Acid Base Product Inquiry

Many common foods and household cleaning products are either acidic or basic. Based on what you have learned about the properties of acids and bases, devise an experiment to determine the acid or base content of a common household product. You will then use the standard acid and base in the laboratory to determine the acid or base concentration of that product.

Requirements

- Determine a product that you will use. Remember it must be compatible with the testing procedures that you should have reviewed this week. For example do not expect to see a phenolphthalein endpoint in a cherry red solution.
- Formulate a hypothesis
- Devise a procedure that will allow you to accurately measure the acid or base concentration. Be sure that you devise a procedure that will give you good data and allow for adequate controls. I recommend using multiple techniques of determining concentration.
- You will need to do at least 3 trials to get adequate data.
- You are required to do a titration as a part of your testing!

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Report

Your final report should include the following

1. Background and rationale for the products that you select.
2. A well-defined purpose and hypothesis.
3. A clear definition of what you plan to measure
4. A well written description of your methods, the materials that you are using and how you are exercising adequate controls
5. Your data, organized in a table with appropriate labels
6. An analysis of your data, outlining your findings and results
7. An evaluation of your data, including error analysis
8. In your conclusion discuss your results and explain how your findings compare with your hypothesis?
9. Include a discussion of uncertainties, errors, weaknesses in procedure and possible improvements that would give better results in the future.

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