

Ionic Charges of Representative Elements							
1A	2A	3A	4A	5A	6A	7A	0
H ⁺							H ⁻
Li ⁺	Be ²⁺			N ³⁻	O ²⁻	F ⁻	
Na ⁺	Mg ²⁺	Al ³⁺		P ³⁻	S ²⁻	Cl ⁻	
K ⁺	Ca ²⁺				Se ²⁻	Br ⁻	
Rb ⁺	Sr ²⁺					I ⁻	
Cs ⁺	Ba ²⁺						

Binary

Prefixes Used in Naming Molecular Compounds	
Prefix	Number
mono-	1
di-	2
tri-	3
tetra-	4
penta-	5
hexa-	6
hepta-	7
octa-	8
nona-	9
deca-	10

Formulas and Names of Common Metal Ions with More than One Ionic Charge		
Formula	Stock name	Classical name
Cu ¹⁺	Copper(I) ion	Cuprous ion
Cu ²⁺	Copper(II) ion	Cupric ion
Fe ²⁺	Iron(II) ion	Ferrous ion
Fe ³⁺	Iron(III) ion	Ferric ion
*Hg ₂ ²⁺	Mercury(I) ion	Mercurous ion
Hg ²⁺	Mercury(II) ion	Mercuric ion
Pb ²⁺	Lead(II) ion	Plumbous ion
Pb ⁴⁺	Lead(IV) ion	Plumbic ion
Sn ²⁺	Tin(II) ion	Stannous ion
Sn ⁴⁺	Tin(IV) ion	Stannic ion
Cr ²⁺	Chromium(II) ion	Chromous ion
Cr ³⁺	Chromium(III) ion	Chromic ion
Mn ²⁺	Manganese(II) ion	Manganous ion
Mn ³⁺	Manganese(III) ion	Manganic ion
Co ²⁺	Cobalt(II) ion	Cobaltous ion
Co ³⁺	Cobalt(III) ion	Cobaltic ion

Also: Ag⁺ and Zn²⁺

* diatomic

Common Polyatomic Ions					
1- charge		2- charge		3- charge	
Formula	Name	Formula	Name	Formula	Name
H ₂ PO ₄ ⁻	Dihydrogen phosphate	HPO ₄ ²⁻	Hydrogen phosphate	PO ₄ ³⁻	Phosphate
C ₂ H ₃ O ₂ ⁻	Acetate	C ₂ O ₄ ²⁻	Oxalate	PO ₃ ³⁻	Phosphite
HSO ₃ ⁻	Hydrogen sulfite (bisulfite)	SO ₃ ²⁻	Sulfite		
HSO ₄ ⁻	Hydrogen sulfate (bisulfate)	SO ₄ ²⁻	Sulfate		
HCO ₃ ⁻	Hydrogen carbonate (bicarbonate)	CO ₃ ²⁻	Carbonate		
NO ₂ ⁻	Nitrite	O ₂ ²⁻	Peroxide		
NO ₃ ⁻	Nitrate	CrO ₄ ²⁻	Chromate		
CN ⁻	Cyanide	Cr ₂ O ₇ ²⁻	Dichromate		
OH ⁻	Hydroxide	SiO ₃ ²⁻	Silicate		
MnO ₄ ⁻	Permanganate				
ClO ⁻	Hypochlorite				
ClO ₂ ⁻	Chlorite				
ClO ₃ ⁻	Chlorate				
ClO ₄ ⁻	Perchlorate				

The formula for the acetate ion can also be written as CH₃CO₂⁻ or as CH₃COO⁻

1+ charge	
Formula	Name
NH ₄ ⁺	Ammonium