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Hydroquinone

$C_6H_6O_2$ 110.11

1,4-Benzenediol.

Hydroquinone CAS RN®: 123-31-9; UNII: XV74C1N1AE.

» Hydroquinone contains not less than 99.0 percent and not more than 100.5 percent of $C_6H_6O_2$, calculated on the anhydrous basis.

Packaging and storage—Preserve in tight, light-resistant containers.

USP Reference standards ⟨11⟩—

USP Hydroquinone RS

Identification—

Change to read:

A: ▲*Spectroscopic Identification Tests* ⟨197⟩*, Infrared Spectroscopy: 197K*▲ (CN 1-May-2020) ·

B: Prepare a solution of it in methanol containing approximately 1 mg per mL, and prepare a similar solution of USP Hydroquinone RS. Apply 5 µL of each solution to a suitable thin-layer chromatographic plate (see *Chromatography* ⟨621⟩) coated with a 0.25-mm layer of chromatographic silica gel. Allow the spots to dry, and develop the chromatogram in a solvent system consisting of equal volumes of methanol and chloroform until the solvent front has moved about three-fourths of the length of the plate. Remove the plate from the developing chamber, mark the solvent front, and allow the solvent to evaporate. Heat on a hot plate or under a lamp until spots appear: the R_F value of the principal spot obtained from the solution under test corresponds to that obtained from the Standard solution.

C: A 1 in 40,000 solution in methanol exhibits an absorbance maximum at 293 ± 2 nm.

Melting range ⟨741⟩: between 172° and 174°.

Water Determination, *Method I* ⟨921⟩: not more than 0.5%.

Residue on ignition ⟨281⟩: not more than 0.5%.

Assay—Dissolve about 250 mg of Hydroquinone, accurately weighed, in a mixture of 100 mL of water and 10 mL of 0.1 N sulfuric acid, add 3 drops of diphenylamine TS, and titrate with 0.1 N ceric sulfate VS until a red-violet endpoint is reached. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N ceric sulfate is equivalent to 5.506 mg of $C_6H_6O_2$.

Auxiliary Information - Please check for your question in the FAQs before contacting USP.

Topic/Question	Contact	Expert Committee
HYDROQUINONE	Documentary Standards Support	SM32020 Small Molecules 3
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM32020 Small Molecules 3

Chromatographic Database Information: Chromatographic Database

Most Recently Appeared In:
Pharmacopeial Forum: Volume No. Information currently unavailable

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