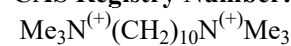




>>Entry Name: Decamethonium(2+)

Synonym(s): *N,N,N,N',N',N'*-Hexamethyl-1,10-decanediaminium, 9Cl. Decamethylenebis[trimethylammonium], 8Cl. Many other names

CAS Registry Number: 156-74-1



Molecular Formula: $\text{C}_{16}\text{H}_{38}\text{N}_2^{2(+)}$

Molecular Weight: 258.49

Accurate Mass: 258.303498

Percentage Composition: C 74.35%; H 14.82%; N 10.84%

>>Derivative: Dibromide

Synonym(s): Decamethonium bromide, INN. Syncurine. Decacuran

CAS Registry Number: 541-22-0

Molecular Formula: $\text{C}_{16}\text{H}_{38}\text{Br}_2\text{N}_2$

Molecular Weight: 418.298

Accurate Mass: 416.18017

Percentage Composition: C 45.94%; H 9.16%; Br 38.20%; N 6.70%

Biological Use/Importance: Nicotinic channel blocker. Potassium channel (K_{SR}) blocker. Skeletal muscle relaxant

Physical Description: Cryst. (MeOH/Me₂CO)

Melting Point: Mp 268-270 dec.°

Solubility: Insol. Et₂O

Hazard & Toxicity: LD₅₀ (mus, orl) 190 mg/kg. LD₅₀ (mus, ivn) 0.63 mg/kg

Aldrich: 28547-1

Fluka: 30520

Rare Chemicals Library: S57396-5

Sigma: D1260

>>Derivative: Diiodide

Synonym(s): Decamethonium iodide, BAN. Eulissin A

CAS Registry Number: 1420-40-2

Molecular Formula: $\text{C}_{16}\text{H}_{38}\text{I}_2\text{N}_2$

Molecular Weight: 512.299

Accurate Mass: 512.112444

Percentage Composition: C 37.51%; H 7.48%; I 49.54%; N 5.47%

Biological Use/Importance: Nicotinic channel blocker. Muscle relaxant

Development Status: Not marketed

Melting Point: Mp 243-246°

Hazard & Toxicity: LD₅₀ (mus, orl) 115 mg/kg. LD₅₀ (mus, ivn) 0.838 mg/kg

Aldrich: 37494-6

Fluka: 30530

Rare Chemicals Library: S71436-4

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 618B, (*nmr*)

Blomquist, A.T. *et al.*, *J.A.C.S.*, 1959, **81**, 678, (*synth*)

v. Riezen, H., *Eur. J. Pharmacol.*, 1968, **5**, 37, (*pharmacol*)

Sidenko, Z.S. *et al.*, *Khim.-Farm. Zh.*, 1968, **2**, 15, (*synth*)

Broen, C.C., *Acta Pharmacol. Toxicol.*, Suppl., 1972, 31, (*metab*)

Dufourcq, J. *et al.*, *FEBS Lett.*, 1972, **22**, 205, (*pmr*)

Shabanowitz, J. *et al.*, *Biomed. Mass Spectrom.*, 1975, **2**, 164, (*ms*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th edn., Akademie-Verlag, 1987, 4219, (*synonyms*)

Martindale, *The Extra Pharmacopoeia*, 30th edn., Pharmaceutical Press, 1993, 1204

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DAF600; DAF800