

# Titration: Identifying the Concentration of an Acid

## Worksheet

### Standardization Data Table

	Trial 1	Trial 2	Trial 3
Mass of KHP, g			
Final volume of NaOH in the buret, mL			
Initial volume of NaOH in the buret, mL			
Volume of NaOH added, mL			

Molarity NaOH (average) \_\_\_\_\_ M

### Unknown Concentration Data Table:

Unknown # _____	Trial 1	Trial 2	Trial 3 (optional)
Volume of acid, mL			
Final volume of NaOH in the buret, mL			
Initial volume of NaOH in the buret, mL			
Volume of NaOH added, mL			

Concentration of Unknown (average) \_\_\_\_\_ M

### Post-Lab Questions and Calculations (Answer on a separate sheet of paper.)

1. From the standardization data, calculate the molarity of the sodium hydroxide solution for each trial. Average the values and enter the molarity of NaOH average above.
2. From the unknown concentration data, calculate the molarity of the hydrochloric acid solution for each trial. Average the values and enter the concentration of unknown acid average above.
3. Why must the KHP samples be dried? If they are not dried, how would the results change (high or low)?
4. Why must the NaOH be standardized? Why can't an exact solution of NaOH be prepared?