



>>Entry Name: Bis(hypophosphito)nickel(II)

Synonym(s): Phosphinic acid nickel salt, 10Cl

CAS Registry Number: 14507-36-9

Extra CAS Registry Numbers(s): 36026-88-7

$[\text{Ni}(\text{H}_2\text{PO}_2)_2]_n$

Molecular Formula: $\text{H}_4\text{NiO}_4\text{P}_2$

Molecular Weight: 188.667

Accurate Mass: 187.89383

Percentage Composition: H 2.14%; Ni 31.11%; O 33.92%; P 32.83%

General Statement: Prob. polymeric with octahedral Ni

Source/Synthesis: Synth. from Nickel(II) benzoate [JZZ35-U](#) + H_4PO_2 + 2,2'-dimethoxypropane in MeOH

Physical Description: Yellow solid

Other Data: Paramagnetic

>>Derivative: Hexahydrate

Synonym(s): Hexaaquanickel(II) hypophosphite

CAS Registry Number: 13477-97-9

Molecular Formula: $\text{H}_{16}\text{NiO}_{10}\text{P}_2$

Molecular Weight: 296.758

Accurate Mass: 295.95722

Percentage Composition: H 5.43%; Ni 19.78%; O 53.91%; P 20.87%

Physical Description: Green solid

Melting Point: Mp 100° (dec.)

Solubility: Sol. H_2O

Other Data: Prob. best considered as $\text{H}_2\text{P}_2\text{O}_2$ salt of Hexaaquanickel(II)(2+) [JWL44-J](#)

References:

Johnson, N.C. *et al.*, *Inorg. Chim. Acta*, 1978, **27**, 191, (*synth, ir, uv, magnetism*)