



>>Entry Name: Manganese(II) acetate

Synonym(s): Manganese diacetate. Manganese diethanoate

CAS Registry Number: 638-38-0

Related CAS Registry Numbers(s): 2180-18-9 15243-27-3

$\text{Mn}(\text{OAc})_2$

Molecular Formula: $\text{C}_4\text{H}_6\text{MnO}_4$

Molecular Weight: 173.027

Accurate Mass: 172.964657

Percentage Composition: C 27.77%; H 3.50%; Mn 31.75%; O 36.99%

Source/Synthesis: Synth. by heating the tetrahydrate with acetic anhydride

Physical Description: Forms complex anions $[\text{Mn}(\text{OAc})_4]^{2(-)}$

Melting Point: Mp 210°

Solubility: Sol. H_2O , MeOH, EtOH, AcOH; insol. Me_2CO

Other Data: Tetragonal struct. $\mu_{\text{eff}} = 5.56\mu_{\text{B}}$ (292 K)

Aldrich: 33082-5

>>Derivative: Tetrahydrate

CAS Registry Number: 6156-78-1

Source/Synthesis: Synth. from MnCO_3 and AcOH

Use/Importance: Commercially available

Physical Description: Red cryst.

Other Data: Struct. contains MnO_6 and *cis*- $\text{MnO}_4(\text{H}_2\text{O})_2$ octahedra. Exhibits complex magnetic behaviour

Aldrich: 22977-6

Fluka: 63537

Sigma: M0147

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1276C, (*ir*)

Edwards, D.A. *et al.*, *Can. J. Chem.*, 1968, **46**, 3443, (*synth*)

Mehr, A. *et al.*, *J. Chem. Phys.*, 1968, **48**, 4381, (*uv*)

Burlet, P. *et al.*, *Solid State Commun.*, 1974, **14**, 665, (*magnetism*)

Tranqui, D. *et al.*, *Acta Cryst. B*, 1977, **33**, 1357, (*cryst struct*)

Wood, T.E. *et al.*, *Inorg. Chem.*, 1979, **18**, 2936, (*uv*)

Gmelin Handbook Inorg. Chem., Syst. No. 56, 1980, **D2**, 29, (*rev, bibl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn.*, Van Nostrand Reinhold, 1992, MAQ000; MAQ250