



>>Entry Name: **Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)erbium(III)**  
Synonym(s): Tris(dipivaloylmethanido)erbium(III). Erbium tris(dipivaloylmethane)

CAS Registry Number: 35733-23-4

As Tris(2,4-pentanedionato-*O,O'*)erbium(III), [HVQ25-A](#) with  
 $R^1 = R^2 = C(CH_3)_3$

**Molecular Formula:** C<sub>33</sub>H<sub>57</sub>ErO<sub>6</sub>  
**Molecular Weight:** 717.07  
**Accurate Mass:** 715.345805  
**Percentage Composition:** C 55.28%; H 8.01%; Er 23.33%; O 13.39%

**Physical Description:** Hygroscopic pink cryst. (hexane)  
**Melting Point:** Mp 179-181°  
**Solubility:** Sol. C<sub>6</sub>H<sub>6</sub>, CHCl<sub>3</sub>, CCl<sub>4</sub>, MeOH, EtOH, EtOAc, hexane  
**Other Data:** Paramagnetic,  $\mu_{\text{eff}} = 9.3\mu_B$

**Aldrich:** 43407-8  
**Other:** Gelest AKE282

>>Derivative: Py complex  
Synonym(s): (Pyridine)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)erbium(III)

**CAS Registry Number:** 33088-22-1  
**Molecular Formula:** C<sub>38</sub>H<sub>62</sub>ErNO<sub>6</sub>  
**Molecular Weight:** 796.171  
**Accurate Mass:** 794.388004  
**Percentage Composition:** C 57.33%; H 7.85%; Er 21.01%; N 1.76%; O 12.06%  
**Physical Description:** Pink cryst.  
**Melting Point:** Mp 131-133°  
**Solubility:** Sol. Py, C<sub>6</sub>H<sub>6</sub>  
**Other Data:**  $\mu_{\text{eff}} = 9.5\mu_B$

>>Derivative: Bipy complex  
Synonym(s): (2,2'-Bipyridine-*N,N'*)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)erbium(III)

**CAS Registry Number:** 33088-23-2  
**Molecular Formula:** C<sub>43</sub>H<sub>65</sub>ErN<sub>2</sub>O<sub>6</sub>  
**Molecular Weight:** 873.256  
**Accurate Mass:** 871.414553  
**Percentage Composition:** C 59.14%; H 7.50%; Er 19.15%; N 3.21%; O 10.99%  
**Physical Description:** Pink cryst.  
**Melting Point:** Mp 183°  
**Solubility:** Sol. CCl<sub>4</sub>, hexane  
**Other Data:**  $\mu_{\text{eff}} = 9.4 \mu_B$

>>Derivative: Phen complex  
Synonym(s): (1,10-Phenanthroline-*N,N'*)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)erbium(III)

**CAS Registry Number:** 33088-24-3  
**Molecular Formula:** C<sub>45</sub>H<sub>65</sub>ErN<sub>2</sub>O<sub>6</sub>  
**Molecular Weight:** 897.278  
**Accurate Mass:** 895.414553  
**Percentage Composition:** C 60.24%; H 7.30%; Er 18.64%; N 3.12%; O 10.70%  
**Physical Description:** Pink cryst.  
**Melting Point:** Mp 254-256°  
**Solubility:** Sol. CCl<sub>4</sub>, hexane  
**Other Data:**  $\mu_{\text{eff}} = 9.5\mu_B$