**Identifying Substances (5) Using Properties Lab – oBJECTIVE 210-2 & 307-13**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: September 2018 – Review Lab (page 20 of textbook)**

**Question:** How can physical and chemical properties be used to identify substances?

**Hypothesis:** An unknown substance can be identified by testing its properties and comparing them with those of know substances.

**NOTE: Place a check mark next to the materials once you have attain each one in the lab except for the hydrochloric acid)**

**Materials:**

**\_\_\_\_\_**Pencil

\_\_\_\_\_Safety goggles

\_\_\_\_\_Apron

\_\_\_\_\_Five samples of five unknown solids

\_\_\_\_\_Toothpicks

\_\_\_\_\_Hand lens

\_\_\_\_\_Spot plate or microtray

\_\_\_\_\_Medicine dropper

\_\_\_\_\_Small beaker with distilled water

**\*\*Dilute hydrochloric acid – Will be demonstrated with teacher’s instructions.**

**Procedures: Start at step 3 in your textbook**

**3.**

**4.**

**5.**

 **(a)**

 **5. (b)**

**6.**

**7.**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Property (solids): salt, baking soda, chalk, sodium nitrate, sodium thiosulphate**

**Table 1 – Data About Solids (NOTE: Options below for chart) Lab Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **#1** | **#2** | **#3** | **#4** | **#5** |
| **State (at room temperature)** |  |  |  |  |  |
| **Colour** |  |  |  |  |  |
| **Clarity** |  |  |  |  |  |
| **Crystal shape** |  |  |  |  |  |
| **Behavior in water (distilled)** |  |  |  |  |  |
| **Behavior in acid (3-5% hydrochloric acid)** |  |  |  |  |  |

**OPTIONS BELOW:**

**State – solid, liquid, or gas Crystal shape – small cubes, powder, granular, hexagons**

**Colour – white Behavior in water – soluble or insoluble**

**Clarity – clear or opaque Behavior in acid – dissolves, frizzes & dissolves quickly, turns cloudy yellow**

**Analysis and Communication – Complete on your own paper the questions from the text (page 21) & add to lab report.**

**SUBMIT THIS LAB DOCUMENT/RECORD OF RESULTS TO TEACHER UPON COMPLETION OF LAB REPORT**