



>>Entry Name: Yttrium acetate

Synonym(s): Yttrium triacetate

CAS Registry Number: 23363-14-6

Related CAS Registry Numbers(s): 26908-14-5

$\text{Y}(\text{OAc})_3$

Molecular Formula: $\text{C}_6\text{H}_9\text{O}_6\text{Y}$

Molecular Weight: 266.039

Accurate Mass: 265.945764

Percentage Composition: C 27.09%; H 3.41%; O 36.08%; Y 33.42%

Physical Description: White solid

Solubility: Sol. H_2O

>>Derivative: Tetrahydrate

CAS Registry Number: 85949-60-6

Molecular Formula: $\text{C}_6\text{H}_{17}\text{O}_{10}\text{Y}$

Molecular Weight: 338.1

Percentage Composition: C 21.31%; H 5.07%; O 47.32%; Y 26.30%

Source/Synthesis: Synth. from Y_2O_3 on boiling with HOAc (1:1)

Use/Importance: Commercially available

Physical Description: Colourless hygroscopic cryst.

Solubility: Sol. H_2O

Other Data: Dimeric struct. with 9-coord. Y, each bound to two chelating OAc, two bridging OAc and $2\text{H}_2\text{O}$

References:

- Moeller, T. *et al.*, *J. Inorg. Nucl. Chem.*, 1960, **15**, 259, (synth)
Witt, J.R. *et al.*, *J. Inorg. Nucl. Chem.*, 1963, **24**, 637, (synth)
Grigor'ev, A.I. *et al.*, *Zh. Neorg. Khim.*, 1964, **9**, 1060; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1964, **9**, 580, (synth, ir)
Grigor'ev, A.I. *et al.*, *J. Struct. Chem. (Engl. Transl.)*, 1969, **10**, 43
Ferraro, J.R. *et al.*, *J. Inorg. Nucl. Chem.*, 1970, **32**, 1495, (ir)
Gmelin Handbook Inorg. Chem., Syst. No 39 Suppl. No., 1984, **D5**, 31, (rev)
Ribot, F. *et al.*, *Inorg. Chim. Acta*, 1991, **185**, 239, (synth, tetrahydrate, solid nmr, ir, cryst struct)
Brough, A.R. *et al.*, *J.A.C.S.*, 1993, **115**, 7318, (tetrahydrate, mas-cmr)