

Naming Compounds

Remember: covalent compounds result from the reaction of two nonmetals.

1) To name molecules (covalent compounds) we need to use prefixes. The prefixes are as follows:

a. Prefix	Number
b. Mono-	1
c. Di-	2
d. Tri-	3
e. Tetra-	4
f. Penta-	5
g. Hexa-	6
h. Hepta-	7
i. Octa-	8
j. Nona-	9
k. Deca-	10

2) Write the names of the elements using the prefixes corresponding to the number in the subscript (hint: if a subscript is not used, then the number is 1)

3) Never use the prefix mono to start a name.

4) At the end of the name, change the ending of the last element to "-ide"

5) Example:

- a. S_2Cl_8 - disulfur octachloride
- b. CO - carbon monoxide

You Try!

1) CO_2
Carbon dioxide

2) PBr_3
phosphorus tribromide

3) SF_6
sulfur hexafluoride

4) N_2O_5
dinitrogen pentoxide

5) P_4O_{10}
tetraphosphorus decoxide

6) NO_2
nitrogen dioxide

7) H_2O
dihydrogen monoxide

8) PBr_5
phosphorus pentabromide

9) CF_4
Carbon tetrafluoride

10) H_2S
dihydrogen monosulfide

Naming Rules for Ionic Compounds

Follow the procedures listed below to accurately name ionic compounds!

Remember: Ionic compounds are made from the reaction of a metal to a nonmetal

- 1) The name of the metal ion (cation) is simply the name of the metal element
- 2) The name of the nonmetal ion (anion) is the name of the nonmetal element but drop the ending and add "-ide".
 - a. Example: oxygen → oxide
 - b. Chlorine → chloride
 - c. Fluorine → fluoride
- 3) Combine the two names to name the ionic compound. Don't worry about subscripts.
 - a. Example: MgO → magnesium oxide

You Try!

1) NaCl

sodium chloride

2) MgO

magnesium oxide

3) LiCl

lithium chloride

4) BeS

beryllium sulfide

5) KBr

potassium bromide

6) NaI

sodium iodide

7) FeO

iron oxide

8) CuCl₂

copper chloride

9) MgCl₂

magnesium chloride

10) CaF₂

calcium fluoride

11) Na₂O

sodium oxide

12) Fe₂S

iron sulfide

13) Li₂O

lithium oxide

14) Ba₃N₂

barium nitride

15) BeS

beryllium sulfide

16) AgBr₂

silver bromide