

Common Ion Table

These are not pure elements! These are ions formed when one or more elements lose or gain electrons. Ions generally exist in solutions and in ionic compounds. Copper ions (Cu^+ & Cu^{2+}) are not the same as ordinary copper (Cu), the metal found in older pennies. Likewise, the oxide and peroxide ions (O^{2-} & O_2^{2-}) are not the same as ordinary oxygen (O_2), the gas we all breathe. Polyatomic ions are those that include more than one atom (H_3O^+).

Cations (+)

1+ Ions	Ammonium	NH_4^+
	Copper(I)	Cu^+
	Hydrogen	H^+
	Hydronium	H_3O^+
	Potassium	K^+
	Silver	Ag^+
	Sodium	Na^+
	Mercury (I)	Hg_2^{2+*}

2+ Ions	Barium	Ba^{2+}
	Cadmium	Cd^{2+}
	Calcium	Ca^{2+}
	Cobalt	Co^{2+}
	Copper(II)	Cu^{2+}
	Iron(II)	Fe^{2+}
	Lead(II)	Pb^{2+}
	Magnesium	Mg^{2+}
	Manganese(II)	Mn^{2+}
	Mercury(II)	Hg^{2+}
	Nickle(II)	Ni^{2+}
	Strontium	Sr^{2+}
	Tin(II)	Sn^{2+}
	Zinc	Zn^{2+}

3+ Ions	Aluminum	Al^{3+}
	Antimony(III)	Sb^{3+}
	Arsenic(III)	As^{3+}
	Bismuth(III)	Bi^{3+}
	Chromium(III)	Cr^{3+}
	Iron(III)	Fe^{3+}
	Titanium(III)	Ti^{3+}

4+	Manganese (IV)	Mn^{4+}
	Tin (IV)	Sn^{4+}
	Titanium (IV)	Ti^{4+}

5+	Antimony (V)	Sb^{5+}
	Arsenic (V)	As^{5+}

Anions (-)

1- Ions	Acetate	$\text{C}_2\text{H}_3\text{O}_2^-$
	Bromate	BrO_3^-
	Bromide	Br^-
	Chlorate	ClO_3^-
	Chloride	Cl^-
	Chlorite	ClO_2^-
	Cyanide	CN^-
	Fluoride	F^-
	Hydride	H^-
	Hydrogen Carbonate (Bicarbonate)	HCO_3^-
	Hydrogen Sulfate (Bisulfate)	HSO_4^-
	Hydrogen Sulfite (Bisulfite)	HSO_3^-
	Hydroxide	OH^-
	Hypochlorite	ClO^-
	Iodate	IO_3^-
	Iodide	I^-
	Nitrate	NO_3^-
	Nitrite	NO_2^-
	Perchlorate	ClO_4^-
Permanganate	MnO_4^-	
Thiocyanate	SCN^-	

2- Ions	Carbonate	CO_3^{2-}
	Chromate	CrO_4^{2-}
	Dichromate	$\text{Cr}_2\text{O}_7^{2-}$
	Hydrogen Phosphate	HPO_4^{2-}
	Oxide	O^{2-}
	Peroxide	O_2^{2-}
	Sulfate	SO_4^{2-}
	Sulfide	S^{2-}
	Sulfite	SO_3^{2-}
	Thiosulfate	$\text{S}_2\text{O}_3^{2-}$

3-	Borate	BO_3^{3-}
	Phosphate	PO_4^{3-}
	Phosphide	P^{3-}
	Phosphite	PO_3^{3-}

* Note: The one plus mercury ion is NOT Hg^+ , but Hg_2^{2+} . The empirical evidence supports this conclusion.