

## Application Memo

# Sodium Carbonate in 48% Sodium Hydroxide

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Neutralization titration
Standards	JIS K1200-2

## 1. Overview

Measurement for this application memo is according to JIS K 1200-2:2000 Appendix 2 which specifies quantification by automatic potentiometric titration. Two or three endpoints appear on the titration curve. The first EP (pH 7 to 8) is from sodium hydroxide. The EP (pH 4 to 5) is from sodium carbonate. The sodium carbonate concentration is calculated by subtracting the titration volume of the first EP from that of the second EP.

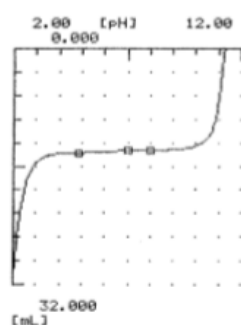
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Combined glass electrode (Internal solution: 3.33M-Potassium chloride) Temperature compensation electrode
Option	<del>Automatic Piston Burette</del>

## 3. Reagents

Titrant	1mol/L hydrochloric acid, 0.1mol/L HCl solution
Solvent	Water (Ion exchanged water or distilled water)

## 4. Example



—Titration curve—

—Measurement results—			
	Sample (mL)	EP3-EP1 (mL)	Concentration (%)
1	80.005	0.3565	0.0590
2	80.005	0.4274	0.0708
3	80.005	0.3918	0.0649
Average			0.0649
SD			0.0059
RSD(%)			9.1

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