Name: _____ Date: _____

Lab – The Law of Conservation of Mass

Objective: To verify the law of conservation of mass by comparing the mass of the reactants and products of a reaction.

Materials:

lead (II) nitrate	potassium iodide

Equipment:

beakers (capacity: 150 mL to 250 mL)	Erlenmeyer flask (capacity does not matter)
filter paper	funnel
oven	balance
weighing dishes	spatula

Procedure:

1. Obtain a filter paper and record its mass.
2. In a weighing dish, mass 0.33 g of potassium iodide.
3. Place this solid into a beaker.
4. In a second weighing dish, mass 0.33 g of lead (II) nitrate.
5 Place this solid into a second beaker.
6. Fill a graduate cylinder with 100 mL of water. Pour half into one beaker and half into a second beaker.
7. Stir these beakers until all of the solid is dissolved.
8. Add the contents of one beaker to another and note the changes that take place.
9. Place a funnel inside an Erlenmeyer flask. Fold a filter paper in quarters and place inside the funnel.
10. Swirl the beaker contents and pour into the filter paper until the precipitate is filtered out.
11. If necessary, rinse the beaker and pour into the flask until the precipitate is gone.
12. Label a watch glass, place the filter paper on a watch glass and place in the oven.
13. Keep an eye on the filter paper, and when it is dry, remove from the oven.
14. Record the mass of the filter paper and precipitate.

Data:

Create a data table for all values that need to be recorded.

Analysis/Calculations:

Calculate the percent yield, keeping in mind the theoretical yield is 0.46 g.

Conclusion:

Discuss reasons for your percent yield not being 100%. Do these reasons prove that the law of conservation of mass is false?