

## Application Memo

# Benzalkonium Chloride

Industry	Cosmetics soap
Instrument	Automatic potentiometric titrator
Measurement method	Surfactant titration
Standards	Japanese Pharmacopoeia

## 1. Overview

Benzalkonium chloride is measured first by diluting test sample with pure water and adjusting pH with 0.1mol/L hydrochloric acid, and then by potentiometrically titrating with the 0.02mol/L sodium tetraphenylboron solution. The endpoint is determined by the inflexion from the color change of indicator on the titration curve.

Concentration of benzalkonium chloride is calculated from the titration volume of the sodium tetraphenylboron solution.

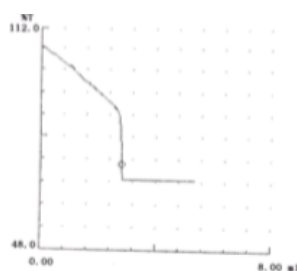
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier PTA)
Electrode	Photometric sensor Interference filter (630nm)

## 3. Reagents

Titrant	0.02mol/L sodium tetraphenylboron
Solvent	Pure water
Additive	0.1mol/L HCl
Indicator	Methyl orange

## 4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	Concentration (%)
1	10.0612	2.8465	50.227

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