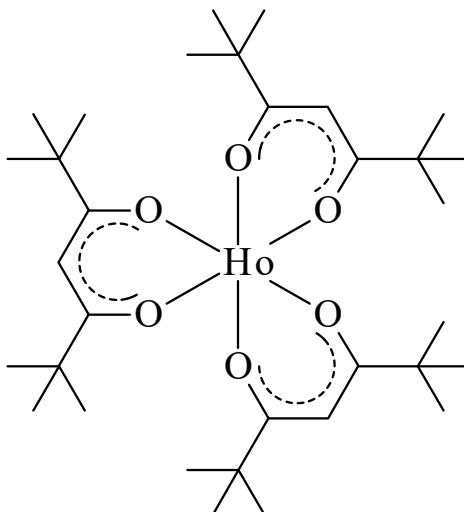




>>Entry Name: Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)holmium

Synonym(s): Tris(dipivaloylmethanido)holmium. Holmium(*III*) dipivaloylmethanide. Resolve-Al Ho. Ho(thd)<sub>3</sub>



CAS Registry Number: 15522-73-3

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

Molecular Weight: 714.74

Accurate Mass: 714.345834

Percentage Composition: C 55.46%; H 8.04%; Ho 23.08%; O 13.43%

Use/Importance: Commercially available nmr shift reagent

Physical Description: Hygroscopic yellow-white cryst.

Melting Point: Mp 180-182.5° (178-180°)

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

Aldrich: 16274-4

Sigma: T2142

Other: Gelest AKH362

>>Derivative: Py complex

CAS Registry Number: 33088-21-0

Molecular Formula: C<sub>38</sub>H<sub>62</sub>HoNO<sub>6</sub>

Molecular Weight: 793.841

Accurate Mass: 793.388033

Percentage Composition: C 57.49%; H 7.87%; Ho 20.78%; N 1.76%; O 12.09%

Physical Description: White cryst.

Melting Point: Mp 134-135°

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

Other Data: Paramagnetic,  $\mu_{\text{eff}} = 10.3\mu_{\text{B}}$

>>Derivative: Bipy complex

CAS Registry Number: 33135-15-8

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

Molecular Weight: 870.927

Accurate Mass: 870.414582

Percentage Composition: C 59.30%; H 7.52%; Ho 18.94%; N 3.22%; O 11.02%

Physical Description: Light yellow cryst.

Melting Point: Mp 188-190°

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

Other Data: Paramagnetic,  $\mu_{\text{eff}} = 10.5\mu_{\text{B}}$

>>Derivative: Phen complex

CAS Registry Number: 33293-87-7

Molecular Formula: C<sub>45</sub>H<sub>65</sub>HoN<sub>2</sub>O<sub>6</sub>

Molecular Weight: 894.949

Accurate Mass: 894.414582

Percentage Composition: C 60.39%; H 7.32%; Ho 18.43%; N 3.13%; O 10.73%

Physical Description: Light yellow cryst.

Melting Point: Mp 246-248°

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

Other Data: Paramagnetic,  $\mu_{\text{eff}} = 10.3\mu_{\text{B}}$