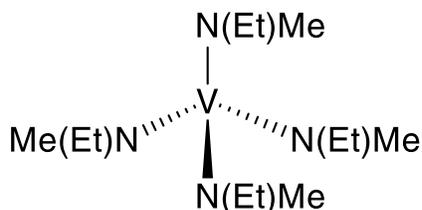


Catalog # 23-0365 Tetrakis(ethylmethylamino)vanadium(IV), 98% TEMAV



## Thermal Behavior:

- Melting point: -70°C [1]
- Vapor pressure: 1 Torr/120°C [1]
- Decomposition: >175° [2, 10]
- TGA diagram and data is available in [1, 2]

## Technical Notes:

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

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
VO <sub>x</sub>	ALD	65°C	3.75-7.5 Torr	O <sub>3</sub>	75-250°C	2
	ALD, PEALD	-	-	O <sub>3</sub> , H <sub>2</sub> O, <sup>PL</sup> O <sub>2</sub>	150°C	3
	ALD	-	-	O <sub>3</sub> , H <sub>2</sub> O	150°C	4-5
	ALD	70°C	-	O <sub>3</sub> , H <sub>2</sub> O	150°C	6
	ALD	60°C	-	H <sub>2</sub> O	150°C	7
	MLD	105°C	0.1 Torr	H <sub>2</sub> O	150°C	8
	MLD	45°C		GL, EG	80-200°C	9
VN <sub>x</sub>	PEALD	-	-	<sup>PL</sup> NH <sub>3</sub>	70-150°C	10
V <sub>x</sub> In <sub>(2-x)</sub> S <sub>3</sub>	ALD	85°C	-	H <sub>2</sub> S, [In(amd) <sub>3</sub> ]	150°C	11
VO <sub>x</sub> P <sub>y</sub>	PEALD	75°C	-	<sup>PL</sup> P(OMe) <sub>3</sub> O, <sup>PL</sup> O <sub>2</sub>	150-350°C	12

## References:

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12. [J. Vac. Sci. Technol. A, 2017, 35, 041513](#)