Kevin Zhang

Pre Lab 7

Preliminary Questions

1. In an experiment, 39.26 mL of 0.1062 M $NaOH$ was required to titrate 37.45 mL of unknown acetic acid solution to a phenolphathalein end point. Calculate the molarity of the acetic acid solution, and the percent (by weight) of acetic acid in the solution (assuming density to be 1.00 g/mL).

$$\text{mol of acetic} = \text{mol of NaOH} = 39.26mL \times \frac{0.1062 \text{ mol}}{1L} \times \frac{1L}{1000mL} = 0.004169 \text{ mol}$$

$$[\text{acetic}] = \frac{\text{mol of acetic}}{\text{volume}} = \frac{0.004169 \text{ mol}}{37.45mL \times \frac{1L}{1000mL}} = 0.1113M$$

$$\%\text{ weight} = \frac{\text{weight of acetic}}{\text{total weight}} \times 100\% = \frac{0.004169 \text{ mol} \times 60.052 \text{ g/mol}}{37.45mL \times 1.00\text{g/mL}} \times 100\% = 0.6\%$$

2. What is the proper disposal of all chemicals in this experiment? All chemicals should be disposed of in the WASTE ACID-BASE container.
3. List some of the hazards associated with sodium hydroxide. Toxic and corrosive. Easily absorbed through the skin.