



>>Entry Name: Terbium chloride (TbCl₃)

CAS Registry Number: 10042-88-3

TbCl₃

Molecular Formula: Cl₃Tb

Molecular Weight: 265.283

Accurate Mass: 263.831898

Percentage Composition: Cl 40.09%; Tb 59.91%

Physical Description: Hygroscopic white solid

Melting Point: Mp 588° (582°)

Boiling Point: Bp 1550°

Solubility: Sol. H₂O, EtOH

Other Data: Ferromagnetic below 3.7K

Aldrich: 43965-7

>>Derivative: Hexahydrate

Synonym(s): Hexaaquadichloroterbium(1+) chloride

CAS Registry Number: 13798-24-8

Molecular Formula: Cl₃H₁₂O₆Tb

Molecular Weight: 373.375

Accurate Mass: 371.895288

Percentage Composition: Cl 28.49%; H 3.24%; O 25.71%; Tb 42.56%

Use/Importance: Brilliantly triboluminescent

Physical Description: Deliquescent colourless prisms

Melting Point: Mp 158-159°

Solubility: V. sol. H₂O; sol. EtOH

Other Data: Formulated as [TbCl₂(OH₂)₆]⁽⁺⁾Cl⁽⁻⁾. Begins to dehydrate at 65°

Aldrich: 21290-3

Fluka: 86382

>>Derivative: Bis-THF complex

References:

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