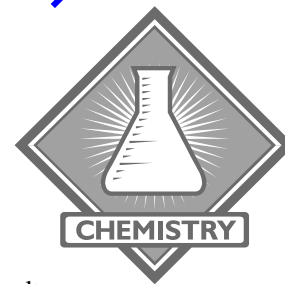


Names: _____

20 Pts.

Honors Chemistry Mini-Lab: The 6 Bottle Experiment



I. Purpose:

To observe a chemical reaction and predict the identity of the products formed in a reaction. Distinguish between soluble and an insoluble precipitate.

II. Procedure:

1. Preface: On my lab bench are five lettered bottles that each contain one dissolved salt. These six salts are; Iron(III) nitrate, sodium hydroxide, sodium phosphate, ammonium carbonate, copper(II) sulfate and cobalt(II) chloride.
2. In a clean 50-ml beaker pour about 15-20 ml of each solution into the beaker. Label each beaker.
3. Obtain 5 dropper pipets. One pipet for each solution.
4. You can get more solution if you run out. These tests are entirely qualitative; (i.e., a little drop does the same as a large amount. Conserve the amount you use)
5. With a test tube rack and 10 clean test tubes design an experiment that determines the identity of the salt in each bottle.

III. Analysis:

Data: Draw a table that summarizes your *observations*.

	Bottle A	Bottle B	Bottle C	Bottle D	Bottle E	Bottle F
Bottle A						
Bottle B						
Bottle C						
Bottle D						
Bottle E						
Bottle F						

IV. Conclusion Questions:

1. What is the identity of bottles 1 through 4?

Bottle A: _____

Bottle D: _____

Bottle B: _____

Bottle E: _____

Bottle C: _____

Bottle F: _____

2. For each combination that produced a precipitate write a balanced molecular and net ionic equation that *includes phase notation*.