



>>Entry Name: Ethylhexadecyldimethylammonium(1+)

Synonym(s): Cetylethyldimethylammonium. *N*-Ethyl-*N,N*-dimethyl-1-hexadecanaminium, 9Cl

CAS Registry Number: 10328-33-3

Related CAS Registry Numbers(s): 13264-41-0 95459-76-0 100173-89-5 101904-95-4

$\text{H}_3\text{C}(\text{CH}_2)_{14}\text{CH}_2\text{N}^{(+)}(\text{Et})\text{Me}_2$

Molecular Formula: $\text{C}_{20}\text{H}_{44}\text{N}^{(+)}$

Molecular Weight: 298.574

Accurate Mass: 298.347374

Percentage Composition: C 80.46%; H 14.85%; N 4.69%

>>Derivative: Bromide

Synonym(s): Mecetronium bromide. Cetylclde. Radiol

CAS Registry Number: 124-03-8

Molecular Formula: $\text{C}_{20}\text{H}_{44}\text{BrN}$

Molecular Weight: 378.478

Accurate Mass: 377.28571

Percentage Composition: C 63.47%; H 11.72%; Br 21.11%; N 3.70%

Use/Importance: Used as 0.1*M* aq. soln. for ion-flotation of Cd, Zn, Cu, Ni from aq. soln. Antiseptic

Physical Description: Cryst.

Solubility: Sol. H_2O

Hazard & Toxicity: LD₅₀ (rat, orl) 500 mg/kg

Aldrich: 22899-0

Fluka: 4015

Sigma: C5335

>>Derivative: Ethyl sulfate

Synonym(s): Mecetronium ethylsulfate, BAN, USAN. **Mecetronium etilsulfate**, INN. Querton 16 ES. Sterilium

CAS Registry Number: 3006-10-8

Molecular Formula: $\text{C}_{22}\text{H}_{49}\text{NO}_4\text{S}$

Molecular Weight: 423.699

Accurate Mass: 423.338229

Percentage Composition: C 62.37%; H 11.66%; N 3.31%; O 15.10%; S 7.57%

Use/Importance: Antiseptic

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 395A, (ir)

Aldrich Library of NMR Spectra, 2nd edn., 1983, **1**, 344B, (nmr)

Lewison, E.F., *Arch. Surg. (Chicago)*, 1950, **60**, 865

U.S. Pat., 1951, 2 541 248; *CA*, **45**, 4894g

U.S. Pat., 1963, *Robinette Res*, 3 113 956; *CA*, **60**, 5335d

McDonald, C.W. *et al.*, *Microchem. J.*, 1979, **24**, 553; 1981, **26**, 80; 1982, **27**, 240, (use)

Martindale, The Extra Pharmacopoeia, 30th edn., *Pharmaceutical Press*, 1993, 799

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., *Van Nostrand Reinhold*, 1992, EKN500