Thermo SCIENTIFIC

Potentiometric Titration Application Notes Applications Log # **543**

Overview The concentrations of sodium and % sodium chloride were determined by a Thermo technique called KAP Analysis. Aliquots of sodium standard are added automatically to a sample containing an Orion sodium electrode. The Orion 960 Autochemistry System calibrates the electrode and calculates the concentration.

Market	Food and Beverage	***Species Measured***	Sodium
Sample	Meat Flavorings	***Sample Size***	1.0g
		Typical Concentration	0.05% wt/wt
Technique #	2 Multiple Known Addition	***Electrode***	Sodium 8611BN

Solutions Sodium 1M KAP 650700; Sodium ISA 841111. Electrode fill solution 900010

Sample Prep Weigh out 20g sample & transfer to 100ml volumetric flask. fill w/ DI H2O. Pipette 5ml aliquot of sample place in a 100ml beaker, add 50ml DI water and 5ml sodium ISA. Titrate.

Statistics

# of Trials	4	***Mean***	0.0524%wt/wt	***%CV***	1.31	***Analysis Time***	2.0minute(s)

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

Method Parameters

Sample Volume/Weight	1.00 g	***Timed or Stability Readings***	18.0 mV/min stability
Constant Increment	0.196 mL	***Number of Endpoints***	1
Max Titrant Volume	10.00 mL	***Desired Units***	% w/w
Molecular weight	22.99 g for beef c onsomme	***Predose***	
Prestir	120.0 second(s)	***Additional Parameters***	
Reaction Ratio	1.00		