>>**Entry Name: Triphosphoric acid,** 9Cl, 8Cl
ENTRY UNDER REVIEW
Synonym(s): Decaoxotriphosphoric(*V,V,V*) acid. P^5-O-P^5-O-P^5 acid. Tripolyphosphoric acid

CAS Registry Number: 10380-08-2
$(HO)_2P(O)OP(O)(OH)OP(O)(OH)_2$

Molecular Formula: $H_5O_{10}P_3$
Molecular Weight: 257.955
Accurate Mass: 257.909561
Percentage Composition: H 1.95%; O 62.02%; P 36.02%

Source/Synthesis: Obt. in aq. soln. by ion-exchange using Potassium triphosphate ($K_5(P_3O_{10})$) HTW36-U or Zinc phosphate ($Zn_3(PO_4)_2$) HTN33-Y. Also from the penta-Na salt via the Cu salt
pKa Value: pK_{a2} 0.89; pK_{a3} 4.09; pK_{a4} 6.98; pK_{a5} 9.93 (25°)
Other Data: Degrades easily even at low temps.

>>**Derivative:** Penta-NH_4 salt

>>**Derivative:** Penta-Na salt

>>**Derivative:** Penta-K salt

References:

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Johansson, A. *et al.*, *Talanta*, 1963, **10**, 769
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McNabb, W.M. *et al.*, *J. Inorg. Nucl. Chem.*, 1968, **30**, 1585
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