



>>Entry Name: Dysprosium(III) chloride (DyCl₃)

Synonym(s): Dysprosium trichloride

CAS Registry Number: 10025-74-8

Type of Compound Code(s): ND0310

DyCl₃

Molecular Formula: Cl₃Dy

Molecular Weight: 268.858

Accurate Mass: 268.835727

Percentage Composition: Cl 39.56%; Dy 60.44%

General Statement: Has YCl₃ struct. at r.t. but PuBr₃ struct. adopted at higher temps.

Physical Description: Hygroscopic white cryst.

Melting Point: Mp 718° (647, 654°)

Boiling Point: Bp 1530°

Solubility: Sol. H₂O, EtOH

Aldrich: 45083-9

>>Derivative: Hexahydrate

Synonym(s): Hexaaquadichlorodysprosium(1+) chloride

CAS Registry Number: 15059-52-6

Molecular Formula: Cl₃DyH₁₂O₆

Molecular Weight: 376.949

Accurate Mass: 376.899117

Percentage Composition: Cl 28.22%; Dy 43.11%; H 3.21%; O 25.47%

Physical Description: Bright yellow cryst.

Melting Point: Mp 162° (155°)

Other Data: Formulated as [DyCl₂(OH)₆]⁽⁺⁾Cl⁽⁻⁾. Begins to lose H₂O at 70°

Aldrich: 28927-2

Sigma: D1034

>>Derivative: Bis-DME complex

>>Derivative: Bis-THF complex

see Trichlorobis(tetrahydrofuran)dysprosium, [MKQ84-V](#)

References:

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