

# Naming Molecular Compounds

Some molecular compounds have common names like:

water	H <sub>2</sub> O
methane	CH <sub>4</sub>
ammonia	NH <sub>3</sub>
Ozone	O <sub>3</sub>
Hydrogen peroxide	H <sub>2</sub> O <sub>2</sub>

Some molecular compounds are composed of diatomic molecules, and have the following names...

I <sub>2</sub>	iodine (solid)
H <sub>2</sub>	hydrogen gas
N <sub>2</sub>	nitrogen gas
Br <sub>2</sub>	bromine (liquid)
O <sub>2</sub>	oxygen gas
Cl <sub>2</sub>	chlorine gas
F <sub>2</sub>	fluorine gas

(Note: an easy way to remember: I Have No Bright Or Clever Friends)

The rest of the molecular compounds are named using the **prefix system**:

<i>Number</i>	<i>Prefix</i>
1	mono
2	di
3	tri
4	tetra
5	penta

- The number of each atom in the molecule is indicated by a prefix.
- If the first element has only one atom, then the prefix mono is omitted.
- change the ending of the second element to "ide".

Formula:      **prefix + element name**      **prefix + element name + ide**

Examples:	P <sub>2</sub> S <sub>3</sub>	<b>diphosphorus trisulfide</b>
	N <sub>2</sub> O <sub>5</sub>	<b>dinitrogen pentoxide</b>
	CO <sub>2</sub>	carbon <b>dioxide</b>
	CO	carbon <b>monoxide</b>
	N <sub>2</sub> O <sub>4</sub>	<b>dinitrogen tetroxide</b>
	SCl <sub>2</sub>	sulfur <b>dichloride</b>

Name the following:

1. CBr<sub>4</sub> \_\_\_\_\_
3. OF<sub>2</sub> \_\_\_\_\_
5. Cl<sub>2</sub>O<sub>7</sub> \_\_\_\_\_
7. CS<sub>2</sub> \_\_\_\_\_
9. SiC \_\_\_\_\_

2. NI<sub>3</sub> \_\_\_\_\_
4. SiCl<sub>4</sub> \_\_\_\_\_
6. IF<sub>5</sub> \_\_\_\_\_
8. P<sub>2</sub>O<sub>5</sub> \_\_\_\_\_
10. PBr<sub>3</sub> \_\_\_\_\_