



>>Entry Name: Dibutylbis(dodecylthio)stannane, 9CI

Synonym(s): Dibutyltin bis(dodecyl sulfide)

CAS Registry Number: 1185-81-5

$(\text{H}_3\text{CCH}_2\text{CH}_2\text{CH}_2)_2\text{Sn}[\text{S}(\text{CH}_2)_{11}\text{CH}_3]_2$

Molecular Formula: $\text{C}_{32}\text{H}_{68}\text{S}_2\text{Sn}$

Molecular Weight: 635.731

Accurate Mass: 634.37844

Percentage Composition: C 60.46%; H 10.78%; S 10.09%; Sn 18.67%

Source/Synthesis: Synth. from $(\text{Bu}_2\text{SnO})_n + \text{C}_{12}\text{H}_{25}\text{SH}$ in refluxing toluene for 15h

Use/Importance: Heat stabiliser for rigid PVC

Physical Description: Colourless liq.

Boiling Point: $\text{Bp}_{0.3}$ 122-123°

Solubility: Sol. toluene, heptane

Density: d_4^{20} 1.05

Refractive Index: n_D^{20} 1.5177

Hazard & Toxicity: Fl.p. >204°

Other: Gelest SND2800

References:

Ayrey, G. *et al.*, *J. Polym. Sci., Polym. Chem. Ed.*, 1972, **10**, 725-735, (*synth, props*)

Poller, R.C. *et al.*, *J. Organomet. Chem.*, 1973, **60**, 87-93, (*Mössbauer*)

Stapfer, C.H. *et al.*, *J. Organomet. Chem.*, 1974, **66**, 425-436, (*ir*)

Gmelin Handbook Inorg. Chem., Syst. No. 46, Organotin Compounds, 1983, **10**, 49, (*props*)