



>>Entry Name: Yttrium(*III*) carbonate

CAS Registry Number: 556-28-5

Related CAS Registry Numbers(s): 5970-44-5 19512-16-4 36833-38-2

$\text{Y}_2(\text{CO}_3)_3$

Molecular Formula: $\text{C}_3\text{O}_9\text{Y}_2$

Molecular Weight: 357.839

Accurate Mass: 357.765933

Percentage Composition: C 10.07%; O 40.24%; Y 49.69%

Use/Importance: Used in synth. of Y_2O_3 etc. Commercially available as hydrate

Physical Description: Colourless solid

>>Derivative: Hydrate

CAS Registry Number: 38245-39-5

Physical Description: Colourless solid

Solubility: Insol. H_2O

Other Data: Compd. has composition $\text{Y}_2(\text{CO}_3)_3 \cdot 2.35\text{H}_2\text{O}$ as cryst. from soln.

>>Derivative: Mineral

Synonym(s): Tengerite

CAS Registry Number: 12199-46-1

Molecular Formula: $\text{C}_4\text{H}_9\text{CaO}_{18}\text{Y}_3$

Molecular Weight: 651.9

Percentage Composition: C 7.37%; H 1.39%; Ca 6.15%; O 44.18%; Y 40.91%

Source/Synthesis: Occurs in Sweden, Japan, Quebec and Texas

Physical Description: White powdery cryst.

Other Data: Formulated as $\text{CaY}_3(\text{CO}_3)_4(\text{OH})_3 \cdot 3\text{H}_2\text{O}$

References:

Head, E.L., *Inorg. Nucl. Chem. Lett.*, 1966, **2**, 33, (*synth*)

Goldsmith, J.A. *et al.*, *Spectrochim. Acta A*, 1967, **23**, 1909, (*ir*)

Nagashima, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 2476; 1973, **46**, 152, (*synth, ir, tga, dta, struct*)

Japan. Pat., 1978, 78 95 900; *CA*, **90**, 57337, (*use*)

Tarela, J.A.K. *et al.*, *J. Cryst. Growth*, 1980, **49**, 761, (*synth, ir, struct*)

Firshing, F.H. *et al.*, *J. Chem. Eng. Data*, 1986, **31**, 40, (*soly*)