Density is an intensive physical property obtained by dividing the mass of a material or object by its volume (i.e., mass per unit volume). Should a mass or its constituent volume be misread, this affects the density calculation. Density= Mass (m) / Volume (V) The SI base unit of mass and volume are kilograms and cubic meters, re– spectively, but chemists generally express mass in grams and volume in cubic centimeters or milliliters. The most commonly encountered density unit, then, is grams per cubic centimeter (g/cm3), or the identical grams per milliliter(g/ ml).