



>>Entry Name: Tris(2,5-dimethylphenyl)phosphine, 9CI

CAS Registry Number: 115034-38-3

Molecular Formula: C₂₄H₂₇P

Molecular Weight: 346.451

Accurate Mass: 346.185037

Percentage Composition: C 83.20%; H 7.85%; P 8.94%

Use/Importance: Ligand for Co and Ni

Physical Description: Needles or cryst. (EtOH)

Melting Point: Mp 155° (148°)

>>Derivative: Methiodide

Synonym(s): Methyltris(2,5-dimethylphenyl)phosphonium iodide

Molecular Formula: C₂₅H₃₀IP

Molecular Weight: 488.39

Accurate Mass: 488.112985

Percentage Composition: C 61.48%; H 6.19%; I 25.98%; P 6.34%

Melting Point: Mp 169°

>>Derivative: Oxide

Molecular Formula: C₂₄H₂₇OP

Molecular Weight: 362.45

Accurate Mass: 362.179952

Percentage Composition: C 79.53%; H 7.51%; O 4.41%; P 8.55%

Physical Description: Solid

Melting Point: Mp 173°

>>Derivative: Sulfide

Molecular Formula: C₂₄H₂₇PS

Molecular Weight: 378.517

Accurate Mass: 378.157107

Percentage Composition: C 76.16%; H 7.19%; P 8.18%; S 8.47%

Physical Description: Solid

Melting Point: Mp 170°

References:

Michaelis, A., *Annalen*, 1901, **315**, 43, (*synth, derivs*)

Culcasi, M. *et al.*, *J.O.C.*, 1991, **56**, 3537, (*synth, pmr, P-31 nmr*)