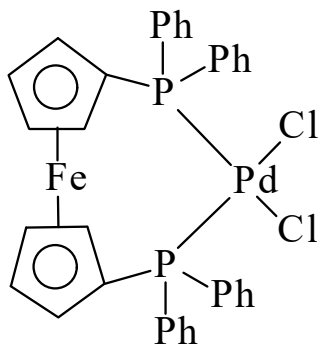




>>Entry Name: [1,1'-Bis(diphenylphosphino)ferrocene-*P,P'*]dichloropalladium, 9Cl

Synonym(s): Dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium



CAS Registry Number: 72287-26-4

Related CAS Registry Numbers(s): 95464-05-4

Molecular Formula: C₃₄H₂₈Cl₂FeP₂Pd

Molecular Weight: 731.715

Accurate Mass: 729.942745

Percentage Composition: C 55.81%; H 3.86%; Cl 9.69%; Fe 7.63%; P 8.47%; Pd 14.54%

Source/Synthesis: Synth. from 1,1'-Bis(diphenylphosphino)ferrocene [JLG23-E](#) and K₂PdCl₄

Use/Importance: Catalyses cross-coupling of primary and secondary alkyl Grignard and alkylzinc reagents with organic halides. Catalyses coupling of aryl halides and primary amines to form secondary amines. Catalyst for coupling dialkoxyboranes with aryl halides

Physical Description: Vermilion cryst. (CHCl₃) or purple cryst. (CH₂Cl₂/MeOH/toluene)

Melting Point: Mp 167 dec.°. Mp 265-268 dec.°

Solubility: Sol. THF, MeCN, CH₂Cl₂, CH₂Cl₃; insol. H₂O

Other Data: Forms a CH₂Cl₂ solvate

Aldrich: 37967-0

References:

Hayashi, T. *et al.*, *Tet. Lett.*, 1979, 1871, (*synth, use*)

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Hayashi, T. *et al.*, *J. Organomet. Chem.*, 1980, **186**, C1, (*use*)

Hayashi, T. *et al.*, *Chem. Comm.*, 1981, 313, (*use*)

Kobayashi, T. *et al.*, *Chem. Comm.*, 1981, 333, (*use*)

Hayashi, T. *et al.*, *J.A.C.S.*, 1984, **106**, 158, (*synth, struct, ir, pmr*)

Butler, I.R. *et al.*, *Organometallics*, 1985, **4**, 972, (*struct*)

Housecroft, C.E. *et al.*, *Organometallics*, 1990, **9**, 1617, (*synth, electrochem, reactions*)

Tatsuo, I. *et al.*, *J.O.C.*, 1995, **60**, 7508, (*use*)

De Lima, G.M. *et al.*, *Transition Met. Chem. (London)*, 1995, **20**, 380, (*synth, P-31 nmr, cryst struct, ir, Raman*)

Driver, M.S. *et al.*, *J.A.C.S.*, 1996, **118**, 7217, (*use*)

Murata, M. *et al.*, *J.O.C.*, 1997, **62**, 6458, (*use, coupling of dialkoxyboranes with aryl halides*)

Casagrande, O.L. *et al.*, *Polyhedron*, 1997, **16**, 171, (*thermol*)