



>>Entry Name: **Iron(II) acetate**

Synonym(s): Ferrous acetate. Iron(II) ethanoate. Ferrous ethanoate. Acetic acid, iron(2+) salt

CAS Registry Number: 3094-87-9

Extra CAS Registry Numbers(s): 2140-52-5 2140-73-0

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

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

Molecular Weight: 173.936

Accurate Mass: 173.961549

Percentage Composition: C 27.62%; H 3.48%; Fe 32.11%; O 36.79%

Source/Synthesis: Synth. from $\text{Fe}(\text{CO})_5$ + HOAc and Ac_2O in DMF

Physical Description: White or colourless cryst.

Melting Point: Mp 190-200 dec.°

Other Data: $\mu_{\text{eff}} = 5.19\mu_{\text{B}}$

Aldrich: 33919-9

>>Derivative: Tetrahydrate

Molecular Formula: $\text{C}_4\text{H}_{14}\text{FeO}_8$

Molecular Weight: 245.997

Percentage Composition: C 19.53%; H 5.74%; Fe 22.70%; O 52.03%

Use/Importance: Used for textile dyeing; wood preservative

Physical Description: Green cryst., oxidises in air

Solubility: Sol. H_2O , EtOH

Other Data: Dec. on heating

References:

Gmelin Handbook Inorg. Chem., Syst. No. 59, 1930, 521, (rev, bibl)

Hardt, H.D. *et al.*, *Z. Anorg. Allg. Chem.*, 1961, **313**, 57, (*synth*)

Calderazzo, F. *et al.*, *J.C.S.(A)*, 1969, 1378, (*synth, ir*)

Fernandez, G.J. *et al.*, *Rev. Acad. Cienc. Exactas, Fis., Quim. Nat. Zaragoza*, 1973, **28**, 303, (*struct*)

Catterick, J. *et al.*, *J.C.S. Dalton*, 1977, 1420, (*ir, uv, synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn., Van Nostrand Reinhold*, 1992, FBH000