

Determining Ascorbic Acid in Vitamin C Tablets

Name: _____

Section: _____

Date: _____

Vitamin C Brand: _____

Vitamin C Content (label): _____

Concentration of NaOH solution _____

Experimental data	Trial 1	Trial 2	Trial 3
Mass of tablet (g)			
Mass of the sample (g)			
Volume of NaOH (mL)			
Moles of vitamin C (sample)			
Mass of vitamin C (mg, sample)			
% vitamin C (mass %)			
Mass of vitamin C (mg, tablet)			
Average % vitamin C per tablet			
Average mass of vitamin C per tablet (mg)			

Show all calculations for one trial:

Post Lab Questions

1. Compare the milligrams of ascorbic acid stated on the label with experimental average mass of ascorbic acid per tablet. Briefly explain any difference.

2. In this experiment, what was the greatest source of error that limited the precision of your results? Note: question refers to precision not accuracy.

3. Suppose the beaker you used to get the NaOH solution was wet. How would this affect your reported mass of ascorbic acid? Explain your reasoning using a numerical example.

4. To retain the vitamin C content of fresh foods, it is better to keep the protective covering on fresh fruits and vegetables until just before eating. Briefly explain why.