



>>Entry Name: Sultaines

Synonym(s): Alkyldimethyl(3-sulfopropyl)ammonium betaine



Use/Importance: Detergents/surfactants; research applications include protein solubilisation, capillary zone electrophoresis and others

>>Variant: C-8 Sultaine

Synonym(s): *N,N*-Dimethyl-*N*-(3-sulfopropyl)-1-octanaminium hydroxide inner salt, 9Cl. Dimethyloctyl(3-sulfopropyl)ammonium betaine

CAS Registry Number: 15178-76-4

Molecular Formula: C₁₃H₂₉NO₃S

Molecular Weight: 279.443

Accurate Mass: 279.186814

Percentage Composition: C 55.88%; H 10.46%; N 5.01%; O 17.18%; S 11.47%

Use/Importance: Zwitterionic detergent employed in capillary zone electrophoresis

Melting Point: Mp 212-215°

>>Variant: C-10 Sultaine

Synonym(s): *N,N*-Dimethyl-*N*-(3-sulfopropyl)-1-decanaminium hydroxide inner salt, 9Cl. Decyldimethyl(3-sulfopropyl)ammonium betaine

CAS Registry Number: 15163-36-7

Molecular Formula: C₁₅H₃₃NO₃S

Molecular Weight: 307.497

Accurate Mass: 307.218114

Percentage Composition: C 58.59%; H 10.82%; N 4.56%; O 15.61%; S 10.43%

Use/Importance: Zwitterionic detergent

>>Variant: C-12 Sultaine

Synonym(s): *N,N*-Dimethyl-*N*-(3-sulfopropyl)-1-dodecanaminium hydroxide inner salt, 9Cl. Dodecyldimethyl(3-sulfopropyl)ammonium betaine

Molecular Formula: C₁₇H₃₇NO₃S

Molecular Weight: 335.55

Accurate Mass: 335.249414

Percentage Composition: C 60.85%; H 11.11%; N 4.17%; O 14.30%; S 9.56%

Use/Importance: Zwitterionic surfactant used in studying photosystems and virosomes. Enzyme solubiliser that can be easily removed by dialysis

Melting Point: Mp 245-247°

Other: Serva: 20761

>>Variant: C-14 Sultaine

Synonym(s): *N,N*-Dimethyl-*N*-(3-sulfopropyl)-1-tetradecanaminium hydroxide inner salt. Dimethyl(3-sulfopropyl)tetradecylammonium betaine

CAS Registry Number: 14933-09-6

Molecular Formula: C₁₉H₄₁NO₃S

Molecular Weight: 363.604

Accurate Mass: 363.280714

Percentage Composition: C 62.76%; H 11.37%; N 3.85%; O 13.20%; S 8.82%

Use/Importance: Zwitterionic detergent employed in solubilising membrane proteins

Melting Point: Mp 246-248°

>>Variant: C-16 Sultaine

Synonym(s): *N,N*-Dimethyl-*N*-(3-sulfopropyl)-1-hexadecanaminium hydroxide inner salt, 9Cl. Hexadecyldimethyl(3-sulfopropyl)ammonium betaine. 3-(Dimethylpalmitylammonio)propanesulfonate

CAS Registry Number: 14933-08-5

Molecular Formula: C₂₁H₄₅NO₃S

Molecular Weight: 391.657

Accurate Mass: 391.312014

Percentage Composition: C 64.40%; H 11.58%; N 3.58%; O 12.26%; S 8.19%

Use/Importance: Zwitterionic surfactant useful for solubilising microsomal proteins and cardiac 5'-nucleotides

Melting Point: Mp 240-242° (dec.)