

Chemistry--Unit 2: Chemical Names and Formulas

Intro to Naming and Formula Writing Worksheet

Name _____

<u>Combining Substances</u>	<u>Formulas of Ions</u>	<u>Formula of Compound</u>	<u>Name of Compound</u>
<i>magnesium ion & chloride ion</i>			
<i>aluminum ion & bromide ion</i>			
<i>sodium ion & oxide ion</i>			
<i>iron (II) ion & sulfide ion</i>			
<i>aluminum ion & nitrate ion</i>			
<i>potassium ion & sulfate ion</i>			
<i>ammonium ion & sulfide ion</i>			
<i>iron (III) ion & phosphate ion</i>			
<i>iron (II) ion & sulfate ion</i>			

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1. Some elements have more than one oxidation number. To show the oxidation number of such elements in a compound, a Roman numeral is given in the name of the compound. Give the names of the following compounds.
 - a) UF_5
 - b) VF_4
 - c) MoCl_6
2. Twenty different possible compounds can be made that 1) contain manganese ion as the cation and 2) contain a polyatomic anion made up of bromine and oxygen. List the four formulas and names of the compounds described above that have Mn^{+4} as their cation.

Looking at your answers, and examining the polyatomic ion chart, what's the difference in the ion when per____ate, -ate, -ite, and hypo____ite are used? Be specific in your answer.

3. Which of the following are molecular formulas? Circle them.



Classify the compounds above by writing their formulas under the proper heading below. If more than one category can be used to classify the compound, write it under each that applies.

binary compound

binary ionic compound

binary molecular compound

ternary compound

ternary ionic compound

ternary molecular compound