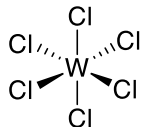


Catalog # 74-2350 Tungsten(VI) chloride (99.9%-W)



## Thermal Behavior:

- Melting point: 275°C [1]; 284°C [2]
- Boiling point: 346.7°C [1]
- Vapor pressure: 1.0 Torr/155°C-2.5 Torr/170°C [3-4], 4 Torr/180°C [5], 9.75 Torr/190°C, 17.3 Torr/203°C [7]
- TGA diagram and data is available in [6]

## Technical Notes:

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

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
WC <sub>x</sub>	CVD	180°C	9.75 Torr	H <sub>2</sub> , C <sub>3</sub> H <sub>8</sub>	750-1050°C	5
	ALD	125°C	5-8 Torr	AlH <sub>2</sub> ( <sup>t</sup> BuN(CH <sub>2</sub> ) <sub>2</sub> NMe <sub>2</sub> )	275-350°C	6
	ALD	125°C	4.5-6 Torr	AlMe <sub>3</sub>	275-350°C	7
WO <sub>x</sub>	APCVD	150°C	AP	H <sub>2</sub> O, ROH	625°C	8-9
WSe <sub>2</sub>	APCVD	260°C	AP	H <sub>2</sub> Se	250-650°C	10
	ALD	85°C	-	H <sub>2</sub> Se/H <sub>2</sub>	600-800°C	11
W:VO <sub>2</sub>	APCVD	-	AP	VOCl <sub>3</sub> , H <sub>2</sub> O [VO(acac) <sub>2</sub> ]; O <sub>2</sub> , VCl <sub>4</sub>	500-525°C	12-14

## References:

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