**Concentration Worksheet 1**

**Concentration:**

* is a measure of the amount of **solute** in a given amount of **solution**.

 **concentration = amount of solute**

 **amount of solution**

* There are many different ways of expressing concentration.
* Some are more appropriate than others depending on the purpose--chemists tend to use mol/L.

**1)** **Grams per liter**

* This measurement is often used when discussing the solubility of a solid in solution.

 **concentration = mass of solute in grams**

 **volume of solution in L**

**a)** A solution is made that contains 125 g of potassium sulfate in 325.6 L of solution. What is the concentration of your solution? **(0.384 g/L)**

 **b)** If a 24.95 g/L aluminum hydroxide solution contains 162.95 g of solute, what volume of soln do you have? **(6750 mL)**

 **c)** How much iodine would be used to make 450.0 mL of a 1.69 x 10-4 g/L soln contain? **(0.0762 mg I2)**

 **d)** If you dissolve 1.5 mg of MgCl2 to make 300. mL of solution, what is the concentration in g per L? **(0.0050 g/L)**