



>>Entry Name: Ytterbium(III) trifluoromethanesulfonate

Synonym(s): Ytterbium triflate

CAS Registry Number: 54761-04-5

Related CAS Registry Numbers(s): 85920-58-7

$\text{Yb}(\text{OSO}_2\text{CF}_3)_3$

Molecular Formula: $\text{C}_3\text{F}_9\text{O}_9\text{S}_3\text{Yb}$

Molecular Weight: 620.251

Accurate Mass: 618.79145

Percentage Composition: C 5.81%; F 27.57%; O 23.22%; S 15.51%; Yb 27.90%

Use/Importance: Used in template synth. Catalyst for allylations

Other Data: Forms complexes with various *O*-donor ligands. Affords YbF_3 on pyrolysis

Aldrich: 43059-5

Fluka: 95790

Sigma: Y0501

>>Derivative: Nonahydrate

CAS Registry Number: 67878-38-0

Physical Description: Colourless cryst.

Solubility: Sol. H_2O , EtOH, MeCN

Other Data: Prob. contains $[\text{Yb}(\text{OH}_2)_9]^{3(+)}$ ions

References:

U.S. Pat., 1971, 3 615 169; *CA*, 1972, **76**, 5436, (*synth, use*)

Massaux, J. *et al.*, *Anal. Chim. Acta*, 1974, **73**, 416, (*synth, complex, electrochem*)

Roberts, J.E. *et al.*, *Thermochim. Acta*, 1978, **25**, 233, (*synth, tga*)

Vincentini, G. *et al.*, *J. Less-Common Met.*, 1983, **94**, 285, (*synth, complex*)

Chatterjee, A. *et al.*, *Acta Cryst. B*, 1988, **44**, 381, (*cryst struct*)

Smith, P.H. *et al.*, *Inorg. Chem.*, 1988, **27**, 4154, (*use*)

Yang, Y. *et al.*, *Chem. Comm.*, 1997, 1651-1652, (*use, allylation catalyst*)