



>>Entry Name: Tributylchlorostannane, 9Cl

Synonym(s): Chlorotributylstannane. Tributyltin chloride

CAS Registry Number: 1461-22-9

$(\text{H}_3\text{CCH}_2\text{CH}_2\text{CH}_2)_3\text{SnCl}$

Molecular Formula: $\text{C}_{12}\text{H}_{27}\text{ClSn}$

Molecular Weight: 325.508

Accurate Mass: 324.082327

Percentage Composition: C 44.28%; H 8.36%; Cl 10.89%; Sn 36.47%

Source/Synthesis: Synth. by redistribution between Bu_4Sn and SnCl_4

Use/Importance: Bactericide, fungicide. Substituted by organolithiums to give organotin compds., lithium enolates $\rightarrow$ tin enolates; couples with vinyl, allyl boranes to give organotin derivs.; substitutes acyl halides in the presence of Pd complex catalysts; with $\text{AcCl/PhCH}_2\text{PdCl(PPh}_3)_2$, reagent for acylative cleavage of cyclic, allylic and benzylic ethers; substitutes alkyl bromides which are active in carbocation or radical reactions $\rightarrow$ alkyl chlorides (subst. proceeds to equilib.)

Physical Description: Liq.

Boiling Point: Bp_{25} 171-173°. $\text{Bp}_{0.45}$ 98°

Density: d^{20} 1.2105

Refractive Index: n_D^{20} 1.4930

Hazard & Toxicity: Fl. p. 120°. LD_{50} (mus, orl) 117 mg/kg

Aldrich: T5020-2

Fluka: 90892

Other: Gelest SNT8085

References:

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