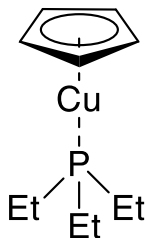


Catalog # 29-5500 Cyclopentadienyl(triethylphosphine)copper(I), min. 98%



## Thermal Behavior:

- Melting point: 122-124°C [1], 127-128°C [1]; 110°C [2]
- Sublimation: 65°C/0.01 Torr [1]; 70°C/0.4-0.5 Torr [2]
- TGA diagram and data are available in [3]
- Vapor pressure: 9.75 mTorr/60°C [6]

## Technical Notes:

1. CVD precursor for copper containing thin film deposition.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Cu	CVD	60°C, 90°C	10 Torr	-	158°C-250°C	4
CuI	CVD	70°C	-	I <sub>2</sub> , C <sub>2</sub> H <sub>5</sub> I	20-350°C 200-350°C	5
CuGaS <sub>2</sub>	CVD	65°C	37.5 Torr	( <sup>t</sup> Bu) <sub>2</sub> S, GaMe <sub>3</sub>	600°C	6
CuGaSe <sub>2</sub>	CVD	35°C	37.5 Torr	( <sup>t</sup> Bu) <sub>2</sub> Se, GaEt <sub>3</sub>	400-600°C	7
CuInSe <sub>2</sub>	CVD	-	-	( <sup>t</sup> Bu) <sub>2</sub> Se, InMe <sub>3</sub>	470°C	8

## References:

1. [J. Am. Chem. Soc. 1970, 92, 5114.](#)
2. [Chem. Mater. 1992, 4, 577.](#)
3. [Thin Solid Films 2020, 701, 137967.](#)
4. [Surf. Coat. Tech. 2007, 201, 9131.](#)
5. [J. Cryst. Growth, 2017, 471, 21.](#)
6. [Thin Solid Films 2005, 480, 188.](#)
7. [J. Cryst. Growth, 2003, 248, 163.](#)
8. [Nat. Commun. 2018, 9, 826.](#)