

Names and Roles: _____

Date: _____

Solubility Lab #2

Students are given several materials and will test to see if the method (stirring or no stirring) used affects the solubility and if temperature (Hot or Cold) affects solubility of a certain solute in a solvent.

Materials: Water (Hot/Cold), graduated cylinders, stop watch/clock, alka selzer tablets, stirring rod, cups.

Hypothesis: We are testing the solubility of alka selzer in 4 different scenarios: Solubility of alka selzer in hot water, cold water, hot water and stirring, cold water and stirring. Which scenario do you think the alka selzer will dissolve in faster to make a homogenous solution? Or do you think it wont dissolve at all (nonsolution)?

Procedure:

Method 1: Leader1, measure _____ of COLD water into your cup (using graduated cylinders). Bring the cup back to the table along with 1 alka selzer tablet. **Leader2**, drop the tablet into the COLD water, **timekeeper** begin the when the tablet hits the water. STOP the clock when the tablet is done fizzing. **Recorder**, write down the start and final times.

Method 2: Leader1, measure _____ of COLD water into your cup (using graduated cylinders). Bring the cup back to the table along with 1 alka selzer tablet. **Leader2**, drop the tablet into the COLD water and STIR. **Timekeeper** begin the when the tablet hits the water. STOP the clock when the tablet is done fizzing. **Recorder**, write down the start and final time.

Method 3: Leader1, measure _____ of HOT water into your cup (using graduated cylinders). Bring the cup back to the table along with 1 alka selzer tablet. **Leader2**, drop the tablet into the COLD water, **timekeeper** begin the when the tablet hits the water. STOP the clock when the tablet is done fizzing. **Recorder**, write down the start and final times.

Method 4: Leader1, measure _____ of HOT water into your cup (using graduated cylinders). Bring the cup back to the table along with 1 alka selzer tablet. **Leader2**, drop

the tablet into the COLD water and STIR. **Timekeeper** begin the when the tablet hits the water. STOP the clock when the tablet is done fizzing. **Recorder**, write down the start and final time.

Data:

| | Solute | Solvent | Initial Time | Final Time |
|-----------------|---------------|----------------|---------------------|-------------------|
| METHOD 1 | | | | |
| METHOD 2 | | | | |
| METHOD 3 | | | | |
| METHOD 4 | | | | |

Conclusion:

Write 1 paragraph (3-5 sentences) conclusion. Was your hypothesis rejected or supported? WHY OR WHY NOT? Use your data (the chart) to back up your conclusion. What have we learned in class that supports the results of your lab?

Leader 1: Comments about roles and participation of group members:
