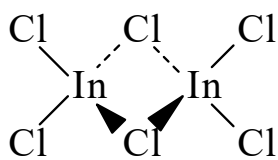




>>Entry Name: Indium(III) chloride

Synonym(s): Indium trichloride



vapour struct.

CAS Registry Number: 10025-82-8

Related CAS Registry Numbers(s): 16999-64-7 18251-72-4 50800-85-6

Extra CAS Registry Numbers(s): 22519-64-8

Molecular Formula: Cl_3In

Molecular Weight: 221.178

Accurate Mass: 219.810436

Percentage Composition: Cl 48.09%; In 51.91%

Source/Synthesis: Synth. from In_2O_3 and SOCl_2 at 300° , or from $\text{In} + \text{Cl}_2$

Use/Importance: ^{113}In compd. used as radioactive agent e.g. for bone marrow scintigraphy (*Indium chlorides In 113m*, USAN). Catalyst for imino-Diels Alder reactions to give quinolines

Physical Description: Deliquescent yellow cryst.

Melting Point: Mp 580° . Mp 586° (subl. 500°)

Boiling Point: Subl. 546°

Other Data: Many complexes descr.

Hazard & Toxicity: LD₅₀ (rat, ipr) 2.4 mg/kg. Pulmonary toxicant in rats

Aldrich: 42941-4

Fluka: 57110

>>Derivative: Dimer

Synonym(s): Di- μ -chlorotetrachlorodiindium(III)

CAS Registry Number: 21563-01-9

Molecular Formula: Cl_6In_2

Molecular Weight: 442.356

Accurate Mass: 439.620872

Percentage Composition: Cl 48.09%; In 51.91%

>>Derivative: Trihydrate, tris-dioxan complex

Synonym(s): Indium trichloride trihydrate tris(dioxan). Triaquatrchloroindium tris(dioxan)

Molecular Formula: $\text{C}_{12}\text{H}_{30}\text{Cl}_3\text{InO}_9$

Molecular Weight: 539.542

Accurate Mass: 537.999421

Percentage Composition: C 26.71%; H 5.60%; Cl 19.71%; In 21.28%; O 26.69%

Physical Description: Hygroscopic white cryst.

Other Data: Struct. contains *fac*- $\text{InCl}_3(\text{OH}_2)_3$ octahedra

>>Derivative: Tris-DMSO complex

CAS Registry Number: 14266-85-4

Molecular Formula: $\text{C}_6\text{H}_{18}\text{Cl}_3\text{InO}_3\text{S}_3$

Molecular Weight: 455.583

Accurate Mass: 453.852241

Percentage Composition: C 15.82%; H 3.98%; Cl 23.35%; In 25.20%; O 10.54%; S 21.12%

Source/Synthesis: Electrochem. synth. from In and Cl_2 in $\text{C}_6\text{H}_6/\text{DMSO}$

Physical Description: Non-hygroscopic white cryst.

Solubility: Sol. alcohols, EtOAc, MeNO_2