

## Chapter 13 Equation Sheet

Henry's law

$$C_g = k P_g$$

$$\text{Mass\% of solute} = \frac{\text{mass of solute}}{\text{total mass of solution}} \times 100$$

$$\text{ppm} = \frac{\text{mass of solute}}{\text{total mass of solution}} \times 10^6$$

$$\text{ppb} = \frac{\text{mass of solute}}{\text{total mass of solution}} \times 10^9$$

$$\text{Mole fraction of a component} = \frac{\text{moles of component}}{\text{total moles of all components}}$$

$$\text{Molarity} = \frac{\text{moles of solute}}{\text{liters of solution}}$$

$$\text{Molality} = \frac{\text{moles of solute}}{\text{kilograms of solvent}}$$

$$\Delta T_b = K_b m$$

$$\Delta T_f = K_f m$$

$$\pi = \left( \frac{n}{V} \right) RT = MRT$$