Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Topic 2/3 Questions and Review

**Naming Practice**

Name:

Na2SO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ Ca(C2H3O2)2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

P2O5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ H2CO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NH4Cl\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ FePO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CCl4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CuHCO3  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CoCrO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ClO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Write the formulas:**

Acetic Acid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Potassium Carbonate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Barium Oxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dinitrogen Pentoxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

HydroIodic Acid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lithium Bromide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Manganese (IV) oxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lead (II) Phosphide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Zinc fluoride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sulfur Dioxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Reactions: (Write and balance the equation)**

 Hydrogen gas plus chlorine gas yields

Aluminum plus hydrochloric acid yield

Potassium reacts sodium chloride to produce

The complete combustion of liquid butane (C4H10)

Sodium acetate and sulfuric acid produce

**Mole and % Composition:**

115.9 g of aluminum sulfate =

a) ? moles,

b) ? formula units,

c) % Al, S, O,

d) ? g Al in 115.9g sample

9.08 x 1023 molecules of N2(g) =

a) ? moles,

b) ? liters at STP,

c) # of N atoms?

**Stoichiometry**

Use the following equation to answer stoichiometry questions 1-3: 2K(s) + 2H2O(l) → 2KOH(aq) + H2 (g)

1. How many grams of potassium hydroxide will be produced if 13.2g of potassium is reacted with excess water?
2. How many molecules of water reacted if 2.3L of hydrogen gas was created at STP?
3. How many grams of potassium is needed to fully react with 53.5mL of water?

In a combustion reaction, 30.0 L of ethane gas at STP, C2H6, is reacted with excess oxygen gas:

1. What is the balanced equation?
2. What is the theoretical yield (# grams) of all products? (How much of each substance will you make?)

In a single replacement reaction, 22.93 g of iron are reacted with an excess of lead (II) phosphate to produce and iron (III) salt.

1. What is the balanced equation?
2. What is the theoretical yield (# grams) of all products?