

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 4779.1-2017

**Determination of fluoride in bottled water for export--Method by
ion selective electrode flow injection analysis**

出口瓶装水中氟的测定 流动注射离子选择电极法

(English Translation)

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Foreword

SN/T 4779 includes the following three parts.

---SN/T 4779.2-2017 Determination of chlorine in export bottled water by flow injection ion selective electrode method;

---SN/T 4779.3-2017 Determination of total hardness in export bottled water by flow injection spectrophotometry.

This section is Part 1 of SN/T 4779.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part is proposed and managed by the National Certification and Accreditation Regulatory Commission.

This section was drafted. People's Republic of China Beijing Entry-Exit Inspection and Quarantine Bureau, Beijing Jitian Instrument Co., Ltd., Beijing Food Safety Full monitoring and risk assessment center.

1 Scope

This part of SN/T 4779 specifies the method of flow injection ion-selective electrode detection of fluorine content in bottled water.

This section applies to the determination of fluoride content in bottled drinking water and bottled drinking natural mineral water.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 6682 Analysis Laboratory Water Specifications and Test Methods

3 Method summary

The sample was diluted with equal volume of the total ionic strength buffer solution and detected by flow injection ion selective electrode method. The electromotive force and fluorine were used.

The linear relationship of the negative activity values of the sub-activities was determined by the standard curve and external standard method.

4 Reagents and materials

Except where otherwise stated, the reagents used were of analytical grade, and the water used was a grade one water according to GB/T 6682.

4.1

Sodium chloride (NaCl).

4.2

Sodium acetate (CH₃COONa).

4.3

Sodium citrate (Na₃C₆H₅O₇).

4.4

Acetic acid (CH₃COOH). 36%.

4.5

Total ionic strength buffer solution (TISAB solution). 58 g of sodium chloride (4.1), 102 g of sodium acetate (4.2), sodium citrate (4.3) 0.294 g, 42 mL of acetic acid (4.4) was added and diluted with water to 1L.

4.6

fluoride standard stock solution. 1000mg/L (in F).

4.7

Current-carrying. In a 1L reagent bottle, add 500mL of TISAB solution, add 0.05mg of fluoride ion standard solution and make constant volume with water.

To 1L.

4.8

Standard Working Solution. Pipette appropriate amount of fluoride standard stock solution (4.7) into a set of 100 mL containing 50 mL TISAB solution in a volumetric flask, volume is

adjusted to the mark with water, and the fluoride ion concentration is 0.05 mg/L, 0.10 mg/L, 0.20 mg/L, 0.40 mg/L, respectively.

0.80 mg/L, 1.00 mg/L standard solution. The standard working solution needs to be used now.

4.9

filter. 0.45 μ m, aqueous phase.

5 Instruments and Equipment

5.1

Flow Injector (FIA). equipped with a complex fluoride ion selective electrode.

5.2

analytical balance. the amount of sense is 0.01g, 0.001g.