



>>Entry Name: Mercury(II) fluoride (Hg₂F₂)

Synonym(s): Mercurous fluoride

CAS Registry Number: 13967-25-4

F-Hg-Hg-F

Molecular Formula: F₂Hg₂

Molecular Weight: 439.177

Accurate Mass: 441.93804

Percentage Composition: F 8.65%; Hg 91.35%

Source/Synthesis: Synth. from: Hg₂(NO₃)₂ and NaF; or Hg₂CO₃ and HF; or Hg₂Cl₂ + AgF

Use/Importance: Used as a fluorinating agent. Used in acoustooptical devices

Physical Description: Tetragonal yellow cryst.; dec. in H₂O at 15°, darkens on exposure to light

Melting Point: Mp 570°

Solubility: V. sol. H₂O, which results in hydrol. to Hg, HgO and HF

Aldrich: 33931-8

>>Derivative: "Monomer"

Molecular Formula: FHg

Molecular Weight: 219.588

Accurate Mass: 220.96902

Percentage Composition: F 8.65%; Hg 91.35%

References:

- Ebert, F. *et al.*, *Z. Anorg. Allg. Chem.*, 1933, **210**, 269, (*cryst struct*)
Montignie, E., *Bull. Soc. Chim. Fr.*, 1937, **4**, 342, (*synth*)
Gmelin Handbook Inorg. Chem., Syst. No. 34, 1967, **B3**, 403, (*rev, bibl*)
Stammreich, H. *et al.*, *J. Mol. Struct.*, 1967, **1**, 55, (*Raman*)
Gabuda, S.P. *et al.*, *Spectrosc. Lett.*, 1968, **1**, 421, (*pmr, F-19 nmr, powder struct*)
Deb, S.K. *et al.*, *Phys. Rev. B*, 1970, **2**, 5003, (*uv-vis*)
Dorm, E., *Chem. Comm.*, 1971, 466, (*cryst struct*)
Kirk-Othmer Encycl. Chem. Technol., 3rd edn., Wiley, 1978, **10**, 763
Wurtinger, W. *et al.*, *Z. Phys. A*, 1979, **293**, 219, (*Mössbauer*)
Kleier, D.A. *et al.*, *J.A.C.S.*, 1980, **102**, 6909, (*theory*)
Laubach, S. *et al.*, *Hyperfine Interact.*, 1985, **23**, 259, (*Hg-199 Mössbauer*)