

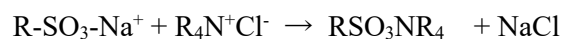
Application Memo

Surfactant in Shampoo

Industry	Cosmetics soap
Instrument	Automatic potentiometric titrator
Measurement method	Ion association titration
Standards	

1. Overview

The concentration of anionic surfactant can be calculated from the titration volume of potentiometry using an electrode for surface-active agent. Titrate with 0.05mol/L benzethonium chloride (hereinafter: Hyamine 1622) up to the endpoint. The concentration is calculated from the titration volume. The endpoint is the maximum inflexion point on the titration curve.



Where : R · · · · · Carbon chain of surfactant
R₄N⁺ · · · · · Hyamine ion

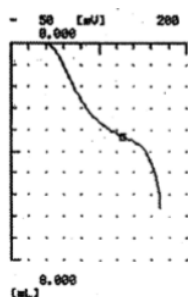
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Combined surfactant electrode

3. Reagents

Titrant	0.005mol/L Hyamine 1622 (Usage: 2.2405g Hyamine 1622 + 5mL 0.1mol/L NaOH + pure water = 1L)
Additive	1% TritonX-100, 0.01mol/L hydrochloric acid

4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	Concentration (%)
1	1.2043	3.4517	10.222
2	1.2043	3.4447	10.201
3	1.2043	3.4520	10.223
Average			10.215
SD			0.0124
RSD(%)			0.121

Please feel free to contact us for any further information.
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