



>>Entry Name: Holmium nitrate

Synonym(s): Trinitratoholmium

CAS Registry Number: 10168-82-8

Related CAS Registry Numbers(s): 39675-76-8 81201-51-6

$\text{Ho}(\text{NO}_3)_3$

Molecular Formula: HoN_3O_9

Molecular Weight: 350.945

Accurate Mass: 350.893776

Percentage Composition: Ho 47.00%; N 11.97%; O 41.03%

Physical Description: Hygroscopic yellow solid

Solubility: Sol. H_2O , EtOH

>>Derivative: Trihydrate

Synonym(s): Holmium nitrate trihydrate

CAS Registry Number: 76567-55-0

>>Derivative: Pentahydrate

Synonym(s): Holmium nitrate pentahydrate

CAS Registry Number: 14483-18-2

Use/Importance: Commercially available

Solubility: Sol. H_2O , EtOH, Me_2CO

Other Data: Believed to contain 9-coord. $\text{Ho}(\text{NO}_3)_3(\text{H}_2\text{O})_3$ molecules. Most common hydrate

Aldrich: 32573-2

>>Derivative: Trihydrate, bis-bipy complex

Molecular Formula: $\text{C}_{20}\text{H}_{22}\text{HoN}_7\text{O}_{12}$

Molecular Weight: 717.364

Accurate Mass: 717.062967

Percentage Composition: C 33.49%; H 3.09%; Ho 22.99%; N 13.67%; O 26.76%

Other Data: Bipy does not coord., contains $\text{Ho}(\text{NO}_3)_3(\text{H}_2\text{O})_3$ molecules

References:

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Walker, A. *et al.*, *J. Chem. Phys.*, 1965, **43**, 2689, (*ir*)

Ivanov-Emin, B.N. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1972, **17**, 1517, (*synth, ir*)

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