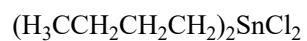




>>Entry Name: Dibutyldichlorostannane, 9Cl

Synonym(s): Dibutyltin dichloride

CAS Registry Number: 683-18-1



Molecular Formula: $\text{C}_8\text{H}_{18}\text{Cl}_2\text{Sn}$

Molecular Weight: 303.846

Accurate Mass: 301.980754

Percentage Composition: C 31.62%; H 5.97%; Cl 23.34%; Sn 39.07%

Source/Synthesis: Synth. from Bu_4Sn and SnCl_4

Use/Importance: Polym. catalyst; catalyses condensation of cyclic ketones with a primary amine to give an imine; used for transmetallation of Grignard reagents

Melting Point: Mp 43° (39-41 $^\circ$)

Boiling Point: Bp₁₀ 135° (Bp₅ 153°)

Solubility: Sol. hexane, Et_2O , THF

Hazard & Toxicity: Fl. p. 168° . LD₅₀ (rat, orl) 112 mg/kg

Aldrich: 20549-4

Fluka: 34920

Other: Gelest SND3250

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1145D, (ir)

Aldrich Library of NMR Spectra, 2nd edn., 1983, **2**, 1022A, (nmr)

Neumann, W.P. *et al.*, *Annalen*, 1963, **663**, 11, (synth)

Org. Synth., *Coll. Vol.*, 4, 1963, 258, (use, transmetallation)

Geissler, H. *et al.*, *J. Organomet. Chem.*, 1968, **11**, 85, (ir)

Mitchell, T.N. *et al.*, *J. Organomet. Chem.*, 1973, **59**, 189, (cmr)

Kennedy, J.D. *et al.*, *Rev. Silicon, Germanium, Tin, Lead Compd.*, 1974, **1**, 235, (nmr)

Fish, R.H. *et al.*, *Tet. Lett.*, 1974, 1303, (ms)

Petrosyan, V.S., *Prog. Nucl. Magn. Reson. Spectrosc.*, 1977, **11**, 115, (nmr)

Lippmann, E.T. *et al.*, *J.A.C.S.*, 1978, **100**, 1929, (nmr)

Stetin, C. *et al.*, *Synth. Commun.*, 1982, **12**, 495, (use, reaction of cyclic ketones)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1984, **11**, 161, (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DDY200