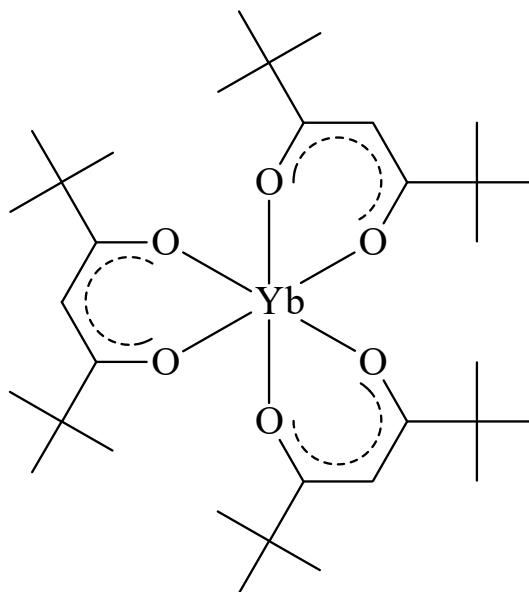




>>Entry Name: Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)ytterbium(III)

Synonym(s): Tris(dipivaloylmethanido)ytterbium(III). Ytterbium tris(dipivaloylmethanide). Yb(thd)<sub>3</sub>. Resolve-Al Yb



CAS Registry Number: 15492-52-1

Molecular Formula: C<sub>33</sub>H<sub>57</sub>O<sub>6</sub>Yb

Molecular Weight: 722.85

Accurate Mass: 721.350893

Percentage Composition: C 54.83%; H 7.95%; O 13.28%; Yb 23.94%

Use/Importance: Commercially available nmr downfield shift reagent

Physical Description: Hygroscopic white cryst. (hexane)

Melting Point: Mp 166-169° (165-167°)

Boiling Point: Subl. 180° *in vacuo*

Solubility: Sol. C<sub>6</sub>H<sub>6</sub>, CCl<sub>4</sub>, CHCl<sub>3</sub>, MeOH, EtOH, EtOAc, hexane

Other Data: Paramagnetic,  $\mu_{\text{eff}} = 4.3\mu_{\text{B}}$

Aldrich: 16275-2

Sigma: T6762

Other: Gelest AKY922

>>Derivative: Py complex

CAS Registry Number: 33135-19-2

Molecular Formula: C<sub>38</sub>H<sub>62</sub>NO<sub>6</sub>Yb

Molecular Weight: 801.951

Accurate Mass: 800.393092

Percentage Composition: C 56.91%; H 7.79%; N 1.75%; O 11.97%; Yb 21.58%

Physical Description: White cryst.

Melting Point: Mp 130-132°

Solubility: Sol. CCl<sub>4</sub>, C<sub>6</sub>H<sub>6</sub>

Other Data:  $\mu_{\text{eff}} = 4.3, 4.5\mu_{\text{B}}$

>>Derivative: Bipy complex

CAS Registry Number: 33293-88-8

Molecular Formula: C<sub>43</sub>H<sub>65</sub>N<sub>2</sub>O<sub>6</sub>Yb

Molecular Weight: 879.036

Accurate Mass: 877.419641

Percentage Composition: C 58.75%; H 7.45%; N 3.19%; O 10.92%; Yb 19.69%

Physical Description: White cryst.

Melting Point: Mp 167-168°

Solubility: Sol. CCl<sub>4</sub>, hexane

Other Data:  $\mu_{\text{eff}} = 4.3\mu_{\text{B}}$