



>>Entry Name: Trimethyl-2-propynylsilane, 9CI

Synonym(s): 3-(Trimethylsilyl)propyne. Propargyltrimethylsilane

CAS Registry Number: 13361-64-3

$\text{Me}_3\text{SiCH}_2\text{C}\equiv\text{CH}$

Molecular Formula: $\text{C}_6\text{H}_{12}\text{Si}$

Molecular Weight: 112.246

Accurate Mass: 112.070827

Percentage Composition: C 64.20%; H 10.78%; Si 25.02%

Source/Synthesis: Synth. from $\text{HC}\equiv\text{CCH}_2\text{MgBr}$ and Me_3SiCl

Use/Importance: Reagent for synth. of α -allenyl alcohols; reacts with acetals in presence of $\text{TiCl}_4 \rightarrow \alpha$ -allenyl ethers; carbometallated by $\text{Me}_3\text{Al/Cp}_2\text{ZrCl}_2$; reacts with $\text{ArI}(\text{OAc})_2$ in presence of $\text{BF}_3\cdot\text{Et}_2\text{O}$ to give a 2-propargylated iodobenzene after Claisen rearrangement

Physical Description: Liq.

Boiling Point: Bp_{720} 89-90°

Density: d_4^{20} 0.753

Refractive Index: n_D^{20} 1.4130

Aldrich: 37626-4

Fluka: 81844

References:

- Aldrich Library of ^{13}C and ^1H FT NMR Spectra*, 1992, **3**, 716C, (nmr)
Bock, H. *et al.*, *J.C.S.(B)*, 1968, 1158, (ir, ms, pmr)
Jaffe, F., *J. Organomet. Chem.*, 1970, **23**, 53, (synth)
Slutsky, J. *et al.*, *J.A.C.S.*, 1973, **95**, 8678, (ir, pmr, synth)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1982, **10**, 380, (use)
Negishi, E. *et al.*, *Tet. Lett.*, 1982, **23**, 27, (use, carbometallation)
Pornet, J. *et al.*, *Organometallics*, 1985, **4**, 333, (use, reaction with acetals)
Nativi, C. *et al.*, *Tetrahedron*, 1989, **45**, 1131, (synth, pmr)
Ochiai, M. *et al.*, *J.A.C.S.*, 1991, **113**, 1319, (use, reaction with $\text{ArI}(\text{OAc})_2$)