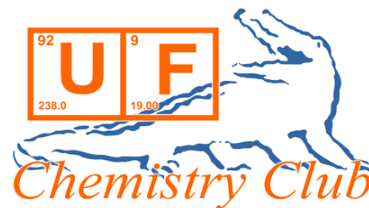


University of Florida Chemistry Outreach Program Oobleck

Estimated Time: 25 mins. + 15 mins. clean-up

Topics: Scientific Observation and States of Matter



Introduction: The term “Oobleck” is derived from the book *Bartholomew and the Oobleck*, by Dr. Seuss. What is “Oobleck”? A solid, a liquid, or does it have gas qualities? If “Oobleck” is made up of three liquids, what do you expect the state of “Oobleck” to be?

Objective: As students participate in this activity, they will develop important skills in scientific observation.

Materials:

- Borax solution [15 ml Borax dissolved in 250ml of warm water] (clear solution)
- Elmer’s glue mixture [30 ml of glue mixed with 30ml of water] (white solution)
- Zipper-lock bag
- Styrofoam bowls
- Green food coloring (green solution)
- 100ml Graduated Cylinder

Safety:

- Keep away from small children and pets
- Do not eat or taste

Procedure:

1. Mix the Borax and the water in one bowl, making sure that the Borax dissolves completely.
2. Mix the glue and the water in the second bowl.
3. Put 10ml of Borax solution in the plastic bag.
4. Add one or two drops of food coloring
5. Add 30ml of glue mixture
6. Close the bag and mix thoroughly for 2 minutes.
7. When not being used to gross out friends, the Oobleck should be kept in the plastic bag!

Discussion:

1. What are the states of matter of the following?
 - a. Borax
 - b. Glue
 - c. Food coloring
 - d. Water
2. What state of matter is “Oobleck”?
3. Is “Oobleck” an element, a compound, or a mixture? Explain.
 - 1a. *solid, b. liquid, c. liquid, d. liquid.*
 2. *“Oobleck” colloidal suspension. In general, a colloidal suspension is a substance with components of one or two phases, a type of mixture intermediate between a homogeneous mixture (also called a solution) and a heterogeneous mixture with properties also intermediate between the two.*
 3. *“Oobleck” is a mixture.*
 - Element: any substance that cannot be broken up into simpler substances by chemical means*
 - Compound: a substance formed when atoms of two or more elements join together*
 - Mixture: a material consisting of two or more substances that are not chemically bound to each other and can be separated.*

Source: This lab is a modified version of a similar activity from Thomas Jefferson Labs