



>>Entry Name: Indium bromides
ENTRY UNDER REVIEW

Molecular Formula: [BrIn]

>>Variant: Indium bromide (InBr)

CAS Registry Number: 14280-53-6

Molecular Formula: BrIn
Molecular Weight: 194.724
Accurate Mass: 193.842216
Percentage Composition: Br 41.03%; In 58.97%

Source/Synthesis: Synth. from In + HgBr₂ at 350°
Use/Importance: Forms ternary halides with metal halides, organoindium halides with organomercurials
Physical Description: Red solid
Melting Point: Mp 285°
Aldrich: 46060-5

>>Variant: Indium bromide (In₇Br₉)

Synonym(s): Indium(1+) bromide hexabromoindate(3-) (6:3:1). Hexaindium(1+) tribromide hexabromoindate

CAS Registry Number: 39310-66-2
Extra CAS Registry Numbers(s): 41099-58-5
Molecular Formula: Br₉In₇
Molecular Weight: 1522.876
Accurate Mass: 1514.772184
Percentage Composition: Br 47.22%; In 52.78%
Source/Synthesis: Obt. as intermediate in complex reactions between InBr and alkyl bromides
Physical Description: Yellow solid
Other Data: Dec. >200°. Formulated as 6In⁽⁺⁾[InBr₆]³⁽⁻⁾3Br⁽⁻⁾

>>Variant: Indium bromide (In₅Br₇)

Synonym(s): Indium(1+) bromide hexabromodiindate(2-) (3:1:1). Triindium(1+) bromide hexabromodiindate

CAS Registry Number: 53199-64-7
Molecular Formula: Br₇In₅
Molecular Weight: 1133.428
Accurate Mass: 1127.087752

Physical Description: Yellow platelets, becomes red below Mp
Melting Point: Mp 234°
Other Data: Formulated as 3In⁽⁺⁾[In₂Br₆]²⁽⁻⁾Br⁽⁻⁾

>>Variant: Indium bromide (In₄Br₇)

Synonym(s): Indium(1+) hexabromoindate(3-) tetrabromoindate(1-) (5:1:2)

CAS Registry Number: 12234-26-3
Extra CAS Registry Numbers(s): 53184-02-4
Molecular Formula: Br₇In₄
Molecular Weight: 1018.608
Accurate Mass: 1012.183872
Percentage Composition: Br 54.91%; In 45.09%
Source/Synthesis: Synth. from stoichiometric amounts of In and InBr₃ in molten state
Physical Description: Air- and moisture-sensitive pale yellow-green cryst.
Other Data: Formulated as (In³⁽⁺⁾)₃(In⁽⁺⁾)₅(Br⁽⁻⁾)₁₄; In³⁽⁺⁾ found in tetrahedral and octahedral environments; In⁽⁺⁾ found in three different environments, essentially 5In⁽⁺⁾2[InBr₄]⁽⁻⁾[InBr₆]³⁽⁻⁾