



>>Entry Name: Triethylsilane, 9Cl, 8Cl

CAS Registry Number: 617-86-7

Et₃SiH

Molecular Formula: C₆H₁₆Si

Molecular Weight: 116.278

Accurate Mass: 116.102127

Percentage Composition: C 61.98%; H 13.87%; Si 24.15%

Source/Synthesis: Synth. from EtMgBr + HSiCl₃

Use/Importance: Commercially available reducing agent; with BF₃.Et₂O or F₃CCOOH, lactols → ethers; with BF₃, alcohols → hydrocarbons; aldehydes, ketones → ethers in H⁽⁺⁾/ROH; acyl halides → aldehydes in presence of Rh complex catalyst or Pd/C; with F₃CCOOH, enones → ketones; aliphatic, aromatic ketones and aromatic aldehydes → hydrocarbons; effects partial redn. of polycyclic aromatic compds. with BF₃.H₂O; nitriles → aldehydes; alkyl halides → hydrocarbons. With H₂PtCl₆, catalyst for hydrogenation of alkenes, alkynes, N=N, C=N, ArNO₂. Reagent for cleavage of carbobenzoxy group with PdCl₂/Et₃N. Hydrosilylating agent; effects 1,4-hydrosilylation of enones, enals in presence of Rh(PPh₃)₃Cl; hydrosilylates ketones in presence of Rh^I or Ru^{II} catalysts; isocyanides, isocyanates → silylated formamides or carbamoylsilanes in presence of PdCl₂; hydrosilylates alkynes, alkenes, dienes in presence of Rh, Pt, Pd complex catalysts

Physical Description: Liq.

Melting Point: Fp -156.9°

Boiling Point: Bp 108.77°

Density: d₄²⁰ 0.73

Refractive Index: n_D²⁰ 1.4130

Aldrich: 23019-7

Fluka: 90550

Sigma: T5176

References:

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