



>>Entry Name: Ethanesulfonic acid, 9CI

Synonym(s): Ethylsulfonic acid. Sulfoethane

CAS Registry Number: 594-45-6

$\text{H}_3\text{CCH}_2\text{SO}_2\text{OH}$

Molecular Formula: $\text{C}_2\text{H}_6\text{O}_3\text{S}$

Molecular Weight: 110.134

Accurate Mass: 110.003765

Percentage Composition: C 21.81%; H 5.49%; O 43.58%; S 29.12%

Use/Importance: Used to make surface-active agents, etc.

Physical Description: Oil

Melting Point: Fp -17°

Boiling Point: Bp₂ 136-140°. Bp₁ 123°

Density: d^0 1.357

Other Data: Very stable; forms hydrated salts with metals

Aldrich: 47155-0

Fluka: 2424

>>Derivative: Na salt

CAS Registry Number: 5324-47-0

Melting Point: Mp 267-270 dec.°

Aldrich: 35910-6

Fluka: 2430

>>Derivative: Me ester

CAS Registry Number: 1912-28-3

Molecular Formula: $\text{C}_3\text{H}_8\text{O}_3\text{S}$

Molecular Weight: 124.16

Accurate Mass: 124.019415

Percentage Composition: C 29.02%; H 6.49%; O 38.66%; S 25.83%

Physical Description: Oil

Boiling Point: Bp 197.5-200.5°. Bp₂₄ 100-101°

Hazard & Toxicity: Shows mutagenic props. Exp. reprod. effects

Sigma: M3671

>>Derivative: Et ester

CAS Registry Number: 1912-30-7

Molecular Formula: $\text{C}_4\text{H}_{10}\text{O}_3\text{S}$

Molecular Weight: 138.187

Accurate Mass: 138.035065

Percentage Composition: C 34.77%; H 7.29%; O 34.73%; S 23.20%

Boiling Point: Bp 213.5°. Bp₂₅ 121.5°

>>Derivative: Chloride

CAS Registry Number: 594-44-5

Molecular Formula: $\text{C}_2\text{H}_5\text{ClO}_2\text{S}$

Molecular Weight: 128.579

Accurate Mass: 127.969877

Percentage Composition: C 18.68%; H 3.92%; Cl 27.57%; O 24.89%; S 24.94%

Physical Description: Oil

Boiling Point: Bp 171° (177.5°). Bp₁₃ 65°

Solubility: Sol. CH_2Cl_2

Density: $d^{22.5}$ 1.357

Aldrich: 23488-5

Fluka: 2420

Sigma: E1880