



>>Entry Name: Aluminium metaphosphate

Synonym(s): Metaphosphoric acid aluminium salt, 12Cl. Aluminium trimetaphosphate

CAS Registry Number: 13776-88-0

Extra CAS Registry Numbers(s): 32823-06-6

$\text{Al}(\text{PO}_3)_3$

Molecular Formula: AlO_9P_3

Molecular Weight: 263.897

Accurate Mass: 263.85706

Percentage Composition: Al 10.22%; O 54.56%; P 35.21%

Use/Importance: Constit. of glasses, coatings, binders and ceramics. Catalyst for esterifications and oxidation of alkenes

Other Data: Several forms descr. Aldrich: 34491-5

Fluka: 6260

>>Derivative: Monoclinic form

Source/Synthesis: Obt. from Al_2O_3 and HPO_3 (melt)

Other Data: Struct. comprises chains of PO_4 tetrahedra connected by AlO_6 octahedra

References:

D'Yvoire, F., *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1960, **251**, 2182, (*polymorphs*)

van der Meer, H., *Acta Cryst. B*, 1976, **32**, 2423, (*cryst struct*)

Morris, J.H. *et al.*, *Chem. Soc. Rev.*, 1977, **6**, 173, (*rev*)