



>>Entry Name: Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)dysprosium(III), 9Cl

Synonym(s): Dy(fod)₃, Resolve-Al DyFOD

CAS Registry Number: 18323-98-3

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), [KBB54-I](#) with
M = Dy

Molecular Formula: C₃₀H₃₀DyF₂₁O₆

Molecular Weight: 1048.03

Accurate Mass: 1049.099874

Percentage Composition: C 34.38%; H 2.89%; Dy 15.51%; F 38.07%; O 9.16%

Use/Importance: Commercially available. Forms binuclear nmr shift reagents with Ag(*I*) compds.

Physical Description: Hygroscopic white cryst. (CH₂Cl₂)

Melting Point: Mp 180-188°

Solubility: Sol. CHCl₃, CH₂Cl₂

Other Data: Forms adducts with Lewis bases. Volatile *in vacuo*

Aldrich: 23728-0

Sigma: T2892

>>Derivative: Monohydrate

CAS Registry Number: 18284-87-2

Molecular Formula: C₃₀H₃₂DyF₂₁O₇

Molecular Weight: 1066.045

Percentage Composition: C 33.80%; H 3.03%; Dy 15.24%; F 37.42%; O 10.51%

Physical Description: White solid

Melting Point: Mp 103-107°

Solubility: Sol. CH₂Cl₂, MeOH

Other Data: Loses H₂O *in vacuo* over P₂O₅

>>Derivative: Dihydrate

CAS Registry Number: 35887-41-3

Molecular Formula: C₃₀H₃₄DyF₂₁O₈

Molecular Weight: 1084.06

Percentage Composition: C 33.24%; H 3.16%; Dy 14.99%; F 36.80%; O 11.81%

Physical Description: White solid

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 561A, (*ir*)

Springer, C.S. *et al.*, *Inorg. Chem.*, 1967, **6**, 1105, (*synth*)

Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713, (*synth*)

Risby, T.H. *et al.*, *Anal. Chem.*, 1974, **46**, 726, (*ms*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, 1981, **D3**, 155, (*rev*)

Wenzel, T.J., *J.O.C.*, 1984, **49**, 1834, (*use*)