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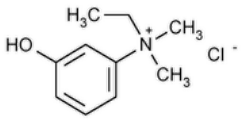
Edrophonium Chloride



$C_{10}H_{16}ClNO$ 201.69

Benzenaminium, *N*-ethyl-3-hydroxy-*N*,*N*-dimethyl-, chloride.

Ethyl(*m*-hydroxyphenyl)dimethylammonium chloride CAS RN®: 116-38-1; UNII: QO611KSM5P.

» Edrophonium Chloride contains not less than 98.0 percent and not more than 100.5 percent of $C_{10}H_{16}ClNO$, calculated on the dried basis.

Packaging and storage—Preserve in well-closed containers.

USP Reference standards ⟨11⟩—

USP Edrophonium Chloride RS

Identification—

Change to read:

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

Change to read:

B: ▲*Spectroscopic Identification Tests* ⟨197⟩*, Ultraviolet-Visible Spectroscopy: 197U*▲ *(CN 1-May-2020)* —

Solution: 50 µg per mL.

Medium: 0.1 N hydrochloric acid.

Absorptivities at 273 nm, calculated on the dried basis, do not differ by more than 2.0%.

C: To 10 mL of a solution (1 in 10) add 1 drop of ferric chloride TS: a violet-blue color is produced.

D: It responds to the tests for *Chloride* ⟨191⟩.

Melting range ⟨741⟩**:** between 165° and 170°, with decomposition.

pH ⟨791⟩**:** between 4.0 and 5.0, in a solution (1 in 10).

Loss on drying ⟨731⟩—Dry it in a suitable vacuum drying tube, using phosphorus pentoxide as the desiccant, for 3 hours: it loses not more than 0.5% of its weight.

Residue on ignition ⟨281⟩**:** not more than 0.1%.

Limit of dimethylaminophenol—Dissolve about 500 mg, accurately weighed, in 5 mL of water in a separator. Add 5 mL of pH 8.0 phosphate buffer (see *Buffer Solutions* in the section *Reagents, Indicators, and Solutions*), and shake. Extract with five 20-mL portions of chloroform, pooling the extracts in a 100-mL volumetric flask, and add chloroform to volume. The absorbance of this solution, determined in a 1-cm cell at 252 nm, with a suitable spectrophotometer, is not more than that of a 1 in 200,000 solution of dimethylaminophenol in chloroform, similarly measured (0.1%).

Assay—Transfer about 175 mg of Edrophonium Chloride, accurately weighed, to a suitable flask, and dissolve in about 20 mL of glacial acetic acid. Add 5 mL of mercuric acetate TS, then add 1 drop of crystal violet TS, and titrate with 0.1 N perchloric acid VS. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N perchloric acid is equivalent to 20.17 mg of $C_{10}H_{16}ClNO$.

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

Topic/Question	Contact	Expert Committee
EDROPHONIUM CHLORIDE	Documentary Standards Support Associate Scientific Liaison.	NBDS2020 Non-botanical Dietary Supplements

Chromatographic Database Information: Chromatographic Database

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