>>**Entry Name: Fluorophosphoric acid**
Synonym(s): Phosphorofluoridic acid, $^{9Cl,\ 8Cl}$. Fluorodihydroxyoxophosphorus(*V*). Fluorodihydroxyphosphine oxide

CAS Registry Number: 13537-32-1
$(HO)_2P(O)F$

Molecular Formula: FH_2O_3P
Molecular Weight: 99.986
Accurate Mass: 99.97256
Percentage Composition: F 19.00%; H 2.02%; O 48.00%; P 30.98%
Source/Synthesis: Synth. from H_3PO_4-HF-H_2O system; From Phosphorodifluoridic acid HTV80-Y with N_2O_4 in HNO_3; or from Ag salt + HCl or H_2S; and from $POCl_3$ or $P_2O_3Cl_4$ with HF
Use/Importance: Prevents tooth enamel dissolution
Physical Description: Colourless oily acid of mod. strength. Slowly hydrol. in neutral or weakly alkaline soln.
Other Data: Solidifies (without cryst.) at 70°. Stable to 185°. Anhydrous acid and v. conc. aq. solns. attack most metals and alloys incl. stainless steels; Ag, Pt, Al and polythene are inert. Dil. acid attacks Al, Ti

Aldrich: 32474-4

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