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# INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

# SN/T 3653-2013

## Food contact materials. Inorganic nonmetallic materials. Determination of fluoride release from water simulants. Ion chromatography

食品接触材料 无机非金属材料 水模拟物中氟离子的测定 离子色谱法食品接触材料 无机非金属材料 水模拟物中氟离子的测定 离子色谱法

**(English Translation)**

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## Foreword

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

Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Shanghai Entry-Exit Inspection and Quarantine Bureau.

## 1 Scope

This standard specifies the method of ion chromatography in food contact materials in the water mimics fluoride ion.

This standard is applicable to the determination of water in food contact materials simulants fluoride ion in.

## 2 Normative references

The following documents for the application of this document is essential, dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

Preparation of standard solution of GB/T 602 Determination of impurities in chemical reagents Laboratory use specifications and test methods GB/T 6682 Analysis



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## 3 Method summary

The samples were boiling water extraction, at (22 ± 2) °C standing 24h, determination of the leach liquor fluoride ions by ion chromatography.

## 4 Reagents and materials

Unless otherwise indicated, the reagents used were of analytical grade water as a water GB/T 6682 regulations.

**4.1**
anhydrous sodium carbonate, Na2CO3.

**4.2**
anhydrous sodium bicarbonate, NaHCO3.

4.3 0.5mol/L sodium carbonate solution. Weigh 53g of anhydrous sodium carbonate (4.1) solids, soluble in water, dilute to 1000mL, filtration, concentration 0.5mol/L.

4.4 0.5mol/L sodium bicarbonate solution. Weigh 42g sodium bicarbonate (4.2) solids, soluble in water, dilute to 1000mL, filtration, concentration 0.5mol/L.

**4.5**
eluent. accurate Pipette 18mL0.5mol/L sodium carbonate solution (4.3) and 5.6mL0.5mol/L sodium bicarbonate solution (4.4) to a 2L flask with water to volume, as the eluent solution containing 4.5mmol/L sodium carbonate and 1.4mmol/L Sodium bicarbonate.

**4.6**
Water fluoro standard substance, according to GB/T 602 methods of preparation, or directly use the element standard solution within the validity period of the certificate Solution.

**4.7**
standard solution. Pipette the appropriate amount of water fluoro standard material, with eluent formulated as 0.01μg/mL, 0.05μg/mL, 0.1μg /mL, 0.5μg/mL, standard solution 1.0μg/mL, and this solution is using now.

## 5 Instruments and devices

**5.1**
Ion chromatograph. with digital conductivity detector.



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