

Common Polyatomic Ions: Names, Formulas and Charges of Polyatomic Ions

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This is a list of some of the most common polyatomic ions. It is worth committing the polyatomic ions to memory, including their molecular formulas and ionic charge.

Polyatomic Ion Charge = +1

ammonium - NH_4^+

Polyatomic Ion Charge = -1

acetate - $\text{C}_2\text{H}_3\text{O}_2^-$

bicarbonate (or hydrogen carbonate) - HCO_3^-

bisulfate (or hydrogen sulfate) - HSO_4^-

chlorate - ClO_3^-

chlorite - ClO_2^-

cyanate - OCN^-

cyanide - CN^-

dihydrogen phosphate - H_2PO_4^-

hydroxide - OH^-

nitrate - NO_3^-

nitrite - NO_2^-

perchlorate - ClO_4^-

permanganate - MnO_4^-

thiocyanate - SCN^-

Polyatomic Ion Charge = -2

carbonate - CO_3^{2-}

chromate - CrO_4^{2-}

dichromate - $\text{Cr}_2\text{O}_7^{2-}$

hydrogen phosphate - HPO_4^{2-}

peroxide - O_2^{2-}

sulfate - SO_4^{2-}

sulfite - SO_3^{2-}

thiosulfate - $\text{S}_2\text{O}_3^{2-}$

Polyatomic Ion Charge = -3

borate - BO_3^{3-}

phosphate - PO_4^{3-}