



>>Entry Name: Praseodymium(III) iodide (PrI₃)

Synonym(s): Praseodymium triiodide

CAS Registry Number: 13813-23-5

PrI₃

Molecular Formula: I₃Pr

Molecular Weight: 521.621

Accurate Mass: 521.620966

Percentage Composition: I 72.99%; Pr 27.01%

Physical Description: Hygroscopic green cryst.

Melting Point: Mp 737° (733°)

Boiling Point: Bp 1377°

Solubility: Sol. H₂O

Aldrich: 46632-8

>>Derivative: Nonahydrate

CAS Registry Number: 75179-63-4

Molecular Formula: H₁₈I₃O₉Pr

Molecular Weight: 683.758

Accurate Mass: 683.716051

Percentage Composition: H 2.65%; I 55.68%; O 21.06%; Pr 20.61%

Physical Description: Hygroscopic green needles

Solubility: Sol. H₂O

Other Data: Loses H₂O *in vacuo* to afford hexahydrate

References:

Ephraim, F. *et al.*, *Ber.*, 1928, **61**, 65, (*nonahydrate, synth*)

Asprey, L.B. *et al.*, *Inorg. Chem.*, 1964, **3**, 1137, (*struct*)

Brown, D., *Halides of the Lanthanides and Actinides*, Wiley-Interscience, 1968, 219, (*rev*)

Carter, F.L. *et al.*, *Mater. Res. Bull.*, 1972, **7**, 519

Alikberova, L.Yu. *et al.*, *Zh. Neorg. Khim.*, 1973, **18**, 3110; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1973, **18**, 1654, (*nonahydrate, synth*)

Kwestroo, W. *et al.*, *J. Inorg. Nucl. Chem.*, 1976, **38**, 1019, (*nonahydrate, synth*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, 1978, **C6**, 188, (*rev*)

Popenko, N.I. *et al.*, *Inorg. Chim. Acta*, 1978, **31**, 2371, (*ed*)

Heinio, O. *et al.*, *Acta Chem. Scand., Ser. A*, 1980, **34**, 207, (*nonahydrate, synth, struct, tga*)

Inorg. Synth., 1983, **22**, 31, (*synth*)

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