**TERMINOLOGY and DEFINITIONS**

**Accuracy** - Nearness of the measured value to the true value.

**Aliquot** - A representative fraction of a sample.

**Analyte** - The chemical species that is being determined in the analysis.

**Blank** - A sample, that contains everything but the analyte, which is used to set the zero point in many analytical procedures. A blank is commonly used in spectrophotometric and titrimetric methods of analysis.

Density  \[ \frac{\text{mass in grams}}{\text{volume in mL}} \]

**Detection Limit** - Minimum detectable quantity of an analyte.

**Molarity** - Number of moles of a substance per liter of solution.

Parts per Million (ppm)  \[ \frac{\text{grams of substance}}{\text{million total grams of solution or mixture}} \times 100 \]

For an aqueous solution, assuming the density of the solution is 1g/mL, ppm  \[ = \frac{\text{milligrams}}{\text{Liter}} \]

Parts per Billion (ppb)-  \[ \frac{\text{grams of substance}}{\text{billion total grams of solution or mixture}} \times 100 \]

For an aqueous solution, assuming the density of the solution is 1g/mL, ppb  \[ = \frac{\text{micrograms}}{\text{Liter}} \]

**Precision** - The reproducibility of experimental data. The precision tells how close the measured values are to each other.

**Standard** - A prepared sample, that contains a known amount of an analyte and similar amounts of other constituents, which is used to verify that a method of analysis gives accurate results.

Volume Percent  \[ = \frac{\text{volume of solute}}{\text{volume of total solution}} \times 100 \]

Weight Percent  \[ = \frac{\text{mass solute}}{\text{mass of total solution}} \times 100 \]

Example: A solution that is 95% ethanol contains 95 grams of ethanol per 100 grams of solution. The remaining component is water.