Thermo SCIENTIFIC

Potentiometric Titration Application Notes Applications Log # **641**

Overview Anionic surfactant in shampoo can be titrated with 0.05M Hyamine using the first derivative titration technique, the Orion 960 Autotitrator PLUS, and the Orion Surfactant electrode.

Market	Consumer Products	***Species Measured***	Anionic Surfactant
Sample	Shampoo	***Sample Size***	0.5g
		Typical Concentration	< 10% w/w
Technique #	66 First Derivative	***Electrode***	Surfactant electrode 9342BN. D-J Ref electrode 900200

Solutions Inner/Outer fill solution 900002, 810007. Hyamine 654201. SLS Standard 654202.

Solutions preparation: None required.

Titrant standardization Dilute 15.0 mL of SLS standard with about 85 mls of DI water in a beaker. Titrate.

Sample Prep Weigh about 0.5 g and record exact weight. Add 100mL deionized water to sample. Sample is now ready to titrate.

Statistics

# of Trials	3	***Mean***	6.70% w/w	***%CV***	0.17	***Analysis Time***	8.4 minute(s)

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

Method Parameters

Sample Volume/Weight	0.86 g	***Timed or Stability Readings***	10.0 mV/min stability
Constant Increment	0.250 mL	***Number of Endpoints***	1
Max Titrant Volume	5.00 mL	***Desired Units***	% w/w
Molecular weight	370.0	***Predose***	none
Prestir	1.0 second(s)	***Additional Parameters***	
Reaction Ratio	1.00		