

Water Softening Worksheet

Part A. Data Table

Water sample identification number _____

	Control	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Volume of water sample (mL)						
Amount of resin used (g)						
Drops of EDTA needed to reach end-point						
Has the water been softened?						

Part B. Observations

Chemical	Test Procedure	Observations
Sodium chloride (table salt)		
Calcium chloride		
Magnesium chloride		
Potassium chloride		

Flow Chart for Resin Amount Determination *(Answer on a separate sheet of paper.)*

Fill in or complete the flowchart drawn in the *Pre-Lab* section to show the actual amounts of resin used in each trial and the progress of the experiment.

Post-Lab Questions

1. How much resin would be needed to effectively soften one liter of the unknown hard water sample? Explain how this number was determined and show your calculations.
2. Discuss the strategy of finding how much resin was needed to effectively soften the water sample.
3. Did the strategy change depending on the previous trial result?
4. What ion(s) is the resin most likely removing from hard water? Explain based on the evidence from Part B.