

# Formulas and Names of Some Common Ions

## 1) Fixed Charge Metal Ions

Group Number	Cation	Name of Cation
1A	$Li^+$	Lithium ion
1A	$Na^+$	Sodium ion
1A	$K^+$	Potassium ion
2A	$Mg^{2+}$	Magnesium ion
2A	$Ca^{2+}$	Calcium ion
2A	$Ba^{2+}$	Barium ion
3A	$Al^{3+}$	Aluminum ion
1B	$Ag^+$	Silver ion
2B	$Zn^{2+}$	Zinc ion

## 2) Nonmetal Ions

Group Number	Anion	Name of Anion
5A	$N^{3-}$	nitride ion
6A	$O^{2-}$	oxide ion
6A	$S^{2-}$	sulfide ion
7A	$F^-$	fluoride ion
7A	$Cl^-$	chloride ion
7A	$Br^-$	bromide ion
7A	$I^-$	iodide ion

### 3) Variable Charge Metal Ions

<b>Cation</b>	<b>Name of Cation</b>
$Cr^{2+}$	Chromium (II) ion
$Cr^{3+}$	Chromium (III) ion
$Mn^{2+}$	Manganese (II) ion
$Mn^{3+}$	Manganese (III) ion
$Fe^{2+}$	Iron (II) ion
$Fe^{3+}$	Iron (III) ion
$Co^{2+}$	Cobalt (II) ion
$Co^{3+}$	Cobalt (III) ion
$Ni^{2+}$	Nickel (II) ion
$Cu^+$	Copper (I) ion
$Cu^{2+}$	Copper (II) ion
$Pb^{2+}$	Lead (II) ion
$Pb^{4+}$	Lead (IV) ion

### 4) Polyatomic Ions

<b>Formula of Ion</b>	<b>Name of Ion</b>
$OH^-$	Hydroxide ion
$NH_4^+$	Ammonium ion
$NO_3^-$	Nitrate ion
$CO_3^{2-}$	Carbonate ion
$HCO_3^-$	Hydrogen carbonate (or bicarbonate) ion
$SO_4^{2-}$	Sulfate ion
$PO_4^{3-}$	Phosphate ion