



>>Entry Name: Zinc acetate, USAN
ENTRY UNDER REVIEW

CAS Registry Number: 557-34-6

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

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

Molecular Weight: 183.479

Accurate Mass: 181.955755

connected by AcO bridges in a *syn-anti* arrangement

Source/Synthesis: Obt. e.g. from Ac_2O and $\text{Zn}(\text{OH})_2$; β -form by dehydration of dihydrate at 236°

Use/Importance: Antistatic agent; bactericide; anticorrosion agent; antimicrobial agent; antiplaque agent; fungicide. Anticopper agent used for the treatment of Wilson's disease

Melting Point: Mp 242°

Boiling Point: Subl.₁₅₀ 200°

Solubility: Sol. H_2O ; org. solvs. except EtOH

Other Data: Dec. at 180° to $\text{Zn}_4\text{O}(\text{OAc})_6$

Aldrich: 38331-7

>>Derivative: Dihydrate

CAS Registry Number: 5970-45-6

Molecular Formula: $\text{C}_4\text{H}_{10}\text{O}_6\text{Zn}$

Molecular Weight: 219.509

Percentage Composition: C 21.89%; H 4.59%; O 43.73%; Zn 29.79%

Physical Description: Cryst. (AcOH aq.)

Hazard & Toxicity: Eye and skin irritant. LD₅₀ (rat, orl) 2170 mg/kg

Aldrich: 22335-2

Fluka: 96458

Sigma: Z0625

References:

- Aldrich Library of FT-IR Spectra*, 1st edn., 1985, **2**, 1275C, (ir)
Duval, C. *et al.*, *Ann. Phys. (Leipzig)*, 1942, **17**, 5, (uv)
McCrone, W.C. *et al.*, *Anal. Chem.*, 1949, **21**, 645, (powder struct, dihydrate)
Gmelin Handbook Inorg. Chem., Syst. No. 32, 1956, 980, (rev, bibl)
Ananthanarayanan, V., *Proc. Indian Acad. Sci., Sect. A*, 1962, **50**, 188, (Raman, dihydrate)
McAdie, H.G., *J. Inorg. Nucl. Chem.*, 1966, **28**, 2801, (thermal anal, dihydrate)
Djega-Mariadassou, G. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1967, **264**, 1753, (synth, ir, β -form, powder struct)
Valero Capilla, A. *et al.*, *Cryst. Struct. Commun.*, 1979, **8**, 795, (cryst struct)
Panevchik, V.V. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1981, **26**, 1373, (powder struct)
Baraldi, P. *et al.*, *Spectrochim. Acta A*, 1981, **37**, 89, (ir, salt and dihydrate)
Johnson, M.K. *et al.*, *Spectrochim. Acta A*, 1981, **37**, 899, (Raman, ir, salt and dihydrate)
Brewer, G.J. *et al.*, *Ann. Intern. Med.*, 1983, **99**, 314, (use)
Marshall, G.L., *Org. Mass Spectrom.*, 1983, **18**, 168, (ms)
Caminiti, R. *et al.*, *J. Chem. Phys.*, 1984, **81**, 543, (cmr, soln struct)
Clegg, W. *et al.*, *Acta Cryst. C*, 1986, **42**, 1701, (cryst struct)
Kunwar, A.C. *et al.*, *J. Magn. Reson.*, 1986, **69**, 124, (Zn-67 nmr)
Meier, B.H. *et al.*, *J.A.C.S.*, 1987, **109**, 7937, (cmr)
Prozarovskaya, Z.N. *et al.*, *Koord. Khim.*, 1988, **14**, 435, (ir, pmr, dihydrate)
Tackett, J.E., *Appl. Spectrosc.*, 1989, **43**, 483, (ir, Raman)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 1428
Brewer, G.J. *et al.*, *J. Lab. Clin. Med.*, 1994, **123**, 849, (use)
Ishioka, T. *et al.*, *Acta Cryst. C*, 1997, **53**, 1029-1031, (cryst struct)
Encyclopedia of Food and Color Additives, (ed. Burdock, G.A.), CRC Press, 1997, 2986
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, ZBS000; ZCA000