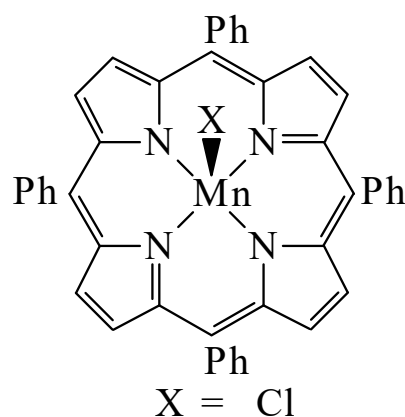




>>Entry Name: Chloro(tetraphenylporphyrinato)manganese(III)

Synonym(s): Chloro[5,10,15,20-tetraphenyl-21*H*,23*H*-porphinato(2-)-*N*²¹,*N*²²,*N*²³,*N*²⁴]manganese, 11Cl



CAS Registry Number: 32195-55-4

Molecular Formula: C₄₄H₂₈ClMnN₄

Molecular Weight: 703.123

Accurate Mass: 702.138295

Percentage Composition: C 75.16%; H 4.01%; Cl 5.04%; Mn 7.81%; N 7.97%

General Statement: Square pyramidal

Source/Synthesis: Synth. from Mn(OAc)₂ and H₂TPP in refluxing DMF in air followed by treatment with aq. NaCl at 0°

Use/Importance: Catalyses O₂ oxidation of alkenes to ketones in presence of [Bu₄N]BH₄, and tosylamidation of cyclohexane by PhI=N(tosyl)

Physical Description: Air-stable dark green cryst. (C₆H₆)

Other Data: μ_{eff} = 4.94μ_B (298K); high spin *d*⁴ complex. Magnetic moment decreases rapidly at 15K

Aldrich: 25475-4

Fluka: 24897

>>Derivative: Py complex

see Chloro(tetraphenylporphyrinato)(pyridine)manganese(III), [HZD70-Z](#)

>>Derivative: Me₂CO solvate

Physical Description: Cryst.

Other Data: Mn-Cl 236 pm, Mn displaced 27 pm out of skeletal plane towards Cl

>>Derivative: Bis-C₆H₆ solvate

Other Data: μ_{eff} = 4.9μ_B

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