



**>>Entry Name: Iron(II) iodide (FeI<sub>2</sub>)**

**Synonym(s):** Ferrous iodide. Iron diiodide. Iron protoiodide

**CAS Registry Number:** 7783-86-0

FeI<sub>2</sub>

**Molecular Formula:** FeI<sub>2</sub>

**Molecular Weight:** 309.656

**Accurate Mass:** 309.743885

**Percentage Composition:** Fe 18.04%; I 81.96%

**Source/Synthesis:** Obt. from iron filings + I<sub>2</sub>

**Use/Importance:** Used in manuf. of alkali metal iodides, pharmaceutical preparations. and in discharge lamps. Catalyst.

**Physical Description:** Dark violet to black; hygroscopic, stable in moisture-free air; light sensitive

**Melting Point:** Mp 177°

**Solubility:** Sol. H<sub>2</sub>O, EtOH, Et<sub>2</sub>O

**Other Data:** Paramagnetic;  $\mu_{\text{eff}} = 5.75\mu_{\text{B}}$  (295K)

**Aldrich:** 40085-8

**Fluka:** 44957

**>>Derivative:** Tetrahydrate

**Molecular Formula:** FeH<sub>8</sub>I<sub>2</sub>O<sub>4</sub>

**Molecular Weight:** 381.717

**Accurate Mass:** 381.786145

**Percentage Composition:** Fe 14.63%; H 2.11%; I 66.49%; O 16.77%

**Physical Description:** Green cryst (H<sub>2</sub>O)

**References:**

*Gmelin Handbook Inorg. Chem., Syst. No. 59, 1929, 336, (rev, bibl)*

Colton, R. *et al.*, *Halides of the First Row Transition Metals*, Wiley 1, 1969, 291, (rev, bibl)

*Inorg. Synth.*, 1973, **14**, 104, (synth)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **3**, 1644, (synth)

Job, R. *et al.*, *Inorg. Nucl. Chem. Lett.*, 1979, **15**, 81, (synth)

Mucklejohn, S.A. *et al.*, *J. Phys. Chem.*, 1985, **89**, 2409, (synth, use)