



>>Entry Name: Chlorotris(triphenylphosphine)rhodium, 10Cl

Synonym(s): Tris(triphenylphosphine)chlororhodium(I). Tris(triphenylphosphine)rhodium(I) chloride. Wilkinson's catalyst

CAS Registry Number: 14694-95-2

(Ph₃P)₃RhCl

Molecular Formula: C₅₄H₄₅ClP₃Rh

Molecular Weight: 925.229

Accurate Mass: 924.147763

Percentage Composition: C 70.10%; H 4.90%; Cl 3.83%; P 10.04%; Rh 11.12%

Source/Synthesis: Synth. from RhCl₃ + PPh₃ in EtOH under reflux for 2h

Use/Importance: Active catalyst for the hydrogenation and hydroformylation of alkenes and alkynes, for the hydrosilylation of alkenes and carbonyl compds., for alkene hydroboration and oxidn., for the selective deuteration of unsaturated compds. and the decarbonylation of acid halides and aldehydes. Also functions as an alkene isomerisation catalyst. Also catalyses the hydroacylation of alkenes by aldehydes to give ketones

Physical Description: Red-purple cryst. (EtOH)

Melting Point: Mp 157-158°

Solubility: Sol. DMF, CH₂Cl₂; mod. sol. C₆H₆, toluene; spar. sol. AcOH, Me₂CO, alcohols; insol. alkanes

Other Data: Also exists in a yellow form

Aldrich: 20503-6

Fluka: 93403

Sigma: T7014

References:

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Jun, C.-H. *et al.*, *J.O.C.*, 1997, **62**, 1200, (use, hydroacylation)

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