



>>Entry Name: Yttrium sulfate ($\text{Y}_2(\text{SO}_4)_3$)

CAS Registry Number: 13510-71-9

$\text{Y}_2(\text{SO}_4)_3$

Molecular Formula: $\text{O}_{12}\text{S}_3\text{Y}_2$

Molecular Weight: 466.003

Accurate Mass: 465.666888

Percentage Composition: O 41.20%; S 20.64%; Y 38.16%

Physical Description: V. hygroscopic white solid

Melting Point: Mp 800 dec.°

Solubility: Sol. H_2O

>>Derivative: Octahydrate

CAS Registry Number: 7446-33-5

Physical Description: Colourless cryst.

Boiling Point: Bp 700° dec.

Solubility: Sol. H_2O

Other Data: Loses $8\text{H}_2\text{O}$ at 120°. 8-Coordinate, geometry intermed. between dodecahedron and square antiprism

Aldrich: 32607-0

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1244D, (ir)

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Postmus, C. *et al.*, *J. Chem. Phys.*, 1968, **48**, 3605, (ir)

Hiltunen, L. *et al.*, *Cryst. Struct. Commun.*, 1976, **5**, 553, (cryst struct)

Pokrovskii, A.N. *et al.*, *Zh. Neorg. Khim.*, 1976, **21**, 567; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1976, **21**, 305, (tga, dta)

Bukovec, N. *et al.*, *CA*, 1977, **86**, 64719, (synth, dec)

Sirotinkiu, S.R. *et al.*, *Zh. Neorg. Khim.*, 1978, **23**, 1139, (struct)

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