



>>Entry Name: Terbium nitrate

Synonym(s): Trinitratoterbium

CAS Registry Number: 10043-27-3

Related CAS Registry Numbers(s): 39675-74-6 81201-45-8

Tb(NO<sub>3</sub>)<sub>3</sub>

Molecular Formula: N<sub>3</sub>O<sub>9</sub>Tb

Molecular Weight: 344.94

Accurate Mass: 344.888799

Percentage Composition: N 12.18%; O 41.74%; Tb 46.07%

Physical Description: Hygroscopic pink solid

Solubility: Sol. H<sub>2</sub>O, EtOH

>>Derivative: Trihydrate

Synonym(s): Terbium nitrate trihydrate

CAS Registry Number: 76567-53-8

>>Derivative: Pentahydrate

CAS Registry Number: 57584-27-7

Aldrich: 32594-5

>>Derivative: Hexahydrate

Synonym(s): Terbium nitrate hexahydrate

CAS Registry Number: 13451-19-9

Physical Description: Colourless needles

Melting Point: Mp 89°

Solubility: Sol. H<sub>2</sub>O, EtOH, Me<sub>2</sub>CO

Other Data: Prob. contains Tb(NO<sub>3</sub>)<sub>3</sub>(H<sub>2</sub>O)<sub>3</sub> molecules. Most common hydrate

Aldrich: 21721-2

#### References:

*Inorg. Synth.*, 1957, **5**, 37, (*synth*)

Walker, A. *et al.*, *J. Chem. Phys.*, 1965, **43**, 2689, (*ir*)

Ivanov-Emin, B.N. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1972, **17**, 1517, (*synth, ir*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **2**, 1109, (*synth*)

Bünzli, J.-G.G. *et al.*, *Inorg. Chim. Acta*, 1983, **73**, 53, (*synth, fluorescence*)