



Piqua Regional

Can't Judge a Powder Test

Final Rank:

Final Score:

School Name: _____ Student Name: _____

School Number: _____ Student Name: _____

Answer the following questions by using your observations. Enter the number(s) of the observation(s) that fully supports your answer on the line provided. If an observation was not made for a specific question, you can still get partial credit with a write-in answer.

Answer
Credit
(Do not Use)

GENERAL OBSERVATIONS

1 Control Observation - What was the approximate mass of your sample in grams?

0 1 2 3 4 5

2 Describe the physical characteristics of the sample

0 1 2 3 4 5

3 What was the reflective tendencies (Luster) of the sample with regard to light (radiodisity)?

0 1 2 3 4 5

4 If crystalline, were the crystals of uniform shape or irregular?

0 1 2 3 4 5

5 Did the sample appear to be hygroscopic?

0 1 2 3 4 5

DISTILLED WATER OBSERVATIONS

6 Control Observation - Was the distilled water able to conduct a current?

0 1 2 3 4 5

7 Did the mixture of the substance / distilled water solution conduct a current?

0 1 2 3 4 5

8 Was the sample hydrophilic or hydrophobic?

0 1 2 3 4 5

9 Was the sample soluble in distilled water?

0 1 2 3 4 5

10 Was there a reaction that occurred when sample was mixed with distilled water?

0 1 2 3 4 5

11 How did the density of the sample compare to that of H_2O ?

0 1 2 3 4 5

HCl OBSERVATIONS

12 Was the sample soluble in HCl?

0 1 2 3 4 5

13 Was the HCl / sample solution able to conduct a current?

0 1 2 3 4 5

14 How did the density of the sample compare to that of HCl?

0 1 2 3 4 5

NaOH OBSERVATIONS

15 Was the sample soluble in NaOH?

0 1 2 3 4 5

16 How did the density of the sample compare to that of NaOH?

0 1 2 3 4 5

BENEDICTS SOLUTION OBSERVATIONS

17 Was the Benedict's Solution miscible with the aqueous sample?

0 1 2 3 4 5

18 What color was the aqueous solution with Benedict's before heating

0 1 2 3 4 5

19 When the aqueous solution with Benedict's was heated in a hot water bath, was there a notable change?

0 1 2 3 4 5

20 What was the final resultant color of the aqueous solution with Benedict's after heating in hot water bath?

0 1 2 3 4 5

CONCLUSIONS:

**Write in your answer, then support that answer with Observation numbers that apply
Inaccurate or inapplicable Observations will be marked as wrong. Be sure they support your answers!**

21 Would you classify the substance as a covalent compound or an ionic compound

Ans: _____

Supporting Observations: _____

0 1 2 3 4 5

22 Why would you classify the substance as organic or inorganic?

Ans: _____

Supporting Observations: _____

0 1 2 3 4 5

23 Why would you classify the sample as a monosaccharide or a disaccharide?

Ans: _____

Supporting Observations: _____

0 1 2 3 4 5

24 Why would you classify this sample as Acidic, Basic or Neutral?

Ans: _____

Supporting Observations: _____

0 1 2 3 4 5

25 Explain why there were or were not free ions and or cations present in the HCl / sample solution?

Ans: _____

Supporting Observations: _____

0 1 2 3 4 5

26 Explain why you believe the specific gravity of the substance was greater than or less than 1?

Ans: _____

Supporting Observations: _____

0 1 2 3 4 5

27 Explain what observations may indicate that there are free Copper cations present in Benedicts Solution?

Ans: _____

Supporting Observations: _____

0 1 2 3 4 5

