



>>Entry Name: Aluminium citrate

Synonym(s): 2-Hydroxy-1,2,3-propanetricarboxylic acid aluminium salt (1:1)

CAS Registry Number: 31142-56-0

$\text{Al}[\text{OOCCH}_2\text{COH}(\text{COO})\text{CH}_2\text{COO}]$

Molecular Formula: $\text{C}_6\text{H}_5\text{AlO}_7$

Molecular Weight: 216.083

Accurate Mass: 215.985069

Percentage Composition: C 33.35%; H 2.33%; Al 12.49%; O 51.83%

General Statement: Dimeric. Exists as hydroxy-carboxylate chelate

>>Derivative: Dimer

CAS Registry Number: 93355-14-7

Molecular Formula: $\text{C}_{12}\text{H}_{10}\text{Al}_2\text{O}_{14}$

Molecular Weight: 432.166

Accurate Mass: 431.970138

Percentage Composition: C 33.35%; H 2.33%; Al 12.49%; O 51.83%

Source/Synthesis: Synth. by addn. of citric acid to a hot aq. suspension of freshly prepared $\text{Al}(\text{OH})_3$

Physical Description: Microcryst. powder + $6\text{H}_2\text{O}$

Solubility: Sol. H_2O

Other Data: Incorr. indexed by CAS as the monomer trihydrate

References:

Sheikh-Osman, A.A. *et al.*, *J.C.S. Dalton*, 1993, 3229, (*synth, ir, pmr*)