



Overview

The concentration of sodium chloride in dip mixed is determined by an Orion technique called KAP Analysis. Aliquots of a sodium chloride standard are added automatically to a diluted sample containing an Orion Sodium electrode. The Orion 960 Autotitrator PLUS calculates the sample concentration and electrode slope, and verifies the results through a spike recovery test.

Market	Food and Beverage	Species Measured	Sodium Chloride
Sample	Dip Mixes	Sample Size	1.0g
Technique #	2 Multiple Known Addition	Typical Concentration	56% w/w
		Electrode	Ross Sure-Flow Combination sodium 8611BN

Solutions 1M sodium chloride; sodium ISA; Triton X-100

Sample Prep Accurately weigh about 1.0 g of each sample into a 500 mL volumetric flask, add 2 drops of Triton Z-100 and fill to the mark with deionized water. Take 50 mL aliquots of this solution and 2 mL of ISA and add to an analysis beaker. The "sample weight" entered into the method is equal to 0.1 multiplied by the weight of dip mix added to the 500 mL volumetric flask. If the dry sample is homogenous, weigh approx. 0.1 g into the analysis beaker, add 50 mL DI water and 2 mL ISA and run analysis.

Statistics

of Trials 5 **Mean** 56.12%w/w **%CV** 0.9 **Analysis Time** 2.6minute(s)

Comments Rinse the electrodes, stirrer, and dispenser probe between measurements with 1:100 ISA/ deionized water.

Method Parameters

Sample Volume/Weight	0.10 g	Timed or Stability Readings	3.0mV/min stability
Constant Increment	18.0 mV	Number of Endpoints	1
Max Titrant Volume	10.0 mL	Desired Units	% w/w
Molecular weight	58.44 g	Predose	none
Prestir	20.0 second(s)	Additional Parameters	Total Solution Volume = 52.00 mL, Precision = 2.0%
Reaction Ratio	1.00		