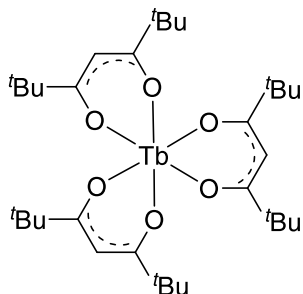


Catalog # 65-8000 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato)terbium(III), 99% (99.9%-Tb) (REO) [Tb(TMHD)3]



Thermal Behavior:

- Melting point: 177-180°C [1, 3-4], 150-152°C [2]
- Decomposition: 275°C
- TGA diagram and data is available in [3, 4]

Technical Notes:

1. ALD/CVD precursor and dopant for terbium thin film deposition

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Tb ₂ O ₃	ALD	150°C	1.5-2.25 Torr	O ₃	300°C	5
	CVD	170°C, 190°C	AP	-	470-550°C	6
	CVD	160-215°C	AP	-	475-560°C	7
AlTb _x O _y	ALD	190°C	-	TME, O ₃	350°C	8
TbF ₃	ALD	135-138°C	7.5 Torr	TiF ₄	275-350°C	9

References:

1. [J. Am. Chem. Soc. **1965**, *87*, 5254](#)
2. [Analytica Chim. Acta, **1968**, *40*, 101](#)
3. [Thermochim. Acta, **1991**, *175*, 91](#)
4. [J. Therm. Anal. Calorimetry, **2004**, *75*, 591](#)
5. [ECS J. Solid State Sci. Technol. **2012**, *1*, P5](#)
6. [Inorg. Mat. **2014**, *50*, 379](#)
7. [Chem. Vap. Deposition **2015**, *21*, 1](#)
8. [Opt. Express **2018**, *26*, 9344](#)
9. [J. Vac. Sci. Technol. A, **2021**, *39*, 022404](#)