

## Application Memo

# Sodium Picosulfate Hydrate

|                    |                                   |
|--------------------|-----------------------------------|
| Industry           | Pharmaceutical                    |
| Instrument         | Automatic potentiometric titrator |
| Measurement method | Acid-base titration               |
| Standards          | Japanese Pharmacopoeia            |

## 1. Overview

According to the test method of Japanese Pharmacopoeia, sodium picosulfate hydrate is measured as follows. Add methanol and glacial acetic acid to the sample, then titrate with 0.1mol/L acetic acid perchlorate. The endpoint is determined by the maximum inflexion on the titration curve. The concentration is calculated by the titration volume up to the endpoint.

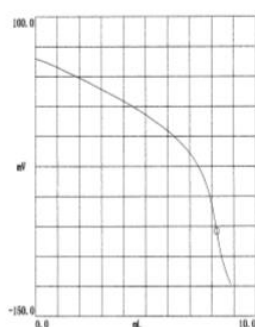
## 2. Apparatus

|           |   |
|-----------|---|
| Main unit | Automatic potentiometric titrator (preamplifier STD)  |
| Electrode | pH glass electrode<br>Double junction reference electrode<br>Temperature compensation electrode |

## 3. Reagents

|         |                                  |
|---------|----------------------------------|
| Titrant | 0.1mol/L acetic acid perchlorate |
| Solvent | Methanol                         |
| Reagent | Glacial acetic acid              |

## 4. Example



—Titration curve—

—Measurement results—

|         | Sample<br>(g) | Titer<br>(mL) | SPH<br>(mg/g) |
|---------|---------------|---------------|---------------|
| 1       | 0.4020        | 8.2186        | 98.81         |
| 2       | 0.4016        | 8.0178        | 96.49         |
| 3       | 0.4015        | 8.0166        | 96.50         |
| 4       | 0.4021        | 8.1309        | 97.73         |
| 5       | 0.4023        | 8.0052        | 96.18         |
| Average |               |               | 97.14         |
| SD      |               |               | 1.11          |
| RSD(%)  |               |               | 1.14          |

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