Chemistry 20

Lesson 22 – Precipitate Activity

**Instructions:**

* You are supplied with solutions of sodium carbonate and calcium chloride. Pour approximately 20 mL of the sodium carbonate into a clean dry reaction beaker. Using a pipet, transfer exactly 10.0 mL of the 0.50 mol/L solution of calcium chloride into the sodium carbonate solution. **Be sure to rinse the pipet with distilled water before transferring any chemical.**
* Collect the precipitate by filtration (see p. 802-803).
* Determine the experimental yield, the theoretical yield, and the % error.

**To complete the activity, do the following:**

1. Title - appropriate.

2. Purpose - State what is achieved by doing the lab.

3. Background Information - Define the following terms:

solution

reactant

product

precipitate

filtrate

4. Experimental design -- state the a) manipulated variable

 b) responding variable

5. Write a procedure.

6. Observations (list or chart of data).

7. Conclusion.

A. Analysis.

a. Provide a stoichiometric calculation of the theoretical yield.

b. Determine the experimental yield.

B. Evaluation

a. Calculate the percent error.

b. Give at least 2 possible sources of error.

c. For the filtrate:

- What ion(s) remain in the filtrate?

**One lab write up per group of two.**