

SAFETY DATA SHEET
POTASSIUM HYDROXIDE FLAKE 90%

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Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: POTASSIUM HYDROXIDE FLAKE 90%
CAS number: 1310-58-3
EINECS number: 215-181-3
Product code: GPC8060
Synonyms: CAUSTIC POTASH

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: PC21: Laboratory chemicals.

1.3. Details of the supplier of the safety data sheet

Company name: Atom Scientific Ltd
2b East Tame Business Park
Hyde
Manchester
SK14 4GX
Tel: 0161 366 5123
Fax: 01704 337167
Email: technical@atomscientific.com

1.4. Emergency telephone number

Emergency tel: 07833453806

Section 2: Hazards identification

2.1. Classification of the substance or mixture

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

Classification under CHIP: Xn: R22; C: R35

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

2.2. Label elements

Label elements under CLP:

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

Signal words: Danger

Hazard pictograms: GHS05: Corrosion
GHS07: Exclamation mark

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Precautionary statements: P260: Do not breathe dust/fumes/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330: Rinse mouth.
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing.
Rinse skin with water/shower.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310: 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.

2.3. Other hazards

Other hazards: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: POTASSIUM HYDROXIDE FLAKE 90%

CAS number: 1310-58-3

EINECS number: 215-181-3

Contains: Formula : HKO

Molecular weight : 56.11 g/mol

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. If unconscious, check for breathing and apply artificial respiration if necessary. Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: Severe skin irritation.

[cont...]

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Eye contact: Causes serious eye damage.

Ingestion: No data available.

Inhalation: No data available.

Delayed / immediate effects: No data available.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: No data available.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Not applicable.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear respiratory protection. Ensure adequate ventilation. Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Reference to other sections: Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed. Absorbs carbon dioxide (CO₂) from air. Air sensitive. Strongly hygroscopic.

Suitable packaging: Not applicable.

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7.3. Specific end use(s)

Specific end use(s): No special requirement.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits:

Respirable dust

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

8.1. DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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 such as NIOSH (US) or CEN (EU).

Hand protection: Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min 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.

Eye protection: Face-shield. Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin 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.

Environmental: Do not let product enter drains. Prevent from entering in public sewers or the immediate environment.

[cont...]

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Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Flakes

Solubility in water: Soluble

Melting point/range°C: 361 °C - lit.

Relative density: 2.044 g/cm³

Vapour pressure: 1 hPa at 719 °C

pH: 13.5

9.2. Other information

Other information: Not applicable.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: No data available.

10.2. Chemical stability

Chemical stability: Heat of solution is very high, and with limited amounts of water, violent boiling may occur.

10.3. Possibility of hazardous reactions

Hazardous reactions: No data available.

10.4. Conditions to avoid

Conditions to avoid: Do not heat above melting point.

10.5. Incompatible materials

Materials to avoid: Nitro compounds, Organic materials, Magnesium, Copper, Water, reacts violently with:
Metals, Light metals, Contact with aluminum, tin and zinc liberates hydrogen gas.
Contact with n formation of shocksensitive salts., vigorous reaction with:, Alkali metals,
Halogens, Azides, Anhydrides

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of potassium oxides.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

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

[cont...]

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Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Based on test data
Skin corrosion/irritation	DRM	Based on test data
Serious eye damage/irritation	OPT	Based on test data

Symptoms / routes of exposure

Skin contact: Severe skin irritation.

Eye contact: Causes serious eye damage.

Ingestion: No data available.

Inhalation: No data available.

Delayed / immediate effects: No data available.

Other information: Not applicable.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	80	mg/l

12.2. Persistence and degradability

Persistence and degradability: Not applicable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Recovery operations: Not applicable.

Disposal of packaging: Dispose of as unused product.

[cont...]

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

Section 14: Transport information

14.1. UN number

UN number: UN1813

14.2. UN proper shipping name

Shipping name: POTASSIUM HYDROXIDE, SOLID

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: II

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 2

Section 15: Regulatory information

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

Specific regulations: This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 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.

[cont...]

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Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.