## **Prelab Assignment: Experimental Determination of the Gas Constant**

- What is the name of the gas that will be collected and studied in this lab?
  Write the balanced equation for the reaction used to generate this gas.
- 2. You will perform several measurements on your collected gas sample in order to experimentally determine the value of the Gas Constant (R).
- a. What is the theoretical value of R, and what are its units?
- b. The Gas Constant is found in the Ideal Gas Law. Write the equation for this law.
- 3. The magnesium ribbon used in this reaction must be carefully handled.
- a. What must you avoid doing with the magnesium ribbon at the lab bench (hint, see Procedure #2)?

b.	What mass of the magnesium ribbon should be used?
4.	What is the name of the specialized "tube" that your gas is collected in?
	This tube not only collects the gas, it also allows you to directly measure the gas (circle one):
	pressure / temperature / volume

- 5. Consider some of the other equipment you will use in this lab.
- a. What device will you use to measure atmospheric pressure?
- b. What TWO temperatures will you measure with your thermometer?
- 6. Part of the procedure for this experiment involves ensuring that the total pressure of gases collected inside the specialized tube is equal to atmospheric pressure. How is this achieved (hint, see Procedure #8)?