

TABLE 2.3 Common Monatomic Cations and Anions

Cation	Name	Anion	Name
H ⁺	Hydrogen	H ⁻	Hydride
Li ⁺	Lithium	F ⁻	Fluoride
Na ⁺	Sodium	Cl ⁻	Chloride
K ⁺	Potassium	Br ⁻	Bromide
Cs ⁺	Cesium	I ⁻	Iodide
Be ²⁺	Beryllium	O ²⁻	Oxide
Mg ²⁺	Magnesium	S ²⁻	Sulfide
Ca ²⁺	Calcium	N ³⁻	Nitride
Ba ²⁺	Barium	P ³⁻	Phosphide
Al ³⁺	Aluminum		
Ag ⁺	Silver		

TABLE 2.4 Common Type II Cations

Ion	Systematic Name
Fe ³⁺	Iron(III)
Fe ²⁺	Iron(II)
Cu ²⁺	Copper(II)
Cu ⁺	Copper(I)
Co ³⁺	Cobalt(III)
Co ²⁺	Cobalt(II)
Sn ⁴⁺	Tin(IV)
Sn ²⁺	Tin(II)
Pb ⁴⁺	Lead(IV)
Pb ²⁺	Lead(II)
Hg ²⁺	Mercury(II)
Hg ₂ ^{2+*}	Mercury(I)
Ag ⁺	Silver†
Zn ²⁺	Zinc†
Cd ²⁺	Cadmium†

TABLE 2.5 Common Polyatomic Ions

Ion	Name	Ion	Name
Hg ₂ ²⁺	Mercury(I)	NCS ⁻	Thiocyanate
NH ₄ ⁺	Ammonium	CO ₃ ²⁻	Carbonate
NO ₂ ⁻	Nitrite	HCO ₃ ⁻	Hydrogen carbonate (bicarbonate is a widely used common name)
NO ₃ ⁻	Nitrate	ClO ⁻	Hypochlorite
SO ₃ ²⁻	Sulfite	ClO ₂ ⁻	Chlorite
SO ₄ ²⁻	Sulfate	ClO ₃ ⁻	Chlorate
HSO ₄ ⁻	Hydrogen sulfate (bisulfate is a widely used common name)	ClO ₄ ⁻	Perchlorate
OH ⁻	Hydroxide	C ₂ H ₃ O ₂ ⁻	Acetate
CN ⁻	Cyanide	MnO ₄ ⁻	Permanganate
PO ₄ ³⁻	Phosphate	Cr ₂ O ₇ ²⁻	Dichromate
HPO ₄ ²⁻	Hydrogen phosphate	CrO ₄ ²⁻	Chromate
H ₂ PO ₄ ⁻	Dihydrogen phosphate	O ₂ ²⁻	Peroxide
		C ₂ O ₄ ²⁻	Oxalate

TABLE 2.7 Names of Acids* That Do Not Contain Oxygen

Acid	Name
HF	Hydrofluoric acid
HCl	Hydrochloric acid
HBr	Hydrobromic acid
HI	Hydroiodic acid
HCN	Hydrocyanic acid
H ₂ S	Hydrosulfuric acid

TABLE 2.8 Names of Some Oxygen-Containing Acids

Acid	Name
HNO ₃	Nitric acid
HNO ₂	Nitrous acid
H ₂ SO ₄	Sulfuric acid
H ₂ SO ₃	Sulfurous acid
H ₃ PO ₄	Phosphoric acid
HC ₂ H ₃ O ₂	Acetic Acid