



>>Entry Name: **Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)neodymium(*III*)**
Synonym(s): Tris(dipivaloylmethanido)neodymium. Neodymium dipivaloylmethamide. Nd(thd)₃

CAS Registry Number: 15492-47-4

As Tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-*O,O'*)neodymium(*III*), [HRJ01-F](#) with
 $R^1 = R^2 = C(CH_3)_3$

Molecular Formula: C₃₃H₅₇NdO₆
Molecular Weight: 694.05
Accurate Mass: 691.323234
Percentage Composition: C 57.11%; H 8.28%; Nd 20.78%; O 13.83%

Aldrich: 43404-3
Fluka: 93437
Other: Gelest AKN564

>>Derivative: Dimer

Molecular Formula: C₆₆H₁₁₄Nd₂O₁₂
Molecular Weight: 1388.099
Accurate Mass: 1382.646468
Percentage Composition: C 57.11%; H 8.28%; Nd 20.78%; O 13.83%
Physical Description: Violet cryst.
Melting Point: Mp 215-218° (218-219°)
Solubility: Sol. C₆H₆, CHCl₃, MeOH, EtOH, EtOAc, hexane, CCl₄
Other Data: Paramagnetic, $\mu_{\text{eff}} = 3.6\mu_B$

>>Derivative: Phen complex

Synonym(s): (1,10-Phenanthroline-*N*¹,*N*¹⁰)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)neodymium(*III*)

CAS Registry Number: 33134-09-7
Molecular Formula: C₄₅H₆₅N₂NdO₆
Molecular Weight: 874.258
Accurate Mass: 871.391982
Percentage Composition: C 61.82%; H 7.49%; N 3.20%; Nd 16.50%; O 10.98%
Physical Description: Violet cryst.
Melting Point: Mp 222°
Solubility: Sol. CCl₄, hexane
Other Data: Paramagnetic, $\mu_{\text{eff}} = 3.7\mu_B$

>>Derivative: Py complex

Synonym(s): (Pyridine)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)neodymium(*III*)

CAS Registry Number: 33134-07-5
Molecular Formula: C₃₈H₆₂NNdO₆
Molecular Weight: 773.151
Accurate Mass: 770.365433
Percentage Composition: C 59.03%; H 8.08%; N 1.81%; Nd 18.66%; O 12.42%
Physical Description: Violet cryst.
Solubility: Sol. Py, C₆H₆

>>Derivative: Bipy complex

Synonym(s): (2,2'-Bipyridine-*N,N'*)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)neodymium(*III*)

CAS Registry Number: 33134-08-6
Molecular Formula: C₄₃H₆₅N₂NdO₆
Molecular Weight: 850.236
Accurate Mass: 847.391982
Percentage Composition: C 60.74%; H 7.71%; N 3.29%; Nd 16.96%; O 11.29%
Physical Description: Violet cryst.
Melting Point: Mp 189°
Solubility: Sol. CCl₄, hexane
Other Data: Paramagnetic, $\mu_{\text{eff}} = 3.7\mu_B$

References: