Acid Concentration

Name _____ Date_____

Objective: Determine the effects of concentration on various metals

Method:

Materials

Distilled water	Sulphuric Acid	Hydrochloric Acid
Ethanoic Acid	pH meter	Magnesium
Copper	Iron	Zinc
Graduated Cylinder	16 boiling tubes	Test tube rack
Spatula		

Procedures

1. Place 4 boiling tubes into the test tube rack.
2. Label each boiling tube with the appropriate liquid
3. Fill boiling tubes with 5 mL of each of the acids
4. Measure and record the pH of each acid
5. Carefully place 1 gram of magnesium into each boiling tube.
6. Observe for 5 minutes. Record your results.
7. Repeat the procedure using the copper, iron and zinc.

NOTE: Oxidation states: Copper (2^+), Iron (2^+), Zinc (2^+)

Conclusions:

1. What are the hazardous associated with this experiment

2. Use a chemical equation to state each of the reactions

3. List the possible errors associated with this experiment

4. What were the dependent and independent variables? What was your control?

5. Describe how the concentration of each liquid affected the metal

6. Is there a correlation between the pH of the acid and concentration of an acid? Explain your answer.