

Common Polyatomic Ions					
Charge	Name	Formula	Charge	Name	Formula
1+	ammonium	NH_4^+	1-	perchlorate	ClO_4^-
1-	acetate	CH_3CO_2^-	1-	periodate	IO_4^-
1-	bromate	BrO_3^-	1-	permanganate	MnO_4^-
1-	chlorate	ClO_3^-	2-	carbonate	CO_3^{-2}
1-	chlorite	ClO_2^-	2-	chromate	CrO_4^{-2}
1-	cyanide	CN^-	2-	dichromate	$\text{Cr}_2\text{O}_7^{-2}$
1-	bicarbonate (hydrogen carbonate)	HCO_3^-	2-	oxalate	$\text{C}_2\text{O}_4^{-2}$
1-	hydrogen sulfate	HSO_4^-	2-	sulfate	SO_4^{-2}
1-	hydroxide	OH^-	2-	sulfite	SO_3^{-2}
1-	hypochlorite	ClO^-	2-	thiosulfate	$\text{S}_2\text{O}_3^{-2}$
1-	iodate	IO_3^-	3-	arsenate	AsO_4^{-3}
1-	nitrate	NO_3^-	3-	borate	BO_3^{-3}
1-	nitrite	NO_2^-	3-	phosphate	PO_4^{-3}

Nomenclature Rules Summary:

1. Acids
 - a. Binary acid: hydro ____ ic acid
 - b. Oxy acid:
 - i. hypo ____ ite hypo ____ ous acid
 - ii. -ite ____ ous acid
 - iii. -ate: ____ ic acid
 - iv. per ____ ate per ____ ic acid
2. Covalent (num. prefix) ____ (num. prefix) ____ ide
(if first number prefix is “mono”, drop it)
3. Ionic
 - a. Binary compound ____ ____ ide
 - b. Polyatomic ion ____ name from chart
 - c. Metal binary ____ (NUM) ____ ide
 - Metal & polyatomic ____ (NUM) name from chart
 - (NUM) = valence charge of metal