SUPER BALL LAB

OBJECTIVE
- Demonstrate safe practices during field and laboratory investigations
- Collect data by observing and measuring
- Analyze and interpret information to construct reasonable explanations from direct and indirect evidence.
- Communicate valid conclusions
- Collect, analyze, and record information using tools including beakers, graduated cylinders, and safety goggles
- Demonstrate that new substances can be made when two or more substances are chemically combined and compare the properties of the new substances to the original substances
- Classify substances by their physical and chemical properties

PROCEDURE:
1. Collect your materials and put on your safety gear (goggles, apron, and gloves)
2. Measure 20.0 mL of sodium silicate solution in the larger graduated cylinder. Record it’s physical properties in the chart.
3. Measure 5.0 mL of ethyl alcohol in the smaller graduated cylinder. Record it’s physical properties in the chart.
4. Pour the sodium and silicate and the ethyl alcohol into the Dixie cup.
5. Using a circular motion, stir with the stick until the substance begins to solidify.
6. Place the new product in the palm of your hand and gently press with the palm of the other hand until a spherical ball that no longer crumbles is formed. BE PATIENT. Moisten the ball occasionally by wetting it with the water from the beaker.
7. Record the physical properties of the new substance.
8. Try to bounce the ball!
9. If it crumbles, it can be re-formed by additional palm pressure and/or addition of water.
10. Clean up your area
DATA:

<table>
<thead>
<tr>
<th>Physical Properties</th>
<th>Sodium Silicate</th>
<th>Ethyl Alcohol</th>
<th>Product</th>
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<tbody>
<tr>
<td>State of Matter</td>
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<td>(choose one - solid, liquid, gas)</td>
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CONCLUSIONS:

1. Identify one chemical property of sodium silicate and ethyl alcohol.

2. Was this a physical or chemical change? *Explain why and support your answer with observational data from the experiment.*