



>>Entry Name: Palladium(II) chloride (PdCl₂), 8Cl

Synonym(s): Palladium dichloride

CAS Registry Number: 7647-10-1

Related CAS Registry Numbers(s): 10038-97-8

Molecular Formula: Cl₂Pd

Molecular Weight: 177.325

Accurate Mass: 175.841182

Percentage Composition: Cl 39.99%; Pd 60.01%

Aldrich: 32337-3

Fluka: 76050

Sigma: P0250

>>Variant: α-form

Molecular Formula: Cl₂Pd

Molecular Weight: 177.325

Accurate Mass: 175.841182

Percentage Composition: Cl 39.99%; Pd 60.01%

Source/Synthesis: Synth. from Palladium [JCC05-V](#) + Cl₂ above 550°

Use/Importance: Commercially available. Starting material for many Pd compds.; v. many catalytic applications

Physical Description: Red hygroscopic cryst.

Melting Point: Mp 936° (dec.)

Boiling Point: Subl. 600°

Solubility: Sol. H₂O, HCl

>>Variant: β-form

Synonym(s): Dodeca-μ-chlorohexapalladium

CAS Registry Number: 12268-04-1

Molecular Formula: Cl₁₂Pd₆

Molecular Weight: 1063.952

Accurate Mass: 1055.047092

Percentage Composition: Cl 39.99%; Pd 60.01%

Source/Synthesis: Synth. from Palladium [JCC05-V](#) + Cl₂ below 550°, or from Dicarbonyldi-μ-chlorodichlorodipalladium [GDZ85-E](#) in SOCl₂, or from PdCl₂(PhCN)₂ in C₆H₆/CHCl₃

Physical Description: Red-brown or red-black cryst.

Solubility: Sol. aromatic solvs.; insol. CH₂Cl₂

References:

Sidgwick, N.V., *The Chemical Elements and their Compds.*, Oxford, 1950, 1559, (rev)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **3**, 1728, (synth)

Wells, A.F., *Structural Inorg. Chem.*, 5th edn., Oxford, 1984, 414; 436; 1120

Cotton, F.A. *et al.*, *Advanced Inorganic Chemistry*, 5th edn., Wiley Interscience, 1988, 877

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