** : Solid. Flakes.
- Colour** : White.
- Odour** : Odourless.
- Boiling point** : 1320
- Melting point** : 360°C (680°F)
- Density** : 0.84 g/cm³
- Vapour pressure** : 1.3 hPa (719°C)
- Solubility** : 120g / 100ml water at 25°C
- pH** : >11.5 at 1% w/w in water.
14 at 20°C, 100g/l
- Flash point** : Not available.

10. Stability and reactivity

Stability	: The product is stable.
Conditions to Avoid	: Exposure to water or moisture. Exposure to direct sunlight.
Materials to avoid	: Acids. Ammonium salts. Halogenated solvents. Nitroalkanes. Acid anhydrides. Aluminium. Magnesium. Zinc. Tin. Brass.
Hazardous decomposition products	: Attacks many metals liberating hydrogen gas. Product decomposes into toxic fumes of potassium oxide.

11. Toxicological information

Local effects	
Skin irritation	: Extremely hazardous in case of skin contact (corrosive).
Eye irritation	: Extremely hazardous in case of eye contact (corrosive).
Acute toxicity	: Oral LD50 (rat) 273mg/kg. Estimated fatal dose for adults is 5g. Inhalation: Causes irritation of the respiratory tract. Ingestion: Causes burns in the mouth and oesophagus. May cause intestinal perforation.
Chronic toxicity	: Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction or dermatitis. Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.


12. Ecological information

Ecotoxicity	: Ecotoxicity in water: (LC50): 80 mg/l, 96 hours [Fish].
	Harmful to aquatic organisms. The hazard of KOH for the environment is caused by the hydroxyl ion (pH effect). For this reason the effect of KOH on the organisms depends on the buffer capacity of the aquatic or terrestrial.

13. Disposal considerations


Methods of disposal ; Waste of residues ; Contaminated packaging	: Dispose of in accordance with all applicable local and national regulations.
Waste Classification	: Not applicable.

14. Transport information

International transport regulations	
UN : UN number	1813
UN : Proper shipping name	Potassium hydroxide, solid
UN : Class	8
UN : Packing group	II
UN : Label	
ADR/RID : Class	8
ADR/RID : Item Number	41(b)
ADR/RID : Hazard identification number	80
TREMCARD TEC(R)	TEC(R)-123
IMDG : Proper shipping name	(POTASSIUM HYDROXIDE)
IMDG : Packing group	II
IMDG : Class	8
IATA : Proper shipping name	(POTASSIUM HYDROXIDE)
IATA : Packing group	II
IATA : Class	8
IATA : Additional Information	-

15. Regulatory information

EU Regulations

Hazard symbol(s)	:	
Classification	:	Corrosive
Risk Phrases	:	R35 Causes severe burns. R22 Harmful if swallowed.
Safety Phrases	:	S1/2 Keep locked up and out of reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Contains	:	- POTASSIUM HYDROXIDE
Product Use	:	Classification and labelling have been performed according to EU directives 67/548/EEC, 88/379/EEC, including amendments and the intended use. - Consumer applications.

16. Other information

HISTORY

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Notice to Reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Version 2.02

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