



>>Entry Name: Samarium(III) hydroxide (Sm(OH)₃)

Synonym(s): Samarium trihydroxide

CAS Registry Number: 20403-06-9

Sm(OH)₃

Molecular Formula: H₃O₃Sm

Molecular Weight: 201.382

Accurate Mass: 202.927949

Percentage Composition: H 1.50%; O 23.83%; Sm 74.66%

Physical Description: Pale yellow solid

Solubility: Insol. H₂O

Other Data: K_{sp} = 6 x 10⁻²². Absorbs atmospheric CO₂. Dec. at 220°

References:

Mroczkowskii, S. *et al.*, *J. Cryst. Growth*, 1970, **7**, 333, (*synth*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, Suppl. Vol., 1974, **C2**, 57, (*rev*)

Beall, G.W. *et al.*, *J. Inorg. Nucl. Chem.*, 1977, **39**, 65, (*cryst struct*)

Swanson, B.I. *et al.*, *J. Inorg. Nucl. Chem.*, 1978, **40**, 694, (*Raman, ir*)