

Chemistry 20

Lesson 24 – Properties of Acids and Bases

Materials:

acid (10 mL)	conductivity tester	spot plate
base (10 mL)	litmus paper	
neutral ionic substance (10 mL)	zinc metal	
neutral molecular substance (10 mL)	magnesium metal	

To complete the activity, do the following:

1. Write a **purpose** for the activity.
2. Prepare an **observation table** to include the following properties of acids, bases, neutral ionic, and neutral molecular substances.
 - a. feel
 - b. electrical conductivity
 - c. effect on litmus paper
 - d. effect on the active metal **zinc**
 - e. effect on the active metal **magnesium**
3. An **empirical** or **operational** definition is a statement that defines an object or process in terms of its **observable** properties. For example: *Freezing is the process where a liquid turns into a solid.*

Write **operational** definitions for an acid, a base, a neutral ionic substance, and a neutral molecular substance.

4. After your observations are complete, determine what kind of substance each of the following is:
 - soda pop
 - Sani-flush
 - baking soda
 - salt
 - bleach
 - household ammonia