



>>Entry Name: Sulfonyldiacetic acid

Synonym(s): 2,2'-Sulfonylbisacetic acid, 9CI. Sulfonebisacetic acid

CAS Registry Number: 123-45-5

HOOCCH₂SO₂CH₂COOH

Molecular Formula: C₄H₆O₆S

Molecular Weight: 182.154

Accurate Mass: 181.98851

Percentage Composition: C 26.38%; H 3.32%; O 52.70%; S 17.60%

Physical Description: Plates (H₂O)

Melting Point: Mp 183-184°

pKa Value: pK_{a1} 1.82; pK_{a2} 2.7 (25°)

>>Derivative: Di-Me ester

CAS Registry Number: 16002-30-5

Molecular Formula: C₆H₁₀O₆S

Molecular Weight: 210.207

Accurate Mass: 210.01981

Percentage Composition: C 34.28%; H 4.79%; O 45.67%; S 15.25%

Physical Description: Plates (H₂O)

Melting Point: Mp 115-116°

>>Derivative: Di-Et ester

CAS Registry Number: 29771-87-7

Molecular Formula: C₈H₁₄O₆S

Molecular Weight: 238.261

Accurate Mass: 238.05111

Percentage Composition: C 40.33%; H 5.92%; O 40.29%; S 13.46%

Physical Description: Reagent for primary amines

Boiling Point: Bp₁₀ 185-187°. Bp₂ 164-167°

Refractive Index: n_D²⁸ 1.4464

References:

Lovén, J.M., *Ber.*, 1884, **17**, 2818

Alden, J.P., *J.A.C.S.*, 1934, **56**, 413

Balaih, V., *J.C.S.*, 1954, 3068

Knittel, D., *J. Appl. Electrochem.*, 1973, **3**, 291