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