



>>Entry Name: Tetraphenylstannane

Synonym(s): Tin tetraphenyl. Tetraphenyltin

CAS Registry Number: 595-90-4

SnPh₄

Molecular Formula: C₂₄H₂₀Sn

Molecular Weight: 427.132

Accurate Mass: 426.0587

Percentage Composition: C 67.49%; H 4.72%; Sn 27.79%

Source/Synthesis: Synth. from PhMgBr and ZnCl₂ in Et₂O followed by addn. of SnCl₄ in toluene

Use/Importance: In the presence of Pd complex catalysts, substitutes acyl halides, imidoyl chlorides; also substitutes aryl halides, diazonium salts under CO → ketones.

Alkylates acrylic acid at the β-position in the presence of H₂AuCl₄. Undergoes Heck reaction catalysed by Pd complexes. With WCl₆, catalyst for alkyne polym. and alkene metathesis. Polym. catalyst

Physical Description: Prisms (CHCl₃) or needles (Py)

Melting Point: Mp 225.7°

Boiling Point: Bp 420°

Solubility: Spar. sol. EtOH, Et₂O; insol. petrol

Hazard & Toxicity: Fl. p. 231°. Highly toxic

Aldrich: T2672-7

Fluka: 88100

Other: Gelest SNT7760

References:

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