>>**Entry Name: Indium phosphate ($InPO_4$)**
Synonym(s): Indium(3+) phosphate (1:1), 9CI, 8CI

CAS Registry Number: 14693-82-4
Related CAS Registry Numbers(s): 56761-78-5
$InPO_4$

Molecular Formula: InO_4P
Molecular Weight: 209.791
Accurate Mass: 209.857302
Percentage Composition: In 54.73%; O 30.51%; P 14.76%

Source/Synthesis: Synth. from $In(NO_3)_3$ + H_3PO_4 or $(NH_4)H_2PO_4$. At 200-300°; dihydrate → monohydrate which dehydrates at 400-600° → amorphous anhydrous salt which cryst. at 643°
Melting Point: Mp 1600°
Other Data: Stable at 1600°. At 1800° → P_2O_5. Forms adducts with H_3PO_4

>>**Derivative:** "Monohydrate"

Other Data: Probably not a true hydrate

>>**Derivative:** Dihydrate

CAS Registry Number: 19153-61-8
Source/Synthesis: Synth. from $InCl_3$ + H_3PO_4 + NaOH to pH 1.7-3.0
Physical Description: Dipyramidal prisms
Other Data: Has struct. $In(OH)(HPO_4).H_2O$. Orthorhombic or monoclinic. Loses 1 H_2O at 200-300°. Complex struct. containing channels with PO_4 tetrahedra (P-O 155 pm) and In octahedra (In-O 208-228 pm)

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