**POTASSIUM HYDROXIDE**

Kalii hydroxidum

**DEFINITION**

Content: 85.0 per cent to 100.5 per cent of total alkali, calculated as KOH.

**CHARACTERS**

Appearance: white or almost white, crystalline, hard masses, supplied as sticks, pellets or irregularly shaped pieces, deliquescent, hygroscopic, absorbing carbon dioxide.

Solubility: very soluble in water, freely soluble in ethanol (96 per cent).

**IDENTIFICATION**

A. pH (2.2.3): minimum 10.5.
   - Dissolve 0.1 g in 10 ml of water R, solution A used for identification test B). Dilute 1 ml of this solution to 100 ml with water R.
   - Dissolve 2.000 g in 25 ml of carbon-dioxide free water R.

B. 1 ml of solution A prepared in identification test A gives reaction (b) of potassium (2.3.1).

**TESTS**

**Solution S1.** Dissolve 2.5 g in 10 ml of water R. Carefully add 2 ml of nitric acid R while cooling, and dilute to 25 ml with dilute nitric acid R.

**Solution S2.** Dissolve 10 g in 15 ml of distilled water R. Carefully add 12 ml of hydrochloric acid R while cooling, and dilute to 50 ml with dilute hydrochloric acid R.

Appearance of solution. The solution is clear (2.2.1) and colourless (2.2.2, Method II).

Dissolve 5 g in carbon dioxide-free water R and dilute to 50 ml with the same solvent.

Carbonates: maximum 2.0 per cent, calculated as K₂CO₃, as determined in the assay.

Chlorides (2.4.4): maximum 20 ppm.

Dilute 10 ml of solution S1 to 15 ml with water R.

Phosphates (2.4.11): maximum 20 ppm.

Dilute 5 ml of solution S1 to 100 ml with water R.

Sulphates (2.4.13): maximum 50 ppm determined on solution S2.

Aluminium (2.4.17): maximum 0.2 ppm, if intended for use in the manufacture of haemodialysis solutions.

Prescribed solution. Dissolve 20 g in 100 ml of water R and add 10 ml of acetate buffer solution pH 6.0 R.

Reference solution. Mix 2 ml of aluminium standard solution (2 ppm Al) R, 10 ml of acetate buffer solution pH 6.0 R and 98 ml of water R.

Blank solution. Mix 10 ml of acetate buffer solution pH 6.0 R and 100 ml of water R.

Iron (2.4.9): maximum 10 ppm.

Dilute 5 ml of solution S2 to 10 ml with water R.

Sodium: maximum 1.0 per cent.

**ASSAY**

Dissolve 1.000 g in 50 ml of water R, add 5 ml of sulphuric acid R and dilute to 100.0 ml with water R.

Dilute 1.0 ml of this solution to 10.0 ml with water R.

Reference solutions. Prepare the reference solutions using sodium standard solution (200 ppm Na) R, diluted as necessary with water R.

Source: sodium hollow-cathode lamp.

Wavelength: 589 nm.

Atomisation device: air-acetylene flame.

Heavy metals (2.4.8): maximum 10 ppm.

Dilute 10 ml of solution S2 to 20 ml with water R. 12 ml of the solution complies with test A. Prepare the reference solution using lead standard solution (1 ppm Pb) R.

**STORAGE**

In an airtight, non-metallic container.

**LABELLING**

The label states, where applicable, that the substance is suitable for use in the manufacture of haemodialysis solutions.

**POTASSIUM IODIDE**

Kalii iodidum

**DEFINITION**

Content: 99.0 per cent to 100.5 per cent (dried substance).

**CHARACTERS**

Appearance: white or almost white powder or colourless crystals.

Solubility: very soluble in water, freely soluble in glycerol, soluble in ethanol (96 per cent).

**IDENTIFICATION**

A. Solution S (see Tests) gives the reactions of iodides (2.3.1).

B. Solution S gives the reactions of potassium (2.3.1).

**TESTS**

**Solution S.** Dissolve 10.0 g in carbon dioxide-free water R prepared from distilled water R and dilute to 100 ml with the same solvent.

Appearance of solution. Solution S is clear (2.2.1) and colourless (2.2.2, Method II).

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*See the information section on general monographs (cover pages)*