



>>Entry Name: Aluminium phenoxide

Synonym(s): Phenol, aluminium salt (3:1). Triphenoxyaluminium

CAS Registry Number: 15086-27-8

Al(OPh)_3

Molecular Formula: $\text{C}_{18}\text{H}_{15}\text{AlO}_3$

Molecular Weight: 306.296

Accurate Mass: 306.083659

Percentage Composition: C 70.58%; H 4.94%; Al 8.81%; O 15.67%

Source/Synthesis: Synth. from $\text{Al(OPr}^i)_3$ + phenol or from $\text{Al/Hg}_2\text{Cl}_2$ and phenol in refluxing THF

Use/Importance: Catalyst for alkylation of phenols

Physical Description: Air- and moisture-sensitive greyish-white or colourless powder

Melting Point: Mp 181°

Solubility: Sol. MeOH; insol. toluene

Other: Gelest AKA082

References:

Berny, M.-F. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1967, **264**, 1734, (synth, powder struct, catal)

Berny, M.-F. *et al.*, *Bull. Soc. Chim. Fr.*, 1968, 4709; 1975, 47, (synth, struct, reactions)

Meese-Markscheffel, J.A. *et al.*, *Polyhedron*, 1994, **13**, 1045, (pmr, cmr, ms)