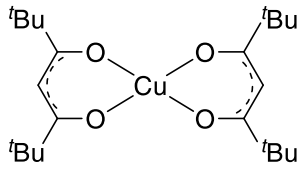
Catalog # 29-3000 Bis(2,2,6,6-tetramethyl-3,5-heptanedionato)copper(II), 99% [Cu(TMHD)2];



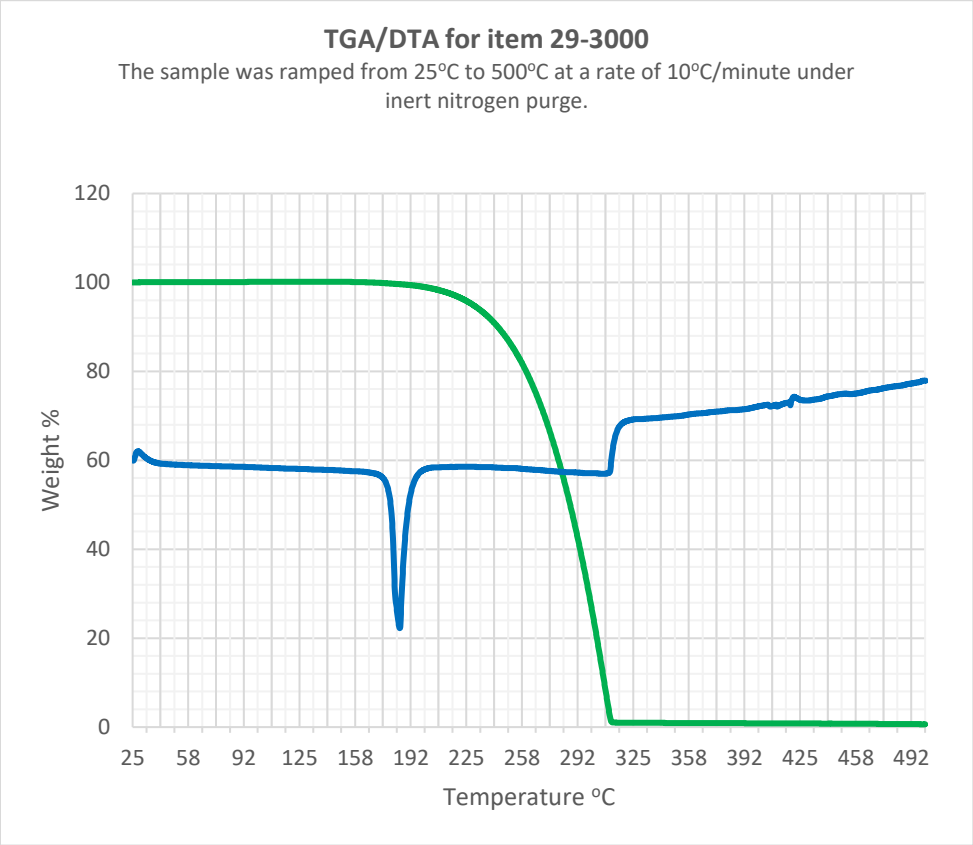

Thermal Behavior:

- Vapor pressure: 1 Torr/168°C [1], 0.03 Torr/125°C[5]
- Decomposition: 160°C at 0.0075 mTorr [1]
- Melting point: 198°C
- Sublimation: 127.5°C [2], 115°C[13], 88°C at 0.05 Torr;
- TGA curve and data is available in [3,4]

Technical Notes:

1. ALD/CVD precursor for copper thin film deposition.

| Target Deposit | Deposition Technique | Delivery Temperature | Pressure | Co-reactants | Deposition Temperature | Ref. |
|---|---|---|---|---|---|---|
| Cu | ALD<br>CVD | 120-130°C<br>165°C | 1-4 Torr<br>0.9-1.1 Torr | $H_2$ | 135-270°C<br>300°C | 5<br>6 |
| CuO | ALD | - | 1.5-2.25 Torr | $O_3$ | 220-225°C | 7 |
| Sr:$Cu_2O$ | CVD | 225°C | 15 Torr | $O_2$, $Sr(tmhd)_2$ | 225-375°C. | 8 |
| $Cu_xS$ | ALD, CVD | 115°C | 1.5 Torr | $H_2S$ | 125-250°C | 9, 10 |
| YBCO | CVD+$h\nu$ | 172°C | 5 Torr | $Y(tmhd)_3$, $Ba(tmhd)_2$, $Cu(tmhd)_2$, $O_2$, $N_2O$ | 800°C | 11 |
| $CaCu_3Ti_4O_{12}$ | CVD | 115°C | 4 Torr | $Ti(tmhd)_2(O^iPr)_2$, $Ca(hfa)_2$, $Cu(tmhd)_2$ | 600°C | 12 |
| $CuCrO_2$ | ALD<br>CVD | 120°C<br>225°C | 1.5-2.25 Torr<br>4,5 Torr | $Cr(acac)_3$, $O_3$<br>$Cr(thd)_3$, $O_2$ | 240-270°C<br>240-550°C | 13<br>14 |

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