



>>Entry Name: Indium(III) nitrate

CAS Registry Number: 13770-61-1

Extra CAS Registry Numbers(s): 13465-14-0

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

Molecular Formula: InN_3O_9

Molecular Weight: 300.835

Accurate Mass: 300.867337

Percentage Composition: In 38.17%; N 13.97%; O 47.87%

Source/Synthesis: Synth. from In, InCl_3 , or $\text{In}(\text{NO}_3)_3 \cdot 3\text{H}_2\text{O}$ and N_2O_5

Physical Description: Colourless hygroscopic cryst. (by subl.)

Boiling Point: Subl._{0.001} 130°

Other Data: Many complexes $\text{InL}_6(\text{NO}_3)_3$ known

>>Derivative: Trihydrate

Molecular Formula: $\text{H}_6\text{InN}_3\text{O}_{12}$

Molecular Weight: 354.88

Accurate Mass: 354.899032

Percentage Composition: H 1.70%; In 32.35%; N 11.84%; O 54.10%

Source/Synthesis: Synth. from In and HNO_3

Physical Description: Colourless cryst. (H_2O)

>>Derivative: Pentahydrate

References:

Hester, R.E. *et al.*, *J. Chem. Phys.*, 1963, **38**, 249

Hester, R.E. *et al.*, *Inorg. Chem.*, 1964, **3**, 768; 769

Field, B.O. *et al.*, *J.C.S.*, 1964, 4428, (*synth, ir*)

Tuck, D.G. *et al.*, *J.C.S.(A)*, 1966, 1077, (*synth*)

Cannon, T.H. *et al.*, *Trans. Faraday Soc.*, 1966, **62**, 1378, (*In-115 nmr*)

Hester, R.E. *et al.*, *Spectrochim. Acta A*, 1967, **23**, 1945, (*Raman*)

Svergun, V.I. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1970, 1676, (*nqr*)