## KYOTO ELECTRONICS MANUFACTURING CO., LTD.

TIQ-99339enL

## **Application Memo Concentration of Sodium Hydroxide**

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Acid-base titration
Standards	ISO 6353-2

## 1. Overview

According to ISO 6353-2: 1983 Reagents for chemical analysis-Part2: Specifications -- First series, sodium hydroxide dissolved in pure water (1mol/L NaOH) is titrated with 1mol/L hydrochloric acid up to the endpoint, which is the maximum inflexion on the titration curve. The concentration of sodium hydroxide solution is calculated from the titration volume.

 $NaOH + HCl \rightarrow NaCl + H_2O$ 

## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Combined glass electrode Temperature compensation electrode

3. Reagents

Titrant	1mo1/L hydrochloric acid solution
Solvent	Pure water

4. Example

2.00 [pH] 12.00 0.000	—Measurement results—			
		Sample	Titer	NaOH
		(mL)	(mL)	(mol/L)
• • • • • • • • • • • • • • • • • • • •	1	5.0	5.0009	0.9961
	2	5.0	4.9475	0.9854
	3	5.0	4.9761	0.9911
	Average			0.9909
8.000	SD			0.0054
[mL]	RSD(%)			0.54
-Titration curve—		•		

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