

NAMING (CHAPTER 7)

GENERAL NAMING RULES

There are 4 rules for naming.

The first element determines which rule you use.



RULE 1

If the first element is a Group 1 or 2 metal (not H), Al^{+3} , Zn^{+2} , Ag^{+1} or NH_4^{+1}

Just write names of each element ... (unless)

- The second element is a single element, then change the ending of the element to -ide.
- Polyatomic ions copy the name.

Ex. Al_2O_3 Aluminum Oxide

Ex. Li_2SO_4 lithium sulfate

RULE 2

If the first element is any other metal

- Use Roman numerals to show the charge of the first element.
 - Uncriss-cross to find the charge. Check the negative charge to make sure the positive is correct.
 - If the second element is a single element, change the ending to -ide.
 - If it's a polyatomic ion, the name stays the same.
-
- **Ex. CuI_2 Copper (II) iodide**
 - **Ex. FeSO_4 iron (II) sulfate (the ion charges were reduced).**

RULE 3

If the first element is a nonmetal, use prefixes to show the number of each element. Don't try to figure out the charge.

**Don't use mono for the first element.

Mono=1

hexa=6

Di=2

septa/hepta = 7

Tri=3

octa = 8

Tetra=4

nona = 9

Penta=5

deca = 10

Ex. SO_2 sulfur dioxide

RULE 4

If the element starts with an H, it's an acid.

If there is an H and one other element.

Use hydro, the stem of the other element with
-ic acid.

Hydro_____ic acid

HBr = hydrobromic acid

H_2S = hydrosulfuric acid

RULE 5

If it starts with an H and has a polyatomic ion...(ATE...IC , ITE...OUS)

If the polyatomic ion ends with -ate, drop the -ate and add -ic acid

H_2SO_4 = sulfuric acid

If the polyatomic ion ends with -ite, drop the -ite and add -ous acid

H_2SO_3 = sulfurous acid