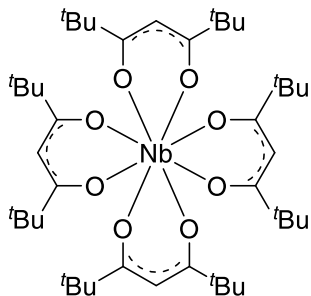


Catalog # 41-7000 Tetrakis(2,2,6,6-tetramethyl-3,5-heptanedionato)niobium(IV), 99% [Nb(TMHD)4]



Thermal Behavior:

- Melting point 219-220°C
- Decomposition: 325°C
- TGA diagram and data available in [1]

Technical Notes:

1. ALD/CVD precursor for niobium containing thin film deposition..

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Nb ₂ O ₅	ALD	-	2 Torr	O ₂	220°	2
LiNbO ₃	CVD	250°C	2-20 Torr	Li(tmhd), O ₂	650°C	1
Pb _x Mg _y O ₃	CVD	-	1 Torr	Bb(tmhd) ₄ , Mg(tmhd) ₂ , O ₂	700°C	3
InNbO ₄	CVD	Toluene solution	AP	In(tmhd) ₃ , O ₂	400°C	4

References:

1. [Proc. SPIE, 2013, 8626, 862612.](#)
2. [J. Catal. 2021, 398, 102.](#)
3. [J. Cryst. Growth, 2001, 226, 247.](#)
4. [Surf. Coat. Tech. 2010, 204, 3864.](#)