



>>Entry Name: Triphenylsilane, 9CI

CAS Registry Number: 789-25-3

Ph₃SiH

Molecular Formula: C₁₈H₁₆Si

Molecular Weight: 260.41

Accurate Mass: 260.102127

Percentage Composition: C 83.02%; H 6.19%; Si 10.79%

Source/Synthesis: Synth. from HSiCl₃ and PhMgBr

Use/Importance: Commercially available. Reduces org. halides; esters reduced to hydrocarbons in presence of a radical source; hydrosilylates alkynes, alkenes in presence of Pt, Pd, Rh complex catalysts

Physical Description: Cryst.

Melting Point: Mp 44-47°

Boiling Point: Bp₂ 152°

Aldrich: 14850-4

Fluka: 93130

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **3**, 702B, (nmr)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1120D, (ir)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1665B, (ir)

Schott, G. *et al.*, *Z. Anorg. Allg. Chem.*, 1960, **306**, 180, (synth)

Kessler, G. *et al.*, *Z. Anorg. Allg. Chem.*, 1966, **342**, 53, (synth, ir)

Smith, A.L., *Spectrochim. Acta A*, 1968, **24**, 695, (ir)

Hazeldine, R.N. *et al.*, *J.C.S.(A)*, 1969, 683, (use, hydrosilylation of alkenes)

Kudryavtsev, R.V. *et al.*, *Zh. Org. Khim.*, 1974, **10**, 908, (ms)

Allemand, J. *et al.*, *Cryst. Struct. Commun.*, 1979, **8**, 927; *CA*, **92**, 32296, (cryst struct)

Kusumoto, T. *et al.*, *Chem. Lett.*, 1985, 1405, (use, hydrosilylation of alkynes)

Sano, H. *et al.*, *Chem. Lett.*, 1986, 77, (use, redn of esters)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1986, **12**, 209, (use)

Lesage, M. *et al.*, *J.O.C.*, 1990, **55**, 5413, (use)

Lewis, L.N. *et al.*, *Organometallics*, 1991, **10**, 3750, (use)