

Key.

Naming Molecular Compounds

A molecular compound is one that contains two (or more) non-metals.
(no metals are present)

1. Each compound name is made of two words, each with a suitable prefix:

Prefix used	# of atoms	Prefix used	# of atoms
mono	1	hexa	6
di	2	hepta	7
tri	3	octa	8
tetra	4	nona	9
penta	5	deca	10

2. The first name is simply the name of the first element, with a prefix to indicate how many of these atoms exist in each molecule:

Ex. P_2S_3 → the first name is diphosphorous

3. The second name is the name of the second element, with an "ide" ending on the elements name and a prefix to indicate how many of these atoms exist in each molecule.

Ex. P_2S_3 → the second name is trisulphide

The complete name is diphosphorous trisulphide

4. EXCEPTION: if there is only ONE of the **first** atom, do NOT use the prefix **MONO**.

Ex. CO → carbon monoxide, NOT monocarbon monoxide!

Name the following:

1. CO_3

Carbon trioxide

2. NO_2

Nitrogen dioxide

3. ClF_3

Chlorine trifluoride

4. S_4N_2

Tetrasulphur dinitride

5. P_2O_6

Diphosphorous hexoxide

6. S_3O_3

Trisulphur trioxide

Write the **formula** for the following:

1. Sulphur trioxide

SO_3

2. Phosphorous pentachloride

PCl_5

3. Dinitrogen pentasulphide

N_2S_5

4. Trisilicon tetranitride

Si_3N_4

5. Bromine hexafluoride

BrF_6

6. Carbon dioxide

CO_2