Table of Common Ion Charges

Stock System

Roman Numerals are used in naming compounds containing metals that form more than one positive ion.

example 1:

CuCl is either:

cuprous chloride
or
copper I chloride

example 2:

$CuCl_2$ is either:

cupric chloride
or
copper II chloride

Note:

ous- lower charge
ic- higher charge

+ 1 Ions

Hydrogen	H
Lithium	Li
Sodium	Na
Potassium	K
Rubidium	Rb
Cesium	Cs
Cuprous	*Cu*
Silver	Ag
Ammonium	NH_4
**Mercurous*	Hg_2

**The Hg_2 ion is in the +1 column because the effective charge on each atom is +1. The total charge is +2.*

+ 2 Ions

Magnesium	Mg
Calcium	Ca
Strontium	Sr
Barium	Ba
Radium	Ra
Chromous	*Cr*
Cupric	*Cu*
Mercuric	*Hg*
Ferrous	*Fe*
Stannous	*Sn*
Zinc	Zn
Nickel	Ni
Cadmium	Cd
Cobalt	Co
Beryllium	Be
Plumbous	*Pb*

+ 3 Ions

Aluminum	Al
Chromic	*Cr*
Ferric	*Fe*
Antimony	Sb
Bismuth	Bi
Arsenic	As

+ 4 Ions

Stannic	*Sn*
Plumbic	*Pb*
Carbon	C
Silicon	Si

- 1 Ions

Fluoride	F
Iodate	IO_3
Chloride	Cl
Bromide	Br
Iodide	I
Hydroxide	OH
Nitrate	NO_3
Nitrite	NO_2
Acetate	CH_3COO
Permanganate	MnO_4
Bisulfate	HSO_4
Bicarbonate	HCO_3
Cyanide	CN
Thiocyanate	SCN

- 1 Ions cont.

Perchlorate	ClO_4
Chlorate	ClO_3
Chlorite	ClO_2
Hypochlorite	ClO
Perhennate	ReO_4
Hydride	H
Bromate	BrO_3
Bisulfide	HS
Bisulfite	HSO_3

- 2 Ions

Sulfate	SO_4
Sulfite	SO_3
Carbonate	CO_3
Chromate	CrO_4
Dichromate	Cr_2O_7
Sulfide	S
Oxide	O
Thiosulfate	S_2O_3
Thiosulfite	S_2O_2
Selenate	SeO_4
Oxalate	C_2O_4
Tartrate	$C_4H_4O_6$
Sulfide	S
Peroxide	O_2

- 3 Ions

Phosphate	PO_4
Phosphide	P
Arsenite	AsO_3
Arsenate	AsO_4
Borate	BO_3
Phosphite	PO_3
Nitride	N
Ferricyanide	$Fe(CN)_6$

- 4 Ions

Ferrocyanide	$Fe(CN)_6$
Silicate	SiO_4

Common Acids

Acetic	$HC_2H_3O_2$
Carbonic	H_2CO_3
Hydrochloric	HCl
Nitric	HNO_3
Sulfuric	H_2SO_4
Phosphoric	H_3PO_4

Common Greek Prefixes

1 mono	**6 hexa**
2 di	**7 hepta**
3 tri	**8 octa**
4 tetra	**9 nona**
5 penta	**10 deca**

Positive ions are commonly refered to as cations and negative ions are commonly called anions.

The Noble Gases do not generally form compounds due to their filled set of "p" orbitals.

The prefix "bi" generally means that a hydrogen atom has been added to the root ion. eg. CO_3 is a carbonate while HCO_3 is a bicarbonate.

"thio" pertains to sulfur.