

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2014

DateRun: 04/02/2014

Experimenters: Jason Marshall

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Liquid

PartType: Coupon

Contaminants: Chemical

Cleaning Methods:

Analytical Methods: Surfactant Titration

Purpose: To train staff on how to titrate quat based disinfectant product for QC

Experimental Procedure: Conducted training of lab technician at Tropical on the Standard Operating Procedure for Quality Control of Quaternary Based Products. Went over Electrode Preparation, Preparation of sodium dodecyl sulfate (SDS) Titrant, Burette Preparation, amperometric Preparation for CONCENTRATE and RTU.

Materials

- 2-Propanol (isopropyl alcohol)
- Deionized or Distilled water
- 2',7'-Dichlorofluorescein indicator 0.1% in 2-Propanol
- Glacial acetic acid
- 0.1N Silver Nitrate (AgNO₃) solution, standardized
- 0.1N Sodium Hydroxide (NaOH) solution, standardized (for Amine Hydrochloride determination)
- Phenolphthalein indicator, 1% in 2-Propanol (for Amine Hydrochloride determination)

2 burets, 1 for AgNO₃ and 1 for NaOH

Procedure

Make a 1:1 solution of 2-Propanol and Deionized or Distilled water

Accurately weigh to 0.001g of sample into a 250 mL Erlenmeyer flask

Add 50mL of the 1:1 solution of 2-Propanol and Deionized or Distilled water

Add 6 drops of 0.1% 2',7'-Dichlorofluorescein indicator

Add 1-2 drops of Glacial acetic acid, or amount sufficient to remove the fluorescence

Titrate with 0.1N AgNO₃ to the pink end-point

Procedure for Amine Hydrochloride (Amine HCl) determination

Accurately weigh to 0.001g of sample into a 250 mL Erlenmeyer flask

Add 50mL of Deionized or Distilled water

Add 6 drops of 1% Phenolphthalein indicator

Titrate with 0.1N NaOH to the pink end-point

Results:

Summary:

Conclusion: