



Thermo

ELECTRON CORPORATION

Potentiometric Titration Application Notes

Applications Log # 661

Overview

Sample of anionic surfactants were assayed by first derivative titration with Hyamine using Orion 960 Titrator PLUS.

Industry	Metal Finishing
Species Measured	Anionic Surfatants
Sample	SLS (Pilot Chemical Co)
Sample Size	1g
Typical Concentration	10-29
Technique	# 6 First Derivative
Electrode	Thermo Orion 960 Titrator PLUS.
Solutions	Orion 0.5 M Hyamine Standard (Cat. 654201); Orion Triton X-100 Sample Additive (Cat. 654203); Sodium Lauryl Sulfate Solution (Cat. 654202); Double junction fill solution (Cat. 900002);Ros reference electrode fill solution (Cat. 810007); .01M HCl; 1% Honyl
Sample Prep	Weigh out 1g of SLS in a volumetric flask. Fill to line of flask with deionized water.(Prepared sample) Pipette 10mL aliquot of prepared sample to a beaker. Pipette 1mL of HCl. Pipette either 1 deionized water.On the 960 use First Derivative technique (#6) to titrate samples.

Statistics

# of Trials	3	Mean	29.19	%CV	0.17
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Analysis Time

Comments Rinse the electrodes, stirrer, and dispenser probe thoroughly between measurements with deionized water.
Soak eletrodes in a rinse solution composed of 50mL .1M HCl to every 1000mL

Method Parameters

Sample Volume/Weight	10mL(0.04g)	Timed or Stability Readings	10.0mV/min
Constant Increment	0.211mL	Number of Endpoints	
Max Titrant Volume	5.500mL	Desired Units	%w/w
Molecular weight	288.4	Predose	
Prestir	10.0 sec	Additional Parameters	
Reaction Ratio	1.0000		