Overview Carbonate concentration was determined using the preset endpoint titration technique which utilizes an Orion Ross combination pH electrode, and hydrochloric acid as the titrant. The Orion 960 Autochemistry System determines the endpoint and calculates the concentration of the carbonate in the sample.

Industry Food and Beverage

Species Measured Carbonate

Sample Pancake Mix

Sample Size 5.0g

Typical Concentration 0.2 %wt/wt

Technique # 8 Preset Endpoint

Electrode Ross Combination pH 8172BN

Solutions 0.05M HCl; 10%wt/wt barium chloride; electrode fill 810007

Sample Prep Weigh 5 g of sample into a 100 mL beaker. Add 50 mL deionized water. Heat to 37.8 degrees C. Remove from heat and add 10 mL 10% barium chloride solution. Filter solution through #2 Whatman filter paper. Scrape precipitate from filter paper and transfer to a 100 mL beaker. Dilute to 60 mL with deionized water. Sample now ready for analysis.

Statistics

# of Trials 4 **Mean** 0.0262%wt/wt **%CV** 3.79

Analysis Time 3.0minute(s)

Comments Rinse the electrodes, stirrer, and dispenser probe between measurements with deionized water.