

# Good Morning

- Please take a look at the answers to the first three homework questions on either side of the room.
- Get a handout from the front desk.
- Get goggles please.

# Today

- You will be taking a the known mass of a certain chemical compound and mixing it with another chemical.
- You are going to predict the mass of the product.

# Safety First

- Goggles must be worn at all times.
- You may not take your goggles off until your lab station is cleaned up and all equipment is put away.

# Why???

- We will be using 6 molar hydrochloric acid.
- It can eat through clothing and cause blindness if you get it in your eyes.
- We will also be using Bunsen burners.
- Make sure to let things cool.

# Process

- Mass a **dry** 150ml beaker and a watch glass.
- Watch class curved side down please.



# NaHCO<sub>3</sub>

- Measure 2.0-2.5 grams of sodium bicarbonate into your **beaker**.
- Use the tare function to zero the beaker and then add the sodium bicarbonate.

# At your Stations

- Set up large ring stand, mesh and Bunsen Burner.
- Get a striker.
- DO NOT light the bunsen burners yet.

# Getting Your Acid

- Add two full droppers of acid.
- Add the acid **SLOWLY**. Do not spill.
- See the demonstration.



# Stirring

- Slowly swirl the beaker in your hands.
- Hold it away from your head.
- There may be some Hydrogen Chloride gas coming from the reaction. Do not breath it in.

# Is it Finished?

- You should see no more powder in the beaker.
- If this is not the case, add a few more drops of acid to the solution.
- Do this a few (2 or 3) drops at a time.

# Heating

- Place the watch glass on the beaker curved side down.
- Steady the beaker on the mesh.
- Once you start heating, you will not be able to touch it.

# During Heating

- Work on the questions on the back of the lab.
- Questions 1-9 can be answered while you are waiting for the water to evaporate.

# When's it finished?

- You will see most of the water evaporate.
- The remnants will crackle like rice crispies. This is water evaporating from inside the compound.
- Once this stops, cut the flame.

# Let it Cool

- Allow at least 5 minutes for the beaker to cool.
- Even if you can handle it, the heat on the beaker will create a small updraft that will affect your final mass.

# Final Mass

- Record the mass of the beaker, watch glass and the compound.
- Subtract the mass of the beaker and watch glass.
- This is your actual yield.

# Clean Up

- Once you have your final mass, clean up your station.
- After this, finish the questions on the back.
- Put the labs in your notebook.



# Homework

- Correct any mistakes from homework problems 1-3.
- Apply corrections to solve problems 4 & 5.
- Come in with questions about Stoichiometry for review Monday.



**Have a Great Weekend!**