



>>Entry Name: Terbium sulfate (Tb₂(SO₄)₃)

CAS Registry Number: 13692-99-4

Tb₂(SO₄)₃

Molecular Formula: O₁₂S₃Tb₂

Molecular Weight: 606.041

Accurate Mass: 605.705874

Percentage Composition: O 31.68%; S 15.87%; Tb 52.45%

Source/Synthesis: Anhyd. salts prepd. by dehydration of hydrate

Other Data: $\mu_{\text{eff}} = 9.66\mu_{\text{B}}$

>>Derivative: Octahydrate

CAS Registry Number: 13842-67-6

Molecular Formula: H₁₆O₂₀S₃Tb₂

Molecular Weight: 750.163

Accurate Mass: 749.790394

Percentage Composition: H 2.15%; O 42.66%; S 12.82%; Tb 42.37%

Source/Synthesis: Commercially available

Physical Description: White cryst.

Solubility: Sl. sol. H₂O

Other Data: 8-Coord. Loses 8H₂O at 360°. $\mu_{\text{eff}} = 9.75\mu_{\text{B}}$

Aldrich: 32595-3

References:

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Chachra, S.P. *et al.*, *Indian J. Pure Appl. Phys.*, 1976, **14**, 14, (*magnetism*)

Pokrovskii, A.N. *et al.*, *Zh. Neorg. Khim.*, 1976, **21**, 567; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1976, **21**, 305, (*tga, dta*)

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