



>>Entry Name: Tris(trimethylsilyl)phosphine, 9CI

CAS Registry Number: 15573-38-3

$\text{P}(\text{SiMe}_3)_3$

Molecular Formula: $\text{C}_9\text{H}_{27}\text{PSi}_3$

Molecular Weight: 250.542

Accurate Mass: 250.115818

Percentage Composition: C 43.15%; H 10.86%; P 12.36%; Si 33.63%

Source/Synthesis: Synth. from piperidinodichlorophosphine + Li + Me_3SiCl in boiling THF

Use/Importance: Versatile reagent for the prep. of alkyl and acyl phosphines; ligand for B, Al, Mn, Co, Ni and metals of Group VIB

Physical Description: Air-sensitive colourless liq.

Melting Point: Mp 24°

Boiling Point: Bp 242-243°. Bp₁₆ 102-105°. Bp_{0.001} 46-50°

Hazard & Toxicity: Pyrophoric. Requires handling under inert atm.

Aldrich: 33367-0

References:

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Becker, G. *et al.*, *Chem. Ber.*, 1975, **108**, 2484, (synth, props)

Roesch, L. *et al.*, *Z. Anorg. Allg. Chem.*, 1976, **426**, 99, (P-31 nmr)

Müller, H. *et al.*, *J. Organomet. Chem.*, 1977, **140**, C17, (cmr)

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