



>>Entry Name: 1-Dodecanesulfonic acid, 9CI

CAS Registry Number: 1510-16-3

Related CAS Registry Numbers(s): 2386-53-0

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

Molecular Formula: $\text{C}_{12}\text{H}_{26}\text{O}_3\text{S}$

Molecular Weight: 250.402

Accurate Mass: 250.160265

Percentage Composition: C 57.56%; H 10.47%; O 19.17%; S 12.81%

Use/Importance: Detergent

Melting Point: Mp 49-52°

Boiling Point: Bp_{0.1} 220°

>>Derivative: Me ester

CAS Registry Number: 7560-61-4

Molecular Formula: $\text{C}_{13}\text{H}_{28}\text{O}_3\text{S}$

Molecular Weight: 264.428

Accurate Mass: 264.175915

Percentage Composition: C 59.05%; H 10.67%; O 18.15%; S 12.13%

Physical Description: Cryst. (Me_2CO)

Melting Point: Mp 34-34.5°

Boiling Point: Bp_{0.3} 130-133°

>>Derivative: Et ester

Molecular Formula: $\text{C}_{14}\text{H}_{30}\text{O}_3\text{S}$

Molecular Weight: 278.455

Accurate Mass: 278.191565

Percentage Composition: C 60.39%; H 10.86%; O 17.24%; S 11.52%

Boiling Point: Bp_{0.3} 132-135°

>>Derivative: Chloride

Molecular Formula: $\text{C}_{12}\text{H}_{25}\text{ClO}_2\text{S}$

Molecular Weight: 268.847

Accurate Mass: 268.126377

Percentage Composition: C 53.61%; H 9.37%; Cl 13.19%; O 11.90%; S 11.93%

Melting Point: Mp 42-43°

References:

Klamann, D. *et al.*, *Monatsh. Chem.*, 1952, **83**, 463, (*synth*)

Showell, J.S. *et al.*, *J.O.C.*, 1962, **27**, 2853, (*synth*)

Nerasin, A. *et al.*, *J. Appl. Polym. Sci.*, 1965, **9**, 1653, (*ir*)