

## Magnesium Lab

**Purpose:** To determine the limiting reagent in the chemical process.

Hypothesis: If, then.....Explain which of the chemicals will limit the reaction.

### Materials:

Test Tubes (8)  
Test Tube Holder  
Test Clamp  
8 Balloons  
Graduated Cylinder  
Magnesium (64 cm)  
Hydrochloric Acid

### Procedure:

1. Determine Group One and Group Two with four test tubes each
2. Measure out 40 mL of Hydrochloric Acid in Graduated Cylinder
3. Cut Magnesium to correct lengths
4. Blow up the 8 balloons to loosen latex
5. Roll up magnesium strips and drop in balloons
6. Place balloons on test tubes
7. Lift balloon and drop metal into acid solution
8. Record reaction results on chart
9. Measure length and width of each balloon
10. Determine what chemical is the limiting reagent
11. Pour solution in sink, collect metal, do not let it go down the drain
12. Rinse out test tubes return to stands

### Data:

Create table to list sizes of balloons and reactions of solutions

### Conclusion:

1. By your data collected explain which is the limiting reagent
2. How could the results of this experiment be swayed?
3. Why does the Hydrochloric Acid react with the magnesium (Acid/Base principle)