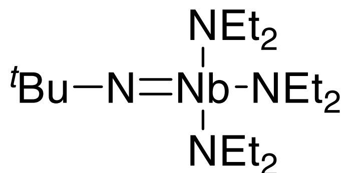
Catalog # 41-0450 (t-Butylimido)tris(diethylamino)niobium(V), min. 98% TBTDEN



Thermal Behavior:
- Distillation temperature: 60°C/10^{-1} Torr [1]
- TGA curve and data is available in [2]

Technical Notes:
1. ALD/CVD precursor for niobium thin film deposition

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Nb_2O_5	ALD PEALD	65°C	3.75-7.5 Torr 0.8 Torr	H_2O or O_3 H_2O and $^{PL}O_2$	150-375°C 150-350°C	2 3
NbN	CVD PEALD PEALD	90°C 100°C 90°C	0.75-3.75 Torr	NH_3 $^{PL}H_2/N_2$ $^{PL}H_2/NH_3$	400-800°C 100-300°C 200-400°C	4 5 6
$Nb_xTi_{1-x}N$	PEALD	100°C		$Ti(NMe_2)_4$, $^{PL}H_2/N_2$	300°C	7
$Nb:TiO_2$	ALD	65°C	0.8 Torr	$Ti(NMe_2)_4$, H_2O	200°C	8
TiS_x-NbS_x	ALD	65°C	0.8 Torr	$Ti(NMe_2)_4$, H_2S	200-300°C	9

References:

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