

# Summary of Common Single and Polyatomic Ion Names

## Positive Ions:

### Single Ions

Hydrogen	H <sup>+</sup>
Lithium	Li <sup>+</sup>
Sodium	Na <sup>+</sup>
Potassium	K <sup>+</sup>
Silver	Ag <sup>+</sup>
Copper (I)	Cu <sup>+</sup>
Copper (II)	Cu <sup>2+</sup>
Mercury (I)	Hg <sup>+</sup>
Mercury (II)	Hg <sup>2+</sup>
Magnesium	Mg <sup>2+</sup>
Calcium	Ca <sup>2+</sup>
Barium	Ba <sup>2+</sup>
Zinc	Zn <sup>2+</sup>
Cadmium	Cd <sup>2+</sup>
Iron (II)	Fe <sup>2+</sup>
Iron (III)	Fe <sup>3+</sup>
Aluminum	Al <sup>3+</sup>
Manganese (II)	Mn <sup>2+</sup>
Cobalt (II)	Co <sup>2+</sup>
Nickel (II)	Ni <sup>2+</sup>
Tin (II)	Sn <sup>2+</sup>
Tin (IV)	Sn <sup>4+</sup>
Lead (II)	Pb <sup>2+</sup>
Lead (IV)	Pb <sup>4+</sup>
Chromium (II)	Cr <sup>2+</sup>
Chromium (III)	Cr <sup>3+</sup>
Chromium (VI)	Cr <sup>6+</sup>
Gold (I)	Au <sup>+</sup>
Gold (III)	Au <sup>3+</sup>

### Polyatomic Ions

Ammonium	(NH <sub>4</sub> ) <sup>+</sup>
Mercurous	(Hg <sub>2</sub> ) <sup>2+</sup>

## Negative Ions:

### Single Ions

* Fluorine	F <sup>-</sup>
* Chlorine	Cl <sup>-</sup>
* Bromine	Br <sup>-</sup>
* Iodine	I <sup>-</sup>
Oxygen	O <sup>2-</sup>
* Sulfur	S <sup>2-</sup>
Nitrogen	N <sup>3-</sup>
Phosphorus	P <sup>3-</sup>

### Polyatomic Ions

Acetate	(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sup>-</sup>
Borate	(BO <sub>3</sub> ) <sup>3-</sup>
Carbonate	(CO <sub>3</sub> ) <sup>2-</sup>
Chlorate	(ClO <sub>3</sub> ) <sup>-</sup>
Chromate	(CrO <sub>4</sub> ) <sup>2-</sup>
Cyanide	(CN) <sup>-</sup>
Dichromate	(Cr <sub>2</sub> O <sub>7</sub> ) <sup>2-</sup>
Hydrogen Carbonate (or bicarbonate)	(HCO <sub>3</sub> ) <sup>-</sup>
Hydrogen Sulfate (or bisulfate)	(HSO <sub>4</sub> ) <sup>-</sup>
Hydroxide	(OH) <sup>-</sup>
Peroxide	(O <sub>2</sub> ) <sup>2-</sup>
Hypochlorite	(ClO) <sup>-</sup>
Nitrite	(NO <sub>2</sub> ) <sup>-</sup>
Nitrate	(NO <sub>3</sub> ) <sup>-</sup>
Perchlorate	(ClO <sub>4</sub> ) <sup>-</sup>
Permanganate	(MnO <sub>4</sub> ) <sup>-</sup>
Phosphate	(PO <sub>4</sub> ) <sup>3-</sup>
Phosphite	(PO <sub>3</sub> ) <sup>3-</sup>
Sulfate	(SO <sub>4</sub> ) <sup>2-</sup>
Sulfite	(SO <sub>3</sub> ) <sup>2-</sup>
Silicate	(SiO <sub>3</sub> ) <sup>2-</sup>

## General Naming Rule

### Acids

- \* - add prefix *hypo* to root element
- add *-ic* to negative ions ending in *ate* or *ide*
- add *-ous* to negative ions ending in *ite*

### Bases

List the metal and then hydroxide