**Glaze Lab**

**Objective**: To determine which of the following substance would be the best fixative for the Ceramic Artisans Company.

**Materials**: sucrose, sodium chloride, sodium carbonate, salicylic acid

**Procedure Part A**:

1. Heat a very small amount of each solid in a test tube. If the solid changes color or starts to melt, immediately remove it from the heat. Do not heat any compound more than 1 minute.
2. Observe and record results on the table below.

**Procedure Part B**:

1. Place a very small amount of each solid in a test tube. Add 10 ml of water to the test tube, stopper, and shake for 30 seconds. Observe and record which solid dissolved. If the compound dissolves in water, proceed to Part C.
2. Pour all solutions into the garbage can.
3. Repeat number one above but all 10 ml of oil instead.

**Procedure Part C**:

1. Test only those compounds that dissolve in water with the conductivity apparatus. Pour your solutions from Part B into a 100 ml beaker and test.

**Data:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Melts | Dissolves in water | Dissolves in oil | Conducts |
| Salicylic acid |  |  |  |  |
| Sodium carbonate |  |  |  |  |
| Sodium chloride |  |  |  |  |
| Sucrose |  |  |  |  |

**Analysis:**

1. Identify the best fixative:

2. Identity each compound as ionic vs covalent:

a. Salicylic acid

b. Sodium carbonate

c. Sodium chloride

d. Sucrose

3. Which covalent compound is polar and which is nonpolar? How do you know?