



>>Entry Name: 1-Dodecyl sulfate

ENTRY UNDER REVIEW

Synonym(s): Monododecyl sulfate, 9Cl. Lauryl sulfate

CAS Registry Number: 151-41-7

Related CAS Registry Numbers(s): 151-21-3 2044-56-6 2235-54-3 3097-08-3 4706-78-9 7423-32-7

Type of Compound Code(s): PS8300 PS8350 XA4140

$\text{H}_3\text{C}(\text{CH}_2)_{11}\text{OSO}_2\text{OH}$

Molecular Formula: $\text{C}_{12}\text{H}_{26}\text{O}_4\text{S}$

Molecular Weight: 266.401

Accurate Mass: 266.15518

Percentage Composition: C 54.10%; H 9.84%; O 24.02%; S 12.04%

Use/Importance: Salts used as detergents and surfactants. Used as 1% aq. soln. in photometric detns. of metals (with some azo reagents)

Physical Description: Cryst.

Solubility: Sol. H_2O

Hazard & Toxicity: LD_{50} (rat, orl) 1300 mg/kg

>>Derivative: Na salt

Synonym(s): Sodium lauryl sulfate. Sodium dodecyl sulfate. SDS. Numerous proprietary names

CAS Registry Number: 151-21-3

Type of Compound Code(s): WC5100 WC4400 WC2400

Use/Importance: Surfactant, emulsifying agent. Used in emulsion polym. Used in separation of proteins and lipids by electrophoresis

Physical Description: Flakes (EtOH)

Melting Point: Mp 204-207°

Aldrich: 85192-2

Fluka: 71730

Sigma: L0269

Supelco: R42-2832

>>Derivative: Glycine salt

Melting Point: Mp 110°

>>Derivative: Urea salt

Melting Point: Mp 110°

References:

Aldrich Library of NMR Spectra, 2nd edn., 1983, **2**, 805A, (nmr)

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Sadtler Standard Proton NMR Spectra, 16888, (Na salt, pmr)

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Schulten, H.R. *et al.*, *Anal. Chim. Acta*, 1976, **87**, 103, (Na salt, ms)

Jaeger, D.A. *et al.*, *J.O.C.*, 1977, **42**, 3298, (synth)

Hung, S.C. *et al.*, *Talanta*, 1982, **29**, 85, (detn, Ag)

Tan Zhe *et al.*, *Talanta*, 1984, **31**, 624, (detn, Zn)

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Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1988, **13**, 281

Handbook of Pharmaceutical Excipients, 2nd edn., (eds. Wade, A. *et al.*), American Pharmaceutical Association/Pharmaceutical Press, 1994, 448-450

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Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, MRH250; SOM500; SIB600