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Product Information

Tetraethylammonium chloride

Product Number **T2265**
Store at Room Temperature

Product Description

Molecular Formula: $C_8H_{20}NCl$
Molecular Weight: 165.7
CAS Number: 56-34-8
Synonym: TEA chloride

Tetraethylammonium chloride is a quaternary alkylammonium compound that is a ganglion blocking agent and used widely in neuroscience research.¹ TEA chloride has been used in studies of K^+ channel modulation and in K^+ and Ca^{+2} -sensitive Cl^- currents, in such systems as basket cell axons of rat cerebella and *Periplaneta americana* pacemaker neurosecretory cells.^{2,3} Glycocholate uptake in human hepatoblastoma HepG2 cells under varying intracellular pH has been investigated with TEA-chloride.⁴

A capillary electrophoresis technique for the analysis of fluorophore-derivatized fatty acids incorporates TEA-chloride as a charge carrier.⁵ A study of the permanganate oxidation of free nucleotide bases in aqueous TEA-chloride solution has been reported.⁶ The compound tetraethylammonium 7-dimethylsulfanyl-nido-dodecahydroundecaborate has been prepared with TEA-chloride as a precipitant.⁷

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (50 mg/ml), yielding a clear, colorless to faint yellow solution. It is freely soluble in ethanol, chloroform and acetone.¹

Storage/Stability

A 10% solution of this product has a pH of 6.48. The pH of the 10% solution is not changed by heating for 28 hours at 95 °C.²

References

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4. Marin, J. J., et al., Sensitivity of bile acid transport by organic anion-transporting polypeptides to intracellular pH. *Biochim. Biophys. Acta*, **1611(1-2)**, 249-257 (2003).
5. Gallaher, D. L., Jr., and Johnson, M. E., Nonaqueous capillary electrophoresis of fatty acids derivatized with a near-infrared fluorophore. *Anal. Chem.*, **72(9)**, 2080-2086 (2000).
6. Bui, C. T., and Cotton, R. G., Comparative study of permanganate oxidation reactions of nucleotide bases by spectroscopy. *Bioorg. Chem.*, **30(2)**, 133-137 (2002).
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