



Overview

Potassium in root beer is determined by a Thermo technique called KAP Analysis. Aliquots of a potassium standard are added automatically to a diluted sample, containing a potassium electrode. The Orion 960 calculates sample concentration and electrode slope, and verifies the results through a spike recovery test.

Market	Food and Beverage	Species Measured	Potassium
Sample	Root beer - regular	Sample Size	50 mL
		Typical Concentration	0.280 mg/ 100g
Technique #	2 Multiple Known Addition	Electrode	Potassium 9319BN; DJ Ref 900200
Solutions	(0.4m KCl in 0.1M NaNO ₃); %M ISA 931911; Deionized water; Ref Electrode Fill		
Sample Prep	Accurately weigh about 50 mL of root beer into a sample beaker and add 1 mL of ISA solution. Total solution volume is 51 mL.		

Statistics

of Trials 10 **Mean** 0.277 **%CV** 0.99 **Analysis Time** 1.3 minute(s)

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

Method Parameters

Sample Volume/Weight	49.0 g	Timed or Stability Readings	3.0 mV stability
Constant Increment	18.0 mV	Number of Endpoints	
Max Titrant Volume	15.0 ml	Desired Units	mg / 100 g
Molecular weight	39.1	Predose	none
Prestir	3.0 second(s)	Additional Parameters	
Reaction Ratio	1.00		