



>>Entry Name: 1,1,1-Tris(diphenylphosphinomethyl)ethane

Synonym(s): [2-[(Diphenylphosphino)methyl]-2-methyl-1,3-propanediyl]bis[diphenylphosphine], 9CI

CAS Registry Number: 22031-12-5

$(\text{Ph}_2\text{PCH}_2)_3\text{CCH}_3$

Molecular Formula: $\text{C}_{41}\text{H}_{39}\text{P}_3$

Molecular Weight: 624.68

Accurate Mass: 624.226461

Percentage Composition: C 78.83%; H 6.29%; P 14.88%

Physical Description: Air-sensitive cryst. (EtOH or petrol)

Melting Point: Mp 100-101°

Other Data: Forms complexes with Group VIII metals

Aldrich: 38074-1

Fluka: 93322

>>Derivative: Methiodide (1:3)

Synonym(s): 1,1,1-Tris(methyldiphenylphosphoniomethyl)ethane

Molecular Formula: $\text{C}_{44}\text{H}_{48}\text{I}_3\text{P}_3$

Molecular Weight: 1050.498

Accurate Mass: 1050.010305

Percentage Composition: C 50.31%; H 4.61%; I 36.24%; P 8.85%

Physical Description: Cryst. (MeNO_2)

Melting Point: Mp 310-311°

References:

Hewertson, W. *et al.*, *J.C.S.*, 1962, 1490, (*synth, derivs*)

Sacconi, L., *Proc. Int. Conf. Coord. Chem.*, 6th, 1961, 1976, **6**, 225, (*complexes, rev*)

Sanger, A.R., *J. Mol. Catal.*, 1978, **3**, 221, (*use*)

Davies, S.G. *et al.*, *Chem. Comm.*, 1981, 341, (*complexes*)

Mealli, C. *et al.*, *Acta Cryst. B*, 1982, **38**, 1040, (*cryst struct*)