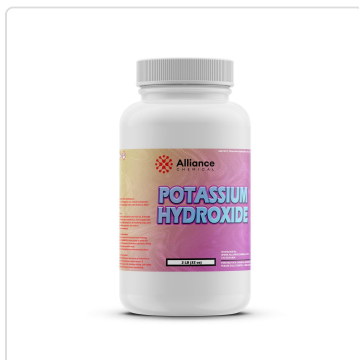


PRODUCT IDENTIFICATION



Product Name: Potassium Hydroxide (KOH)

CAS Number: 1310-58-3

Molecular Formula: HKO

Molecular Weight: 56.106 g/mol

Grade: Technical Grade

Purity / Concentration: Not Available

Synonyms: Caustic Potash, Potash Lye

PRODUCT OVERVIEW

Potassium Hydroxide, also known as Caustic Potash, is a high-purity technical grade solid available as a white crystalline powder with an 86.5% assay. This versatile strong base is essential for industrial processes requiring precise pH control and chemical synthesis.

Grade Significance: Technical Grade ensures a reliable balance between high purity and cost-effectiveness, making it suitable for standard industrial and manufacturing applications where stringent analytical standards are not required.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	86.5	85	—	Titration with HCl
Color (APHA)	APHA	10	—	20	ASTM D1209
Water Content	%	13	—	15	Karl Fischer Titration
Heavy Metals (as Pb)	ppm	0.5	—	10	ICP-OES
Iron (Fe)	ppm	1	—	10	ICP-OES
Potassium Carbonate K ₂ CO ₃	%	0.4	—	0.5	Titration
Chloride (Cl ⁻)	ppm	15	—	50	Ion Chromatography
Sulfate (SO ₄ ²⁻)	ppm	10	—	50	Ion Chromatography

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White crystalline powder	Odor	Odorless
Form	Solid	Boiling Point	1320°C (2408°F)
Melting / Freezing Point	360°C (680°F)	Specific Gravity	2.044
Solubility	Highly water-soluble, moderate alcohol solubility	Molecular Formula	HKO
Molecular Weight	56.106 g/mol	Density (25°C)	0.84 g/mL
Partition Coefficient (log P)	Not applicable (inorganic salt)		

APPLICATIONS

1. **Water Treatment** — Used effectively to neutralize acidic water and maintain optimal pH levels in various treatment processes.
2. **Chemical Manufacturing** — Acts as a powerful base in complex chemical reactions and large-scale synthesis applications.
3. **Consumer Goods** — Functions as a critical saponifying agent in the production of high-quality soaps and industrial detergents.
4. **Energy Storage** — Utilized as a high-performance electrolyte in the manufacturing of alkaline batteries.

STORAGE & HANDLING

Potassium Hydroxide is highly hygroscopic and caustic, meaning it must be stored in a cool, dry, and well-ventilated area to prevent moisture absorption and container degradation. Proper storage is critical to mitigate the risk of severe skin burns and eye damage associated with this hazardous material.

- Store in a cool, dry place away from moisture and incompatible substances.
- Use appropriate personal protective equipment (PPE) including gloves and goggles.
- Ensure containers are tightly sealed to prevent moisture absorption.
- Material compatibility includes HDPE and glass; avoid aluminum and zinc.

AVAILABLE PACKAGING

- 2 lbs.
- 5 Lbs.
- 55 Lbs.

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H302: Harmful if swallowed [Warning Acute toxicity, oral]
- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

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