# Polyatomic Ion List – AP Chemistry

+1
ammonium, $NH_4^+$
hydronium, $H_3O^+$
-1
acetate, $C_2H_3O_2^-$, or $CH_3COO^-$
bromate, $BrO_3^-$
chlorate, $ClO_3^-$
chlorite, $ClO_2^-$
cyanide, $CN^-$
hydrogen carbonate, $HCO_3^-$ (also called bicarbonate)
hydroxide, $OH^-$
hypochlorite, $ClO^-$
iodate, $IO_3^-$
nitrate, $NO_3^-$
nitrite, $NO_2^-$
permanganate, $MnO_4^-$
perchlorate, $ClO_4^-$
thiocyanate, $SCN^-$

-2
carbonate, $CO_3^{-2}$
chromate, $CrO_4^{-2}$
dichromate, $Cr_2O_7^{-2}$
oxalate, $C_2O_4^{-2}$
peroxide, $O_2^{-2}$
sulfate, $SO_4^{-2}$
sulfite, $SO_3^{-2}$

-3
phosphate, $PO_4^{-3}$
phosphite, $PO_3^{-3}$
arsenate, $AsO_4^{-3}$

-ite is one less oxygen than the –ate
Hypo- is one less oxygen than the –ite
Per- is one more oxygen than the –ate

Hydrogen can be added to -2 or -3 ions to make a "new ion" i.e. $H_2PO_4^{-1}$ is dihydrogen phosphate (note the – charge went up 1 for each $H^+$ added)