



>>Entry Name: (Dimethylamino)trimethylstannane

Synonym(s): Pentamethylstannanamine, 10Cl. Dimethyl(trimethylstannyl)amine

CAS Registry Number: 993-50-0

$\text{Me}_3\text{SnNMe}_2$

Molecular Formula: $\text{C}_5\text{H}_{15}\text{NSn}$

Molecular Weight: 207.89

Accurate Mass: 207.022649

Percentage Composition: C 28.89%; H 7.27%; N 6.74%; Sn 57.10%

Source/Synthesis: Synth. from Me_3SnCl and LiNMe_2

Use/Importance: Reacts with a wide range of weak protic reagents, dehydrohalogenating agent; converts esters to amides, vinyl acetate to vinyl dimethylamine

Physical Description: Liq.

Boiling Point: Bp 126°

Density: d_4^{20} 1.218

Refractive Index: n_D^{20} 1.4572

Other Data: Hydrol. readily

Hazard & Toxicity: Fl. p. 1°. V. toxic

Aldrich: 42928-7

Other: Gelest SND3610

References:

- Jones, K. *et al.*, *J.C.S.*, 1965, 1944, (*synth*)
Cardin, D.J. *et al.*, *Chem. Comm.*, 1967, 1034, (*use, dehydrochlorination*)
Dalton, R.F. *et al.*, *Inorg. Nucl. Chem. Lett.*, 1969, **5**, 785, (*Mössbauer*)
Bishop, M.E. *et al.*, *Inorg. Chem.*, 1977, **16**, 1749, (*Mössbauer*)
Marchand, A. *et al.*, *J. Organomet. Chem.*, 1978, **156**, 341, (*ir, Raman*)
Molloy, K.C. *et al.*, *Inorg. Chem.*, 1982, **21**, 3709, (*Mössbauer*)
Pandolfo, L. *et al.*, *Gazz. Chim. Ital.*, 1986, **116**, 471, (*reactions*)
Haenssger, D. *et al.*, *J. Organomet. Chem.*, 1986, **317**, 159, (*reactions*)
Pereyre, M. *et al.*, *Tin in Organic Synthesis*, Butterworths, 1987, (*rev, uses*)