



>>Entry Name: Chlorotris(triphenylphosphine)cobalt(I)

CAS Registry Number: 26305-75-9

$\text{CoCl}(\text{PPh}_3)_3$

Molecular Formula: $\text{C}_{54}\text{H}_{45}\text{ClCoP}_3$

Molecular Weight: 881.256

Accurate Mass: 880.175461

Percentage Composition: C 73.60%; H 5.15%; Cl 4.02%; Co 6.69%; P 10.54%

Source/Synthesis: Synth. from $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$, NaBH_4 and PPh_3

Use/Importance: Catalyst for cyclodimerisation of butadiene and for dimerisation of alkenes

Physical Description: Green solid (EtOH)

Melting Point: Mp 177 dec.°

Other Data: Stable in solid state; dec. in soln.

Aldrich: 36184-4

References:

Aresta, M. *et al.*, *Inorg. Chim. Acta*, 1969, **3**, 227, (*synth, ir*)

Cairns, M.A. *et al.*, *J. Organomet. Chem.*, 1974, **64**, C19

Kawakami, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1978, **51**, 21

Kanai, H. *et al.*, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 1015

Steinberger, B., *J. Organomet. Chem.*, 1983, **244**, 283, (*use*)

Cassidy, J.M. *et al.*, *Acta Cryst. C*, 1991, **47**, 2094-2098, (*cryst struct*)

Edwards, H.G.M. *et al.*, *Inorg. Chim. Acta*, 1994, **216**, 191-199, (*ir, Raman*)

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