



>>Entry Name: Samarium(III) fluoride (SmF₃)

CAS Registry Number: 13765-24-7

SmF₃

Molecular Formula: F₃Sm

Molecular Weight: 207.355

Accurate Mass: 208.914938

Percentage Composition: F 27.49%; Sm 72.51%

Source/Synthesis: Prepd. from soln. as hydrate

Physical Description: White solid

Melting Point: Mp 1300° (1306°)

Boiling Point: Bp 2323°

Solubility: Insol. H₂O

Aldrich: 43208-3

References:

Zalkin, A. *et al.*, *J.A.C.S.*, 1953, **75**, 2453, (*synth*)

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Batsanova, L.R. *et al.*, *Zh. Neorg. Khim.*, 1972, **17**, 1209; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1972, **17**, 629, (*hydrate*)

Spedding, F.H. *et al.*, *J. Chem. Phys.*, 1974, **60**, 1578, (*struct*)

Greis, O. *et al.*, *Z. Anorg. Allg. Chem.*, 1974, **403**, 1, (*struct*)

Haschke, J.M., *J. Solid State Chem.*, 1975, **12**, 115, (*synth*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **1**, 254, (*synth*)

Gmelin Handbook Inorg. Chem., Syst. No. 39 Suppl., 1976, **C3**, 195, (*rev*)

Greis, O. *et al.*, *Handbook on the Physics and Chemistry of Rare Earths*, 1982, **5**, 387, (*rev*)

Eur. Pat., 1985, 156 617; *CA*, **103**, 198046, (*synth*)

Mioduski, T. *et al.*, *Solubility Data Ser.*, 1985, **22**, 203

Greis, O. *et al.*, *Thermochim. Acta*, 1985, **87**, 145, (*dta*)

Uwamino, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 2263, (*pe*)