Thermo
ELECTRON CORPORATION

Potentiometric Titration Application Notes Applications Log # **198B**

Overview The sodium chloride value of saniflush was determined by using the first derivative titration technique with an Orion silver/sulfide ion electrode. Using silver nitrate as the titrant, the Orion Autochemistry System determines the endpoint and calculates the sodium chloride content of the saniflush sample. The sodium bisulfate value of saniflush was also determined with the same technique but with an Orion lead electrode and Orion 0.1 M lead standard.

Industry Chemical Industry

Species Measured Bisulfate

Sample Toilet Bowl Cleaner

Sample Size 2.0g

Typical Concentration 74% w/w

Technique # 6 First Derivative

Electrode Lead 9482BN; DJ Ref 9002

Solutions 5M hydrochloric acid; methanol/formaldehyde; lead STD 948207; electrode fill 900003, 900002

Sample Prep Accurately weigh 2 g of saniflush into a 500 mL volumetric flask and add deionized water to the mark. Pipet 25 mL aliquots of the sample into a sample beaker and add 25 mL of methanol formaldehyde solution and 0.2 mL of 5 M HCl. Titrate with 0.1 M lead standard. Weight for the sample is saniflush * 0.05.

Statistics

# of Trials	5	***Mean***	73.68%w/w	***%CV***	0.33

Analysis Time 2.3minute(s)

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

Method Parameters

Sample Volume/Weight	0.10 g	***Timed or Stability Readings***	5.0 second(s) timed
Constant Increment	0.200 mL	***Number of Endpoints***	1
Max Titrant Volume	7.50 mL	***Desired Units***	% w/w
Molecular weight	120.07 g	***Predose***	5.00 mL
Prestir	5.0 second(s)	***Addtional Parameters***	
Reaction Ratio	1.00		