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SN

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SN/T 3727-2013

Determination of iodide content in foods for export. Ion chromatography

进出口食品中碘含量的测定 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.

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

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

1 Scope

This standard specifies the ion chromatographic method iodine in food exports.

This standard applies to food as well as the determination of iodine in salt content of dairy products, rice and other infant nutrition.

2 Normative references

The following documents for the application of this document is essential. For 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

3 Method summary

Infant food samples dissolved in water, ultrasonic extraction, add acetonitrile protein precipitation by centrifugation, the supernatant was removed fat RP column and other impurities, iodide ion chromatography, pulsed amperometric detector. If the sample is added potassium iodate infant food, was added at the time of extraction Ascorbic acid reducing iodate into iodine ions. Salt water sample is dissolved, iodide ion chromatography, pulsed

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amperometric detector inspection Measurement. If the sample is added potassium iodate salt, in the extraction of ascorbic acid was added again to restore iodate into iodine ions.

4 Reagents and materials

Unless otherwise specified, the reagents were of analytical grade above the water line with GB/T 6682 in a water requirements. Test used in the standard Standard solution, did not indicate when the other requirements, according to GB/T 602 provisions of the preparation.

4.1
acetonitrile. chromatography.

4.2
Methanol. chromatographically pure.

4.3
nitrate.

4.4
ascorbic acid.

4.5
ascorbic acid solution (5g/100mL). Weigh 5g ascorbic acid (4.4) were dissolved in 100mL water.

4.6
eluent c (HNO3) = 50mmol/L. lessons 3.12mL nitric acid (4.3), add water to 1000mL, and mix.

4.7
eluent c (HNO3) = 10mmol/L. lessons 0.63mL nitric acid (4.3), add water to 1000mL, and mix.

Potassium iodide 4.8 Standard. reference reagent purity of not less than 99.9%.

4.9
potassium iodate standard. reference reagent purity of not less than 99.5%.

4.10
standard stock solution of potassium iodide (1000mg/L). Weigh accurately 0.1308g (accurate to 0.1mg) potassium iodide (4.8), add water to dissolve, and diluted to 100mL. At 4 °C dark preservation, valid for one month.

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4.11

standard potassium iodate stock solution (1000mg/L). Weigh accurately 0.1686g (accurate to 0.1mg) of potassium iodate (4.9), add water to dissolve, and diluted to 100mL. At 4 °C preservation, valid for one month.

4.12

purification column (reverse phase chromatography column, 1mL), prior to use successively with 5mL methanol (4.2), 5mL water activation.

4.13

nylon filter. 0.22μm.

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