



>>Entry Name: Ammonium hexafluorophosphate(1-), 9Cl, 8Cl

CAS Registry Number: 16941-11-0

[NH₄]PF₆

Molecular Formula: F₆H₄NP

Molecular Weight: 163.002

Accurate Mass: 162.998554

Percentage Composition: F 69.93%; H 2.47%; N 8.59%; P 19.00%

Source/Synthesis: Synth. from NH₄F + PCl₅

Use/Importance: May be used to make other hexafluorophosphates

Physical Description: Thick plates or square flakes

Solubility: Sol. Me₂CO, MeOH, EtOH. V. sol. H₂O (74.8g per 100 cm³ at 20°)

Other Data: Slowly hydrol. by boiling with strong aq. acids. Complexes with NH₃

Aldrich: 20113-8

Fluka: 9820

Sigma: A8024

References:

Inorg. Synth., 1950, **3**, 111, (*synth*)

Bode, H. *et al.*, *Z. Anorg. Allg. Chem.*, 1951, **265**, 229, (*cryst struct*)

Gmelin Handbook Inorg. Chem., Syst. No. 16, 1965, 381, (*rev, bibl*)

Wiecker, W. *et al.*, *Z. Naturforsch., B*, 1966, **21**, 1103, (*P-31 nmr*)

Shurvell, H.F., *Can. Spectrosc.*, 1967, **12**, 156, (*ir, Raman*)

Mellor Compr. Treat. Inorg. Theor. Chem., 1971, **8/III**, 859, (*rev*)

Heyns, A.M. *et al.*, *Spectrochim. Acta A*, 1973, **29**, 1163, (*ir, Raman*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **1**, 213, (*synth*)

Mohamed, K.S. *et al.*, *J. Fluorine Chem.*, 1983, **23**, 509, (*synth*)

Nnop, O. *et al.*, *Can. J. Chem.*, 1985, **63**, 3328, (*pmr, F-19 nmr, struct*)