



>>Entry Name: Mercury(I) iodide (Hg₂I₂)

Synonym(s): Mercurous iodide

CAS Registry Number: 15385-57-6

I-Hg-Hg-I

Molecular Formula: Hg₂I₂

Molecular Weight: 654.989

Accurate Mass: 657.75018

Percentage Composition: Hg 61.25%; I 38.75%

Source/Synthesis: Synth. from HgCl₂, KI and SnCl₂

Use/Importance: Used in acoustooptical devices

Biological Use/Importance: Antiseptic

Physical Description: Light-sensitive yellow solid

Melting Point: Mp 290°

Boiling Point: Subl. 140°

Solubility: Prac. insol. H₂O, EtOH

Other Data: Slow dec. to Hg and HgI₂ at r.t.. K_{sp} 5.2 x 10⁻²⁹ at 25°. Ferroelastic

Aldrich: 40074-2

Fluka: 83375

>>Derivative: Monomer

CAS Registry Number: 7783-30-4

Molecular Formula: HgI

Molecular Weight: 327.494

Accurate Mass: 328.87509

Percentage Composition: Hg 61.25%; I 38.75%

Other Data: Has no separate existence

References:

- Havinghurst, R.J., *Am. J. Sci.*, 1925, **10**, 15, (*cryst struct*)
Agrestini, A., *Boll. Chim. Farm.*, 1931, **70**, 448, (*synth*)
Goldstein, M. *et al.*, *Spectrochim. Acta*, 1966, **22**, 1389, (*ir*)
Gmelin Handbook Inorg. Chem., Syst. No. 34, 1967, **B2**, 832
Stammreich, H. *et al.*, *J. Mol. Struct.*, 1967, **1**, 55, (*Raman*)
Osaka, T., *J. Chem. Phys.*, 1971, **54**, 863, (*far ir*)
Wendlandt, W.W., *Thermochim. Acta*, 1974, **10**, 101, (*thermal anal*)
Barta, C. *et al.*, *Zh. Eksp. Teor. Fiz.*, 1976, **70**, 1429; *CA*, **85**, 38921, (*Raman, phase trans*)
Barta, C. *et al.*, *Abh. Akad. Wiss. DDR, Abt. Math., Naturwiss., Tech.*, 1977, 261, (*electroopt props*)
Sakai, H. *et al.*, *CA*, 1978, **88**, 11300, (*I-129 Mössbauer*)
Nefedov, V.I. *et al.*, *Zh. Neorg. Khim.*, 1979, **24**, 2564, (*pe*)
McCarthy, K.A. *et al.*, *Opt. Commun.*, 1987, **64**, 157, (*optical rotations of cryst*)
Kaplyanski, A.K. *et al.*, *Indian J. Appl. Chem.*, 1988, **26**, 252, (*Raman, phase trans*)