

Key - Mr. Sudbury

Naming Covalent Compounds

Remember that covalent compounds contain nonmetals bonded with other nonmetals. A covalent compound can also be called a molecule. When naming molecules, you use a Greek prefix to indicate the number of each type of atom present in the compound. You also add an –ide to the end of the second element in the compound. You DO NOT need the mono-prefix before the first element. Also, you can alter the spelling to avoid putting two vowels together.

An example of this rule: CO = carbon monoxide, not carbon monooxide.

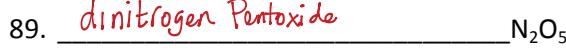
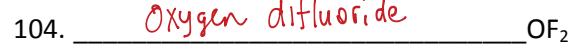
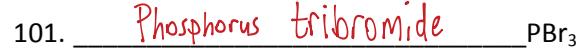
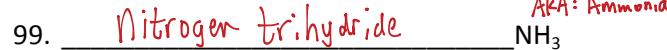
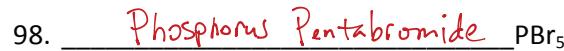
Greek Prefixes

Mono - 1	Hexa - 6
Di - 2	Hepta - 7
Tri - 3	Octa - 8
Tetra - 4	Nona - 9
Penta - 5	Deca - 10

Example 1: CO = carbon monoxide

Example 2: N₂O dinitrogen monoxide

Name the following covalent compounds using IUPAC nomenclature rules.



113. Selenium hexachloride SeCl_6
114. tetraphosphorus Pentasulfide P_4S_5
115. disilicon hexabromide Si_2Br_6
116. dihydrogen monoxide H_2O
117. diboron monosilicide B_2Si
118. nitrogen trifluoride NF_3
119. Iodine heptafluoride IF_7
120. Arsenic pentabromide AsBr_5
121. disulfur decafluoride S_2F_{10}
122. diboron tetrachloride B_2Cl_4
123. tetracarbon trisulfide C_4S_3
124. tetranitrogen decoxide N_4O_{10}
125. Chlorine dioxide ClO_2

126. Xenon difluoride XeF_2
127. Arsenic Pentachloride AsCl_5
128. Antimony tri chloride SbCl_3
129. Xenon trioxide XeO_3
130. Selenium tetrafluoride SeF_4
- Write the formula for the named compound.**
131. SbBr_3 Antimony tribromide
132. ClO_2 Chlorine dioxide
133. SiCl_4 Silicon tertrachloride
134. PF_5 Phosphorus pentafluoride
135. N_2Br_3 Dinitrogen tribromide