

Potassium Hydroxide Flakes, $\geq 90\%$ (Caustic Potash) — Catalogue No. ASC-8067

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Product Information

Product name	Potassium Hydroxide Flakes, $\geq 90\%$ (Caustic Potash)
Catalogue number	ASC-8067
Synonyms	Caustic potash; potash lye; potassium hydrate
CAS No. / EC No.	1310-58-3 / 215-181-3
Formula	KOH
Molecular weight	56.11 g/mol
UN number	UN1813, Class 8, PG II
HS code	2815.20
Grade	Laboratory reagent
Pack sizes	250 g, 500 g and ...

Description and Intended Use

Potassium hydroxide is a strong inorganic base supplied as white, hygroscopic flakes. It dissolves in water with strong heat release, giving strongly alkaline solutions ($0.1\text{ M} \approx \text{pH } 13$). It is used for pH adjustment, preparation of alkaline and standard solutions, saponification, carbon dioxide absorption, organic synthesis, and the 3% KOH string test in microbiology. For laboratory, analytical and industrial use only. Not for food, drug, cosmetic or household use.

Specifications

Parameter	Specification
Appearance	White flakes
Assay (KOH)	$\geq 90.0\%$
Potassium carbonate (K_2CO_3)	$\leq 0.5\%$
Chloride (Cl)	$\leq 0.005\%$
Sulfate (SO_4)	$\leq 0.002\%$
Phosphate (PO_4)	$\leq 0.002\%$
Nitrate (as N)	$\leq 0.0005\%$
Silicate (SiO_3)	$\leq 0.01\%$
Iron (Fe)	$\leq 0.0002\%$
Sodium (Na)	$\leq 0.5\%$
Aluminium (Al)	$\leq 0.001\%$

Parameter	Specification
Calcium (Ca)	≤ 0.002%
Nickel (Ni)	≤ 0.0005%
Heavy metals (as Pb)	≤ 0.001%

Physical Properties

Appearance	White flakes; hygroscopic
Melting point	About 360 °C
Boiling point	1,316 °C
Density	2.04 g/cm ³ at 20 °C
Solubility	Very soluble in water (strongly exothermic); soluble in ethanol and glycerol
pH	About 13 (0.1 M solution)

Preparing Solutions

- Always add the flakes slowly to cold water while stirring. Never add water to the flakes.
- Use a heat-resistant vessel and allow the solution to cool before making up to volume.
- Because the assay is about 90%, standardise solutions by titration when an exact concentration is needed.
- Example: 3% KOH (string test) — dissolve 3 g in purified water and make up to 100 mL.

Storage and Shelf Life

Storage	Store at 15–25 °C in the original tightly closed plastic container, in a dry place. Store locked up.
Incompatible materials	Acids; aluminium, zinc, tin and their alloys; ammonium salts; halogenated organic compounds.
Shelf life	As stated on the label and lot Certificate of Analysis, when stored unopened as directed.

Safety

Danger: causes severe skin burns and eye damage; harmful if swallowed; may be corrosive to metals. Schedule 6 poison. Dangerous Goods Class 8. Read the Safety Data Sheet before use.

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