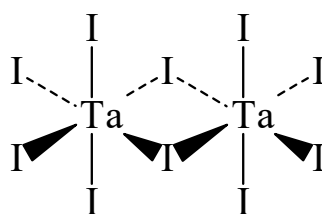




>>Entry Name: Tantalum(V) iodide (TaI₅), 11Cl

Synonym(s): Tantalum pentaiodide



dimer

CAS Registry Number: 14693-81-3

Molecular Formula: I₅Ta

Molecular Weight: 815.47

Accurate Mass: 815.470357

Percentage Composition: I 77.81%; Ta 22.19%

Source/Synthesis: Synth. from Ta + I₂ >700° or from TaCl₅ and BI₃

Physical Description: Brown solid

Melting Point: Mp 496°

Boiling Point: Bp 543°

Solubility: Insol. CCl₄, hydrocarbons; sol. donor solvs.

Other Data: Readily hydrol. Slowly forms Ta₂O₅ in O₂ at r.t.

>>Derivative: Dimer

Synonym(s): Di-μ-iodooctaiododitantalum(V)

Molecular Formula: I₁₀Ta₂

Molecular Weight: 1630.941

Accurate Mass: 1630.940714

Percentage Composition: I 77.81%; Ta 22.19%

References:

Korosy, F., *J.A.C.S.*, 1939, **61**, 838, (*synth*)

Druce, P.M. *et al.*, *J.C.S.(A)*, 1971, 3595, (*synth*)

Brauer, G., *Handbuch Prep. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **3**, 1457, (*synth*)

Mueller, U., *Acta Cryst. B*, 1979, **35**, 2502, (*cryst struct*)