



>>Entry Name: Iridium(III) chloride (IrCl₃), 8Cl

Synonym(s): Iridium trichloride

CAS Registry Number: 10025-83-9

IrCl₃

Molecular Formula: Cl₃Ir

Molecular Weight: 298.578

Accurate Mass: 297.869473

Percentage Composition: Cl 35.62%; Ir 64.38%

Use/Importance: Catalyst for chlorination and polym. reactions

Aldrich: 33680-7

Fluka: 58200

Sigma: I1140

>>Variant: α-form

Molecular Formula: Cl₃Ir

Molecular Weight: 298.578

Accurate Mass: 297.869473

Percentage Composition: Cl 35.62%; Ir 64.38%

Physical Description: Air-stable brown plates

Other Data: Converts to β-form on heating at 600°; almost complete conversion at 750°

>>Variant: β-form

Molecular Formula: Cl₃Ir

Molecular Weight: 298.578

Accurate Mass: 297.869473

Percentage Composition: Cl 35.62%; Ir 64.38%

Physical Description: Air-stable deep red cryst.

Other Data: Dec. at 763°. An olive-green modification has also been reported

References:

Brodersen, K. *et al.*, *Naturwissenschaften*, 1965, **52**, 205, (*struct*)

Babel, D. *et al.*, *Z. Anorg. Allg. Chem.*, 1965, **339**, 57, (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 132, (*use*)

Kolbin, N.I. *et al.*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1967, **12**, 919, (*synth*)

Dillamore, I.M. *et al.*, *J. Inorg. Nucl. Chem.*, 1969, **31**, 2427, (*ir*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **3**, 1735, (*synth*)