



>>Entry Name: Triphenylstannane, 9CI

Synonym(s): Triphenyltin hydride

CAS Registry Number: 892-20-6

Related CAS Registry Numbers(s): 668-34-8

Ph<sub>3</sub>SnH

Molecular Formula: C<sub>18</sub>H<sub>16</sub>Sn

Molecular Weight: 351.034

Accurate Mass: 350.0274

Percentage Composition: C 61.59%; H 4.59%; Sn 33.82%

Source/Synthesis: Synth. by LiAlH<sub>4</sub> redn. of Ph<sub>3</sub>SnCl in Et<sub>2</sub>O

Use/Importance: Reducing agent: ketones → hydrocarbons in the presence of AcCl; acid chlorides → esters, aldehydes; 1,4-hydrostannylation of enones → satd. ketones; reduces C=C bond of α,β-unsatd. esters, nitriles; reduces aldehydes; reduces selenides, tellurides, selenoacetals under radical conditions → hydrocarbons; reduces halides to hydrocarbons in the presence of AIBN; hydrostannylates alkynes in the presence of Pd(0) with reasonable regioselectivity, or with Et<sub>3</sub>B or ultrasound under radical conditions; polym. catalyst

Physical Description: Air- and light-sensitive needles (MeOH aq.)

Melting Point: Mp 29-29.5°

Boiling Point: Bp<sub>2</sub> 177.5-178.5°. Bp<sub>0.15</sub> 157°

Aldrich: 24477-5

Rare Chemicals Library: S61907-8

Other: Gelest SNT8700

#### References:

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