

Nomenclature Worksheet #4

Ternary Compounds- Compounds containing three or more elements

The metal (or positive ion) is named first, then the polyatomic anion is named next.

Examples: NaNO_3 sodium nitrate
 NaNO_2 sodium nitrite

Representative (A group) metals do not need a Roman numeral.

Fe(OH)_3 Iron (III) hydroxide The charge of the hydroxide ion is -1
 CuSO_4 copper (II) sulfate The charge of the sulfate ion is -2

Transition metals need a Roman numeral to specify the oxidation state
 This may be deduced by knowing the charge of the anion.

Write the name of the following compounds:

- $\text{Ca(NO}_3)_2$ calcium nitrate
- NH_4OH ammonium hydroxide
- Fe_2O_3 iron(III) oxide
- $\text{Hg(NO}_3)_2$ mercury(II) nitrate
- Li_2SO_4 lithium sulfate
- K_2CO_3 potassium carbonate
- $\text{Mn(NO}_3)_2$ manganese(II) nitrate
- ZnSO_3 zinc sulfite
- KCN potassium cyanide
- $\text{Mn(MnO}_4)_2$ manganese(II) permanganate
- $\text{Ca(NO}_3)_2$ calcium nitrate
- FeSO_4 iron(II) sulfate
- KClO_3 potassium chlorate
- $\text{Al}_2(\text{SO}_4)_3$ aluminum sulfate
- $\text{Pb(C}_2\text{H}_3\text{O}_2)_2$ lead(II) acetate
- CaC_2O_4 calcium oxalate
- Fe(OH)_3 iron(III) hydroxide
- K_2SiO_4 potassium silicate
- NaHSO_4 sodium hydrogen sulfate
- Pb(ClO)_2 lead(II) hypochlorite
- $\text{Fe(ClO}_2)_3$ iron(III) chlorite
- CuMnO_4 copper(II) permanganate
- BaCO_3 barium carbonate
- $\text{Sr}_3(\text{PO}_3)_2$ strontium phosphite
- $\text{Ag}_2\text{Cr}_2\text{O}_7$ silver dichromate
- $\text{Sn(ClO}_4)_4$ tin(IV) perchlorate
- $\text{Mg(NO}_3)_2$ magnesium nitrate
- K_2CrO_4 potassium chromate