



>>Entry Name: Choline

ENTRY UNDER REVIEW

Synonym(s): 2-Hydroxy-*N,N,N*-trimethylethanaminium(1+), 9Cl. (2-Hydroxyethyl)trimethylammonium. Bilinearine. Sincalin. Sinkalin. **Amanitin**‡. Araquine. Arachine

CAS Registry Number: 62-49-7

Related CAS Registry Numbers(s): 87-67-2 23038-04-2 55357-38-5 64681-08-9



Molecular Formula: C₅H₁₄NO⁽⁺⁾

Molecular Weight: 104.172

Accurate Mass: 104.107539

Percentage Composition: C 57.65%; H 13.55%; N 13.45%; O 15.36%

Biological Source: Occurs free and combined in many animal and vegetable prods., e.g. bile, brain, yolk of egg, hops, belladonna, strophanthus, and the seeds, leaves and stems of many other plants. Constit. of Lecithin. Acetylcholine precursor

Use/Importance: Lipotropic agent. Nutritional supplement

Fluka: 26972

Sigma: C9154

>>Derivative: Hydroxide

CAS Registry Number: 123-41-1

Molecular Formula: C₅H₁₅NO₂

Molecular Weight: 121.179

Accurate Mass: 121.110279

Percentage Composition: C 49.56%; H 12.48%; N 11.56%; O 26.41%

Physical Description: Syrup, cryst. with difficulty

Solubility: V. sol. H₂O, EtOH; insol. Et₂O

Other Data: Strong base, absorbs CO₂ from air. Forms cryst. addn. compds. with H₂PtCl₆ etc.

Aldrich: 33301-8

>>Derivative: Chloride

Synonym(s): Choline chloride, INN

CAS Registry Number: 67-48-1

Molecular Formula: C₅H₁₄ClNO

Molecular Weight: 139.624

Accurate Mass: 139.076391

Percentage Composition: C 43.01%; H 10.11%; Cl 25.39%; N 10.03%; O 11.46%

Use/Importance: Lipotropic agent used to treat liver disorders

Physical Description: Deliquescent cryst.

Hazard & Toxicity: LD₅₀ (rat, orl) 3400 mg/kg

Aldrich: C7970-0

Fluka: 26980

Sigma: C1879

>>Derivative: Iodide

CAS Registry Number: 17773-10-3

Molecular Formula: C₅H₁₄I NO

Molecular Weight: 231.076

Accurate Mass: 231.012012

Percentage Composition: C 25.99%; H 6.11%; I 54.92%; N 6.06%; O 6.92%

Melting Point: Mp 272-274°

Aldrich: C7971-9

Sigma: C2129