>>**Entry Name: Holmium(*III*) perchlorate**
**Synonym(s):** Holmium triperchlorate

**CAS Registry Number:** 14017-54-0
**Related CAS Registry Numbers(s):** 14692-16-1 14692-19-4 61565-06-8 68028-00-2
$Ho(ClO_4)_3$

**Molecular Formula:** $Cl_3HoO_{12}$
**Molecular Weight:** 463.281
**Accurate Mass:** 461.775855
**Percentage Composition:** Cl 22.96%; Ho 35.60%; O 41.44%
**Source/Synthesis:** Synth. from hydrates at 200-250° in Ar
**Physical Description:** Solid
**Solubility:** Sol. $H_2O$
**Other Data:** Several hydrates known
**Hazard & Toxicity:** Potentially explosive

**Aldrich:** 44387-5

>>**Derivative:** Hexahydrate

**Molecular Formula:** $Cl_3H_{12}HoO_{18}$
**Molecular Weight:** 571.372
**Accurate Mass:** 569.839245
**Percentage Composition:** Cl 18.61%; H 2.12%; Ho 28.87%; O 50.40%
**Physical Description:** Yellow cryst.
**Solubility:** Sol. $H_2O$
**Other Data:** Prob. contains $[Ho(H_2O)_6]^{3(+)}$ ions

**References:**


Moeller, T. *et al.*, *J. Inorg. Nucl. Chem.*, 1965, **27**, 1477, *(synth)*
Bel'kova, M.M. *et al.*, *Zh. Neorg. Khim.*, 1965, **10**, 1374; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1965, **10**, 747, *(synth, ir)*
Forsberg, J.H. *et al.*, *Inorg. Chem.*, 1969, **8**, 883, *(synth)*
*Gmelin Handbook Inorg. Chem.*, *Syst. No* 39, 1977, **C5**, 83, *(rev)*
Wickleder, M.S. *et al.*, *Z. Anorg. Allg. Chem.*, 1999, **625**, 309-312, *(synth, xrd, anhyd)*