

# POTASSIUM HYDROXIDE

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## SYNONYMS

Caustic potash, Potassium hydrate; INS No. 525

## DEFINITION

Chemical names

Potassium hydroxide

C.A.S. number

1310-58-3

Chemical formula

KOH

Formula weight

56.11

Assay

Not less than 85.0% of total alkali calculated as KOH

## DESCRIPTION

White or nearly white pellets, flakes, sticks, fused masses or other forms

## FUNCTIONAL USES Alkali

## CHARACTERISTICS

### IDENTIFICATION

Solubility (Vol. 4)

Very soluble in water; freely soluble in ethanol

Test for alkali

A 1 in 100 solution of the sample is strongly alkaline

Test for potassium  
(Vol. 4)

Passes test

### PURITY

Water insoluble substances

A 1 in 20 solution of the sample is complete, clear, and colourless

Carbonate

Not more than 3.5% (as potassium carbonate)  
Each ml of 1 N sulfuric acid required between the phenolphthalein and methyl orange endpoints in the "METHOD OF ASSAY" is equivalent to 138.2 mg of  $K_2CO_3$ .

Lead (Vol. 4)

Not more than 2 mg/kg  
Determine using an atomic absorption technique appropriate to the specified level. The selection of sample size and method of sample preparation may be based on the principles of the method described in Volume 4, "Instrumental Methods."

## METHOD OF ASSAY

Dissolve about 1.5 g of the sample, accurately weighed, in 40 ml of recently boiled and cooled water, cool to 15°, add phenolphthalein TS and titrate with 1 N sulfuric acid. At the discharge of the pink colour, record the volume

of acid required, then add methyl orange TS and continue to titrate to a persistent pink colour. Record the total volume of acid required for the titration. Each ml of 1 N sulfuric acid is equivalent to 56.11 mg of total alkali, calculated as KOH.