



>>Entry Name: **Dibromobis(triphenylphosphine)nickel(II)**, 9CI

Synonym(s): Bis(triphenylphosphine)nickel(II) dibromide

CAS Registry Number: 14126-37-5

Related CAS Registry Numbers(s): 36673-36-6

NiBr₂(PPh₃)₂ (C_{2v})

Molecular Formula: C₃₆H₃₀Br₂NiP₂

Molecular Weight: 743.078

Accurate Mass: 739.994292

Percentage Composition: C 58.19%; H 4.07%; Br 21.51%; Ni 7.90%; P 8.34%

General Statement: Pseudo-tetrahedral struct.

Use/Importance: Catalyst for hydrogenation of unsatd. molecules, oligomerisation of terminal alkynes, dehalogenation reactions, butadiene dimerisation, and cross-coupling reactions

Physical Description: Olive-green cryst.

Melting Point: Mp 222-225°

Solubility: Sol. Me₂CO

Other Data: μ_{eff} = 3.27μ_B (300K). Dipole moment 5.9D

Aldrich: 33170-8

References:

Venanzi, L.M., *J.C.S.*, 1958, 719, (*synth*)

Cotton, F.A., *J.A.C.S.*, 1961, **83**, 344, (*synth, uv-vis, magnetism, reactions*)

Jarvis, J.A.J. *et al.*, *J.C.S.(A)*, 1968, 1473, (*cryst struct*)

Winzer, A. *et al.*, *Z. Chem.*, 1970, **10**, 438, (*synth*)

Que, L. *et al.*, *Inorg. Chem.*, 1973, **12**, 156, (*uv*)

Matienzo, J. *et al.*, *Inorg. Chem.*, 1973, **12**, 2762

Allen, E.A. *et al.*, *Spectrochim. Acta A*, 1974, **30**, 1219, (*ir*)