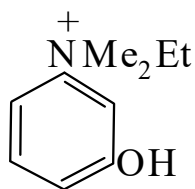




>>>**Entry Name: Edrophonium(1+)**

Synonym(s): *N*-Ethyl-3-hydroxy-*N,N*-dimethylbenzenaminium, 9Cl. Ethyl(*m*-hydroxyphenyl)dimethylammonium, 8Cl. *N*-Ethyl-*N*-(3-hydroxyphenyl)-*N,N*-dimethylammonium. 3-Hydroxyphenyldimethylethylammonium



CAS Registry Number: 312-48-1

Molecular Formula: C₁₀H₁₆NO⁽⁺⁾

Molecular Weight: 166.242

Accurate Mass: 166.123189

Percentage Composition: C 72.25%; H 9.70%; N 8.43%; O 9.62%

>>>**Derivative:** Chloride

Synonym(s): **Edrophonium chloride**, BAN, INN. Antirex. Tensilon

CAS Registry Number: 116-38-1

Type of Compound Code(s): XA3670 XA1300

Molecular Formula: C₁₀H₁₆ClNO

Molecular Weight: 201.695

Accurate Mass: 201.092041

Percentage Composition: C 59.55%; H 8.00%; Cl 17.58%; N 6.94%; O 7.93%

Use/Importance: Anticholinesterase. Cholinergic agent, smooth muscle stimulant, antidote to curare and other non-depolarising muscle relaxants. Used for diagnosis of myasthenia gravis

Melting Point: Mp 162-163°

Sigma: E3256

>>>**Derivative:** Bromide

Synonym(s): **Edrophonium bromide**, BAN. Tensilon. Ro 2-3198

CAS Registry Number: 302-83-0

Type of Compound Code(s): XA1300 XA3670

Molecular Formula: C₁₀H₁₆BrNO

Molecular Weight: 246.146

Accurate Mass: 245.061525

Percentage Composition: C 48.80%; H 6.55%; Br 32.46%; N 5.69%; O 6.50%

Physical Description: Cryst. with bitter taste (EtOH/Et₂O)

Melting Point: Mp 151-152 dec.°

Hazard & Toxicity: LD₅₀ (mus, orl) 600 mg/kg. LD₅₀ (mus, ivn) 9 mg/kg

References:

Randall, L.O. *et al.*, *J. Pharmacol. Exp. Ther.*, 1952, **105**, 7, (*pharmacol*)

Osserman, K.E. *et al.*, *J. Am. Med. Assoc.*, 1952, **150**, 265, (*use*)

U.K. Pat., 1954, 681 656; *CA*, **48**, 8821, (*synth*)

Lands, A.M. *et al.*, *J. Pharmacol. Exp. Ther.*, 1957, **119**, 541, (*pharmacol*)

Back, D.J. *et al.*, *Br. J. Pharmacol.*, 1972, **46**, 355, (*metab*)

Smith, M.H., *Biochem. Med.*, 1974, **10**, 236, (*pharmacol*)

Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 1115

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, EAE600; TAL490