



>>Entry Name: [(Trimethylsilyl)oxy]acetic acid, 9CI

CAS Registry Number: 41625-51-8

Related CAS Registry Numbers(s): 69889-20-9 80287-79-2

Me3SiOCH2COOH

Molecular Formula: C₅H₁₂O₃Si

Molecular Weight: 148.234

Accurate Mass: 148.055572

Percentage Composition: C 40.51%; H 8.16%; O 32.38%; Si 18.95%

>>Derivative: Butyl ester

CAS Registry Number: 87826-84-4

Molecular Formula: C₉H₂₀O₃Si

Molecular Weight: 204.341

Accurate Mass: 204.118172

Percentage Composition: C 52.90%; H 9.86%; O 23.49%; Si 13.74%

Source/Synthesis: Synth. from HOCH₂COO(CH₂)₃CH₃ + *N*-(trimethylsilyl)imidazole

Boiling Point: Bp₁₂ 75-80°

>>Derivative: Trimethylsilyl ester

CAS Registry Number: 33581-77-0

Molecular Formula: C₈H₂₀O₃Si₂

Molecular Weight: 220.415

Accurate Mass: 220.095099

Percentage Composition: C 43.59%; H 9.15%; O 21.78%; Si 25.48%

Source/Synthesis: Synth. from HOCH₂COOH + (Me₃Si)₂NH/Py

Boiling Point: Bp₁₂ 78-80°

>>Derivative: Nitrile

Synonym(s): (2-Cyanomethoxy)trimethylsilane

CAS Registry Number: 40326-15-6

Molecular Formula: C₅H₁₁NOSi

Molecular Weight: 129.234

Accurate Mass: 129.060991

Percentage Composition: C 46.47%; H 8.58%; N 10.84%; O 12.38%; Si 21.73%

Source/Synthesis: Synth. from 1,3,5-trioxane + Me₃SiCN + ZnI₂

Boiling Point: Bp 148-149°

References:

Pola, J. *et al.*, *Coll. Czech. Chem. Comm.*, 1977, **42**, 1540-1550, (*trimethylsilyl ester, ir, pmr*)

Wissner, A., *J.O.C.*, 1979, **44**, 4617-4622, (*trimethylsilyl ester, synth, pmr*)

Ladner, W., *Chem. Ber.*, 1983, **116**, 3413-3426, (*butyl ester, synth, pmr, cmr*)

Lycka, A. *et al.*, *Coll. Czech. Chem. Comm.*, 1986, **51**, 2582-2589, (*trimethylsilyl ester, cmr, O-17 nmr, Si-29 nmr*)

Cunico, R.F. *et al.*, *J.O.C.*, 1992, **57**, 1202-1205, (*nitrile, synth*)