

Soybean Plastic Lab Sheet

Materials Needed:

- Measuring spoon
- 1 tablespoon cornstarch
- 2 drops (about 1/8 teaspoon) of soybean oil
- 1 tablespoon water
- 2 drops food coloring
- Resealable sandwich-sized bag
- Microwave
- Kitchen scale

Procedures: Part 1

1. Place 1 tablespoon of cornstarch into the plastic bag.
2. Add 2 drops of soybean oil.
3. Add 1 tablespoon of water.
4. Close the bag and knead it with fingers, mixing the contents.
5. Add two drops of food coloring.
6. Seal the bag and mix remaining contents.
7. Open the bag slightly so it can vent.
8. Weigh the contents of the bag on a kitchen scale.

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1. How many grams does your bag of contents weigh BEFORE microwaving?
 2. Describe the mixture in your plastic bag:
 3. How does it feel when you squish the bag?
 4. Is your mixture a solid or a liquid?

Procedures: Part 2

1. Heat the bag in the microwave for 20-25 seconds. Do not seal the bag all the way! Leave part of the bag unsealed so the contents can vent, and steam can escape.
2. Remove the bag from the microwave and let the plastic cool. Be careful, the bag and contents will be hot!

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1. What does your new substance look like?
 2. How many grams does your bioplastic weigh? Is it the same weight as before? Why or why not?
 3. What products could you make with bioplastic?