



>>Entry Name: **Tris(2,4-pentanedionato-*O,O'*)europium(III)**

Synonym(s): Europium(III) acetylacetonate. Tris(acetylacetonato)europium

CAS Registry Number: 14284-86-7

As Tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-*O,O'*)europium(III), [HRH46-M](#) with
 $R^1 = R^2 = CH_3$

Molecular Formula: C₁₅H₂₁EuO₆

Molecular Weight: 449.292

Accurate Mass: 450.05504

Percentage Composition: C 40.10%; H 4.71%; Eu 33.82%; O 21.37%

Physical Description: Moisture-sensitive solid

Melting Point: Mp 94° (cryst. form)

Solubility: Sol. acetylacetone, MeOH

Other Data: Obt. as cryst. and amorph. forms. Various hydrates claimed

Other: Gelest AKE290

>>Derivative: Monohydrate

CAS Registry Number: 52081-77-3

Molecular Formula: C₁₅H₂₃EuO₇

Molecular Weight: 467.308

Percentage Composition: C 38.55%; H 4.96%; Eu 32.52%; O 23.97%

>>Derivative: Dihydrate

Molecular Formula: C₁₅H₂₅EuO₈

Molecular Weight: 485.323

Percentage Composition: C 37.12%; H 5.19%; Eu 31.31%; O 26.37%

Melting Point: Mp 147-148°

>>Derivative: Trihydrate

CAS Registry Number: 18702-22-2

Molecular Formula: C₁₅H₂₇EuO₉

Molecular Weight: 503.338

Percentage Composition: C 35.79%; H 5.41%; Eu 30.19%; O 28.61%

Physical Description: White cryst.

Melting Point: Mp 144-145°

Solubility: Sol. MeOH

Other Data: 8-Coord. square antiprismatic struct. with two H₂O in coordination sphere

>>Derivative: Phen complex

CAS Registry Number: 17568-09-1

Molecular Formula: C₂₇H₂₉EuN₂O₆

Molecular Weight: 629.501

Accurate Mass: 630.123788

Percentage Composition: C 51.52%; H 4.64%; Eu 24.14%; N 4.45%; O 15.25%

Melting Point: Mp 226-228°

Other Data: 8-Coord. square antiprismatic struct.

>>Derivative: 2,7-Dimethyl-1,8-naphthyridine complex

CAS Registry Number: 60146-66-9

Molecular Formula: C₂₅H₃₁EuN₂O₆

Molecular Weight: 607.495

Accurate Mass: 608.139438

Percentage Composition: C 49.43%; H 5.14%; Eu 25.02%; N 4.61%; O 15.80%

Physical Description: Off-white cryst.

References: