



>>Entry Name: Aluminium carbonate

Synonym(s): Carbonic acid aluminium salt (3:2), 11Cl

CAS Registry Number: 14455-29-9

Related CAS Registry Numbers(s): 53547-27-6

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

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

Molecular Weight: 233.991

Accurate Mass: 233.917313

Percentage Composition: C 15.40%; Al 23.06%; O 61.54%

General Statement: More commonly found as basic carbonate

Source/Synthesis: Synth. from aq. $\text{Al}^{3(+)}$ + $\text{NaHCO}_3/\text{Na}_2\text{CO}_3$

Use/Importance: Used as Al source in many industries

>>Variant: Basic aluminium carbonate

Synonym(s): Basaljel

CAS Registry Number: 1339-92-0

Molecular Formula: $\text{CH}_{30}\text{Al}_4\text{O}_{23}$

Molecular Weight: 518.16

Accurate Mass: 518.043951

Percentage Composition: C 2.32%; H 5.84%; Al 20.83%; O 71.02%

General Statement: May be hydroxycarbonate

Source/Synthesis: Synth. from $\text{NH}_4\text{Al}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ + NH_4HCO_3

Biological Use/Importance: Antacid. Phosphorus-binding agent. Prevents recurrent renal phosphatic calculi

References:

Dobrev, K. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1981, 92-99; *CA*, **96**, 113852e, (*basic carbonate*)

Feldkamp, J.R. *et al.*, *J. Pharm. Sci.*, 1981, **70**, 638-640, (*activity*)

Sema, C.J. *et al.*, *J. Pharm. Sci.*, 1983, **72**, 769-771, (*synth, activity*)

Packter, A. *et al.*, *Cryst. Res. Technol.*, 1987, **22**, 1015-1022; *CA*, **108**, 48028, (*synth*)