

CHEMISTRY

SIMPLE NAMES

Understanding how chemicals are named is a major undertaking. There are millions and millions of different compounds. Fortunately, there are rules to go by and some fairly simple ideas behind the names. In this lesson we will look at some fairly simple names that are based on common Greek prefixes. Here are the prefixes you need to know...

mono	1	hexa	6
di	2	hepta	7
tri	3	octa	8
tetra	4	ennea	9
penta	5	deca	10

Compounds that use these prefixes for naming are usually binary molecular compounds.

Binary molecules are usually compounds formed by the combination of two or more nonmetals.

Here are some examples...

Carbon Dioxide **CO₂**

This means one carbon and two oxygen atoms in the molecule.

Carbon Tetrachloride **CCl₄**

This means one carbon and four chlorine atoms in a molecule.

Diphosphorus pentoxide **P₂O₅**

Di means two and penta means five.

Sulfur Trioxide **SO₃**

You can see that frequently the mono is not used on the first element in the compound even if there is only one of them present. The "tri" means three oxygen atoms.

Another thing you may notice from this exercise is that quite often compounds with only two elements in them, "binary compounds" have an "-ide" ending.

STUDENT PRACTICE

1. See if you can write the formula for the following compounds...

Manganese Dioxide	
Carbon Disulfide	
Phosphorus Trichloride	
Dinitrogen Tetroxide	
Sulfur Dichloride	
Uranium Hexafluoride	
Gallium Triiodide	
Silicon Dioxide	
Diphosphorus Pentachloride	
Titanium Dioxide	