
Question:

Which has the largest mass: a large stopper, a large paper clip, a massing cup, or 5.00 grams of potassium nitrate (KNO_3)?

Hypothesis:

Materials:

1 centigram balance	1 30 mL beaker
1 medium scoop	5.00 g potassium nitrate
1 test tube brush	1 permanent marker
1 massing cup	1 microscop
1 #8 rubber stopper	1 large paper clip

Hazards:

The student safety contract applies. _____

Procedure:

1. Mass the rubber stopper and get a signature
2. Mass the large paper clip and get a signature.
3. Physically clean a 30 mL beaker with tap water and a test tube brush
4. Chemically clean the beaker by rinsing it with a **small** amount of distilled water
5. Dry the beaker completely using the air jets and/or paper towel
6. Label the beaker KNO_3 and initial it with the permanent marker (**NEVER** on the white spot or white lines of the beaker!)
7. Physically and chemically clean and dry the medium scoop and microscop
8. Take the beaker and medium scoop to the teacher to obtain the potassium nitrate
9. Label a massing cup KNO_3 with the permanent marker
10. Put a piece of paper towel down in front of the balance and place the beaker, scoops, and massing cup on it
11. Record the number of the balance being used
12. Mass the empty massing cup and record the measurement

13. Have the teacher initial the measurement **while it is still on the balance**
14. **Increase** the riders by 5 grams (move the 1 g rider over 5 notches)
15. Slowly pour the potassium nitrate into the massing cup until the pointer is almost pointing to the zero
16. Using the microscoop, add more potassium nitrate until the pointer is exactly pointing to the zero
17. Total the riders and record the mass of the cup + chemical
18. Subtract the mass of the massing cup from the mass of the cup + the potassium nitrate
19. Have the teacher initial the measurement **while it is still on the balance**
20. Remove the massing cup appropriately from the massing pan
21. Dispose of the potassium nitrate in the appropriate waste container
22. Clean up and get a clean up signature.

Data:

Teacher sigs

Balance # _____

Mass of: rubber stopper = _____ g _____

Balance # _____

Mass of: paper clip = _____ g _____

Balance # _____

Mass of:

 potassium nitrate + cup = _____ g

 massing cup = _____ g _____

 potassium nitrate = _____ g _____