

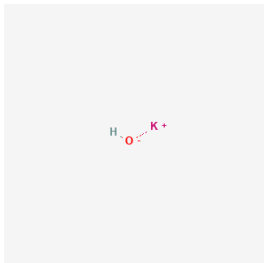
Potassium Hydroxide 25% Solution Technical Grade

Technical · 25%

Alliance Code
potassium-hydroxide-25-solution-
technical-grade-caustic-potash-
liquid-koh

Reviewed
2026-10-07

Revision
1.4

CAS number 1310-58-3	UN number UN1814	Hazard class · packing group 8 · PG II
 Structure · PubChem	Grade Technical · 25%	Signal word Danger
Hazards Corrosive Irritant / harmful H290 H302 H314		
Proper shipping name Potassium hydroxide solution		

IDENTITY & COMPOSITION

PRODUCT NAME

Potassium Hydroxide 25% Solution Technical Grade

GRADE

Technical

CAS NUMBER

1310-58-3 Adjudicated

MOLECULAR WEIGHT

56.106 Adjudicated

ALLIANCE CODE

potassium-hydroxide-25-solution-technical-grade-caustic-potash-liquid-koh

CONCENTRATION

25%

FORMULA

HKO Adjudicated

PRODUCT TYPE

Solution

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (KOH)	≥ 23.75 to $\leq 26.25\%$	24.92 %	—	Interpreted
Chloride (as Cl)	42 ppm Max.	5.0 ppm	—	Interpreted
Iron (as Fe)	2.5 ppm Max.	0.16 ppm	—	Interpreted
Mercury (as Hg)	0.06 ppm Max.	0.0059 ppm	—	Interpreted
Potassium carbonate (as K ₂ CO ₃)	0.11 % Max.	0.033 %	—	Interpreted
Sodium (as Na)	1400 ppm Max.	544 ppm	Flame AAS / ICP-OES	Interpreted
Sulfate (as K ₂ SO ₄)	6 ppm Max.	1.9 ppm	Turbidimetric (BaCl ₂)	Interpreted
Heavy metals (as Pb)	2.5 ppm Max.	0.45 ppm	Colorimetric sulfide comparison	Interpreted

Values are reproduced from the current product reference. Source labels do not by themselves establish a supplier guarantee or a test result for your lot. Confirm applicable acceptance limits and request lot-specific documentation.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE Technical	25%	—	current
ACS Reagent	45%	—	potassium-hydroxide-45-solution-acs-grade
Technical	45%	—	potassium-hydroxide-45-solution-technical-grade-caustic-potash-liquid-koh
Technical	30%	—	potassium-hydroxide-30-solution-technical-grade

Typical assay shown is the rolling-window mean from the sibling product's most recent lots. Grade selection drives downstream end-use — verify the sibling grade matches your specification before substitution.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Clear, colorless liquid	Adjudicated
Density	1.24 g/ml at 20°C	Interpreted

Strong base — hygroscopic; values may drift in opened containers. See storage guidance.

MATERIALS OF CONSTRUCTION

MATERIAL	RATING	CONDITIONS	SOURCE
metal containers	Not recommended	25% KOH solution	rcilabsca n.com
nitrile rubber (glove material)	Compatible	25% KOH solution; full contact and splash contact glove material	rcilabsca n.com

MATERIAL	RATING	CONDITIONS	SOURCE
corrosion-resistant container with a resistant inner liner	Compatible	25% potassium hydroxide solution; storage	rcilabsca n.com

Compatibility is drawn from published manufacturer and supplier documentation for this product; each rating is sourced. Confirm against your specific duty cycle before equipment selection.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN1814 **Adjudicated**

HAZARD CLASS

8 **Adjudicated**

PACKING GROUP

II **Adjudicated**

PROPER SHIPPING NAME

Potassium hydroxide solution **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H290, H302, H314 **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

P234, P260, P264, P270, P280,
P301+P312+P330, P301+P330+P331,
P303+P361+P353, P304+P340,
P305+P351+P338, P310, P321, P363, P390,
P405, P406, P501

Adjudicated

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— no canonical

ACGIH TLV

— no canonical

NIOSH REL

2 mg/m³ ceiling **NIOSH Pocket Guide**

NIOSH IDLH

— no canonical

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: ECHA CLP Annex VI for harmonised classifications, NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

APPLICATIONS

Industrial uses of potassium hydroxide: detergents/soaps, dyeing and bleaching, paint and varnish removers, electroplating, photo engraving, lithography, alkaline batteries, analytical chemistry, fuel and

gas, thickening agent, organic synthesis, stabilizer

corecheminc.com

Used in a large number of manufacturing processes store.astm.org

Chemical for analysis and production rcilabscan.com

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

STORAGE & HANDLING

RECOMMENDED STORAGE

Keep tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight and away from heat, water and incompatible materials. No metal containers; store in a corrosive-resistant container with a resistant inner liner.

rcilabscan.com

INCOMPATIBILITIES

heat, water, direct sunlight, metal containers

rcilabscan.com

HANDLING PRECAUTIONS

Use full PPE including chemical splash goggles and alkali-resistant gloves. Add base to water slowly with stirring. Highly exothermic dilution. Class-level guidance — not product-specific; the SDS controls.

SHELF LIFE

Consult Technical Services for product-specific shelf life

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

UN1814, Potassium hydroxide solution, 8, PG II

Sourced from 49 CFR 172.101. Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS
60

PLACARD
Corrosive

PACKING GROUP
PG II

REVISION HISTORY

VERSION	DATE	CHANGE	TRIGGER
1.4	2026-10-07	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. - ghsClassification · canonical change (coa.data_provenance / adjudication) - hazard_h_codes · canonical change (coa.data_provenance / adjudication) - hazard_p_codes · canonical change (coa.data_provenance / adjudication)	canonical_change
1.3	2026-09-30	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. appearance · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-08-27	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. oel_niosh_rel · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-08-11	Canonical data updated: 12 fields changed via the provenance/adjudication pipeline. - casNumber · canonical change (coa.data_provenance / adjudication) - formula · canonical change (coa.data_provenance / adjudication) - molecularWeight · canonical change (coa.data_provenance / adjudication) - unNumber · canonical change (coa.data_provenance / adjudication) - hazardClass · canonical change (coa.data_provenance / adjudication) - packingGroup · canonical change (coa.data_provenance / adjudication) - dotProperShippingName · canonical change (coa.data_provenance / adjudication) - signalWord · canonical change (coa.data_provenance / adjudication) - ghsClassification · canonical change (coa.data_provenance / adjudication) - hazard_h_codes · canonical change (coa.data_provenance / adjudication) - hazard_p_codes · canonical change (coa.data_provenance / adjudication) - dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication)	canonical_change

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.