The SI unit for density is derived from the base units for mass and volume—the kilogram and the cubic meter, respectively—and can be expressed as kilograms per cubic meter, kg/m³. This unit is inconveniently large for the density measurements you will make in the laboratory, therefore you will often see density expressed in grams per cubic centimeter, g/cm³, or grams per milliliter, g/mL. The densities of gases are generally reported either in kilograms per cubic meter, kg/m³, or in grams per liter, g/L.

Density is a characteristic physical property of a substance. It does not depend n the size of the sample because as the sample's mass increases, its volume increases proportionately, and the ratio of mass to volume is constant. Therefore, density can be used as one property to help identify a substance.

Conversion Factors

A conversion factor is a ratio derived from the equality between two different units that can be used to convert form one unit to the other. You can also use conversion factors to solve problems through dimensional analysis. Dimensional analysis is a mathematical technique that allows you to use units to solve problems involving measurements.

Deriving Conversion Factors

You can derive conversion factors if you know the relationship between the unit you have and the unit you want.

Preview from Notesale.co.uk Page 2 of 2