



>>Entry Name: Holmium(III) bromide (HoBr₃)

Synonym(s): Holmium tribromide

CAS Registry Number: 13825-76-8

HoBr₃

Molecular Formula: Br₃Ho

Molecular Weight: 404.642

Accurate Mass: 401.745327

Percentage Composition: Br 59.24%; Ho 40.76%

Physical Description: Yellow solid

Melting Point: Mp 914°

Boiling Point: Bp 0° 1470°

Solubility: Sol. H₂O, THF

Aldrich: 43976-2

>>Derivative: Hexahydrate

Synonym(s): Hexaaquadibromholmium(1+) bromide

CAS Registry Number: 15162-88-6

Molecular Formula: Br₃H₁₂HoO₆

Molecular Weight: 512.733

Accurate Mass: 509.808717

Percentage Composition: Br 46.75%; H 2.36%; Ho 32.17%; O 18.72%

Physical Description: Pale yellow cryst.

Solubility: Sol. H₂O

Other Data: Loses H₂O on controlled heating *in vacuo*. Formulated as [Ho(OH₂)₆Br₂]⁽⁺⁾Br

References:

- Mayer, I. *et al.*, *J. Inorg. Nucl. Chem.*, 1965, **27**, 1905, (*hexahydrate, synth, tga*)
Brown, D., *Halides of the Lanthanides and Actinides*, Wiley-Interscience, 1968, 194, (*rev*)
Brown, D. *et al.*, *J.C.S. Dalton*, 1968, 1889, (*anhydr, hexahydrate, synth, cryst structs*)
Basile, L.J. *et al.*, *J. Chem. Phys.*, 1971, **55**, 3729, (*ir*)
Gmelin Handbook Inorg. Chem., Syst. No. 39, 1978, **C6**, (*rev*)
Beck, H.P. *et al.*, *Z. Anorg. Allg. Chem.*, 1983, **502**, 178, (*struct*)
Uwamino, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 2263, (*pe*)
Meyer, G. *et al.*, *J. Less-Common Met.*, 1987, **127**, 155, (*synth*)