



>>Entry Name: Nickel(II) iodide (NiI₂), 9CI

Synonym(s): Nickel diiodide

CAS Registry Number: 12640-78-7

Extra CAS Registry Numbers(s): 13462-90-3

NiI₂

Molecular Formula: I₂Ni

Molecular Weight: 312.499

Accurate Mass: 311.744292

Percentage Composition: I 81.22%; Ni 18.78%

Source/Synthesis: Synth. from Ni + I₂ or from Nickel(II) hydroxide (Ni(OH)₂) [JCB95-R](#) + HI

Physical Description: Black solid

Melting Point: Mp 797°

Solubility: Sol. H₂O, EtOH

Other Data: Antiferromagnetic

>>Derivative: Hexahydrate

Synonym(s): Hexaaquanickel(II) diiodide

CAS Registry Number: 7790-34-3

Molecular Formula: H₁₂I₂NiO₆

Molecular Weight: 420.59

Accurate Mass: 419.807682

Percentage Composition: H 2.88%; I 60.35%; Ni 13.95%; O 22.82%

Physical Description: Green solid

Solubility: Sol. H₂O

Other Data: Best considered as salt of Hexaaquanickel(II)(2+) [JWL44-J](#)

References:

Sidgwick, N.V., *The Chemical Elements and their Compds.*, Oxford, 1950, 1433

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **3**, 1688, (*synth*)

Kuindersma, S.R. *et al.*, *Physica B+C (Amsterdam)*, 1981, **111**, 231, (*magnetism*)

Wells, A.F., *Structural Inorg. Chem.*, 5th Ed., Oxford, 1984, 413