

Science 9 – Observing Chemical Change

Purpose: To demonstrate proper safety procedures in the chemistry lab.
To observe and record information about a chemical change.

Materials: 100 mL beaker
25 mL graduated cylinder
paper towel
glass stir rod

10 cm square of aluminum foil
Copper (II) chloride (CuCl_2) solution

Procedure:

1. Get all equipment, and be sure that it is clean.
2. Obtain approximately 50 mL of CuCl_2 solution and place it into the 100 mL beaker.
3. Crumple the foil into a loose ball, about the size of a golf ball.
4. Immerse the foil in the CuCl_2 solution and begin recording point-form observations.
5. Once you are sure the reaction is complete, decant the solution down the drain with plenty of water.
6. Remove the solid product from the beaker and dry it by pressing the water out with paper towel. Record your observations.
7. Clean up!



Data and Observations:

Table 1: Data collected during the single replacement of Cu and Al

Observations of CuCl₂ solution	
Observations after foil has been immersed in the CuCl₂ solution	
Observations of solid product after the reaction	

Questions and Analysis:

1. What is a chemical change?
2. What did you see happen that led you to believe that a chemical change may have taken place?
3. How is a chemical change different from a physical change?
4. Was today's reaction endothermic or exothermic? How can you tell?
5. What safety precautions did you need to take during today's lab?