>>**Entry Name: Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O*,*O*')terbium**
Synonym(s): Tris(dipivaloylmethanido)terbium. Terbium(*III*) dipivaloylmethanide. $Tb(thd)_3$

CAS Registry Number: 15492-51-0

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O*')chromium(*III*), HXL76-F with
M = Tb

Molecular Formula: $C_{33}H_{57}O_6Tb$
Molecular Weight: 708.735
Accurate Mass: 708.340857
Percentage Composition: C 55.93%; H 8.11%; O 13.54%; Tb 22.42%

Use/Importance: Emits bright green fluorescence when irradiated at 366 nm
Physical Description: White cryst.
Melting Point: Mp 177-180° (150-152°)
Solubility: Sol. C_6H_6, $CHCl_3$, CCl_4, MeOH, EtOH, EtOAc, hexane
Other Data: Paramagnetic, $\mu_{eff} = 9.6\mu_B$

Aldrich: 43405-1
Other: Gelest AKT821

>>**Derivative:** Dimer

Molecular Formula: $C_{66}H_{114}O_{12}Tb_2$
Molecular Weight: 1417.47
Accurate Mass: 1416.681714
Percentage Composition: C 55.93%; H 8.11%; O 13.54%; Tb 22.42%

>>**Derivative:** Py complex

CAS Registry Number: 33134-19-9
Molecular Formula: $C_{38}H_{62}NO_6Tb$
Molecular Weight: 787.836
Accurate Mass: 787.383056
Percentage Composition: C 57.93%; H 7.93%; N 1.78%; O 12.18%; Tb 20.17%
Physical Description: White cryst.
Melting Point: Mp 135-137°
Solubility: Sol. Py, hexane
Other Data: Paramagnetic, $\mu_{eff} = 9.7\mu_B$

>>**Derivative:** Bipy complex

CAS Registry Number: 33134-20-2
Molecular Formula: $C_{43}H_{65}N_2O_6Tb$
Molecular Weight: 864.922
Accurate Mass: 864.409605
Percentage Composition: C 59.71%; H 7.57%; N 3.24%; O 11.10%; Tb 18.37%
Physical Description: White cryst.
Melting Point: Mp 195°
Solubility: Sol. CCl_4, hexane
Other Data: Paramagnetic, $\mu_{eff} = 9.7\mu_B$

>>**Derivative:** Phen complex

CAS Registry Number: 33135-11-4
Molecular Formula: $C_{45}H_{65}N_2O_6Tb$
Molecular Weight: 888.944
Accurate Mass: 888.409605
Percentage Composition: C 60.80%; H 7.37%; N 3.15%; O 10.80%; Tb 17.88%
Physical Description: Greenish-white cryst.
Melting Point: Mp 241-242°
Solubility: Sol. CCl_4, hexane
Other Data: Paramagnetic, $\mu_{eff} = 9.7\mu_B$