



>>Entry Name: Lutetium(III) iodide (LuI₃)

Synonym(s): Lutetium triiodide

CAS Registry Number: 13813-45-1

LuI₃

Molecular Formula: I₃Lu

Molecular Weight: 555.681

Accurate Mass: 555.654189

Percentage Composition: I 68.51%; Lu 31.49%

Physical Description: Deliquescent white or yellow solid

Melting Point: Mp 1050° (1045°)

Boiling Point: Bp 1200°

Solubility: Sol. H₂O

Aldrich: 46057-5

>>Derivative: Octahydrate

CAS Registry Number: 60073-59-8

Molecular Formula: H₁₆I₃LuO₈

Molecular Weight: 699.802

Accurate Mass: 699.738709

Percentage Composition: H 2.30%; I 54.40%; Lu 25.00%; O 18.29%

Physical Description: Hygroscopic colourless cryst.

Solubility: Sol. H₂O

Other Data: Forms hexahydrate *in vacuo* at r.t. Nonahydrate also known

References:

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Kwestroo, W. *et al.*, *J. Inorg. Nucl. Chem.*, 1976, **38**, 1019, (*octahydrate, synth*)
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Popenko, N.I. *et al.*, *Inorg. Chim. Acta*, 1978, **31**, 2371, (*ed*)
Beck, H.P. *et al.*, *Z. Anorg. Allg. Chem.*, 1979, **453**, 79, (*struct*)
Heinio, O. *et al.*, *Acta Chem. Scand., Ser. A*, 1980, **34**, 207, (*octahydrate, synth, struct, tga*)
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Loktyushina, N.S. *et al.*, *Zh. Fiz. Khim.*, 1984, **58**, 2631, (*ir*)
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