



>>Entry Name: 1,1,2,2,3,3,4,4,4-Nonafluoro-1-butanesulfonic acid, 9CI

Synonym(s): Perfluoro-1-butanesulfonic acid

CAS Registry Number: 375-73-5

F3CCF2CF2CF2SO3H

Molecular Formula: C4HF9O3S

Molecular Weight: 300.102

Accurate Mass: 299.950267

Percentage Composition: C 16.01%; H 0.34%; F 56.98%; O 15.99%; S 10.69%

Use/Importance: One of the strongest known acids, with synthetic applications

Physical Description: Liq.

Boiling Point: Bp 210-212°. Bp₁₅ 120-130°

>>Derivative: Ag salt

CAS Registry Number: 116831-41-5

Melting Point: Mp 250°

>>Derivative: Me ester

CAS Registry Number: 6401-03-2

Molecular Formula: C5H3F9O3S

Molecular Weight: 314.128

Accurate Mass: 313.965917

Percentage Composition: C 19.12%; H 0.96%; F 54.43%; O 15.28%; S 10.21%

Physical Description: Liq.

Melting Point: Mp -13.5°

Boiling Point: Bp 155.1°. Bp₄₀ 75°

Fluka: 77246

>>Derivative: Trifluoromethyl ester

CAS Registry Number: 79410-57-4

Molecular Formula: C5F12O3S

Molecular Weight: 368.1

Accurate Mass: 367.937651

Percentage Composition: C 16.31%; F 61.93%; O 13.04%; S 8.71%

Physical Description: Liq.

Melting Point: Mp -78.9°

Boiling Point: Bp 93.6°

>>Derivative: Ph ester

CAS Registry Number: 25628-11-9

Molecular Formula: C10H5F9O3S

Molecular Weight: 376.199

Accurate Mass: 375.981567

Percentage Composition: C 31.93%; H 1.34%; F 45.45%; O 12.76%; S 8.52%

Physical Description: Liq.

Boiling Point: Bp₁₅ 100-101°. Bp₁₂ 99°

>>Derivative: Trimethylsilyl ester

>>Derivative: Anhydride

CAS Registry Number: 36913-91-4

Molecular Formula: C8F18O5S2

Molecular Weight: 582.188

Accurate Mass: 581.889969

Percentage Composition: C 16.50%; F 58.74%; O 13.74%; S 11.02%

Physical Description: Liq.

Boiling Point: Bp₁₄ 84°

>>Derivative: Fluoride