

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Potassium Hydroxide
- English Name: Potassium Hydroxide; Caustic Potash
- CAS Number:1310-58-3
- Formula:KOH
- Molecular Weight:56.11 g/mol
- Product Characteristics: White solid pellets with strong hygroscopicity. High-purity strong base with extreme corrosivity. Chemically stable, non-flammable, soluble in water with intense heat release. Suitable for chemical synthesis, soap making, and laboratory research.

2. Technical Specifications

Item	Specification
Appearance	White solid pellets
Purity (KOH Content)	≥ 85.0%
Water Content	≤ 14.0%
Carbonate (as K ₂ CO ₃)	≤ 1.0%
Heavy Metals (Pb)	≤ 0.5 ppm
Heavy Metals (As)	≤ 0.1 ppm
Iron (Fe)	≤ 1 ppm
Melting Point	360°C
Boiling Point	1320°C
Solubility (25°C)	112 g/100 mL water
Corrosivity	Extremely corrosive to skin, tissues, and metals

3. Product Advantages

1. High Purity: Low impurity content ensures stable performance in neutralization and synthesis.
2. Strong Alkalinity: Ideal for pH adjustment and chemical synthesis reactions.
3. Hygroscopic Property: Suitable for moisture absorption in industrial processes.
4. Reliable Quality: Strict control of heavy metals and carbonates meets industrial standards.

4. Application Fields

- Chemical Synthesis: Precursor for potassium salts, pharmaceuticals, and organic intermediates.
- Soap & Detergent: Production of liquid soaps and industrial detergents.
- Laboratory Research: Analytical reagent and pH adjuster.
- Industrial Processing: Electroplating, textile mercerizing, and biodiesel production.

5. Usage Methods

- Dosage: 5-50% concentration (dilute with water for low-corrosivity use).
- Application: Add slowly to water (never reverse) to control heat release; use corrosion-resistant equipment.



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- Optimal Conditions: Operate in well-ventilated areas; avoid contact with acids and moisture.

6. Packaging & Storage

- Packaging: 1kg/5kg HDPE bags, 25kg moisture-proof cardboard drums (UN-approved).
- Storage: Cool, dry, well-ventilated warehouse ($\leq 30^{\circ}\text{C}$); sealed, moisture-proof, away from acids.
- Shelf Life: 12 months (unopened, specified conditions).
- Transportation: Classified as corrosive hazardous goods; transport per regulations.

7. Safety & Protection

- Extremely corrosive and hygroscopic: No smoking near storage/use areas.
- Wear chemical safety goggles, face shield, nitrile rubber gloves, and chemical-resistant clothing.
- Avoid inhalation, skin contact, and ingestion; ensure local exhaust ventilation.

8. Quality Assurance

- Manufactured under ISO 9001 quality management system.
- Each batch comes with a COA for compliance verification.
- Provide technical support for safe application and corrosion control.



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