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SN

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SN/T 3863-2014

Determination of water soluble basic dyes in foods for export - LC-MS/MS method

出口食品中水溶性碱性着色剂的测定 液相色谱-质谱/质谱法

(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 content of this document may involve patents, publication of this document Institutions do not assume the responsibility to identify 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, Chinese Academy of Inspection and Quarantine, the People's Republic of China Exit Inspection and Quarantine and the State Beijing.

1 Scope

This standard specifies the basic orange II, basic yellow O, Basic Fuchsin, Basic Violet 5BN, Determination of rhodamine B in food exports.

This standard applies to hard candy, lobster, syrup, jam, biscuits, preserves, yogurt, luncheon meat, fruit juice five kinds of aqueous alkaline colorant Liquid chromatography - mass spectrometry/mass spectrometry and confirmation.

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.

Laboratory use specifications and test methods GB/T 6682 Analysis

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3 Method summary

Sample aqueous alkaline colorants with water and n-hexane saturated acetonitrile extraction using C18 reversed phase packing Dispersive SPE Emulated purification, reversed-phase column separation, liquid chromatography - mass spectrometry/mass spectrometer, external standard.

4 Reagent material

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

4.1
acetonitrile. chromatography.

4.2
hexane. chromatographically pure.

4.3
sodium citrate.

4.4
Disodium hydrogen citrate.

4.5
sodium chloride.

4.6
anhydrous magnesium. 550 °C burning 4h, stored in a desiccator.

4.7
C18 powder. particle size of 40μm ~ 63μm, the average pore size 60Å, the carbon content of 17%.

4.8
formic acid. purity >=99%.

4.9 5% (volume fraction) formic acid - acetonitrile. 5mL amount of formic acid dissolved in 95mL of acetonitrile.

4.10
containing 20mmol/L ammonium formate and 0.1% formic acid. Weigh 1.26g of ammonium formate and formic acid is dissolved in 1mL water and the volume to 1L.

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4.11
Extraction packet. contains 4g anhydrous magnesium sulfate, 1g NaCl, 1g sodium citrate, 0.5g Disodium hydrogen citrate.

4.12
decontamination kits. Includes 150mgC18 powder, 900mg anhydrous magnesium sulfate.

4.13
standard substance. standard aqueous alkaline colorant material purity >=98.0%. For more information, see Appendix A standard substance in Table A.1.

4.14
Standard stock solution preparation. Accurately weigh an appropriate amount of colorants standards, prepared in methanol at a concentration of 1.0mg/mL of standard stock Preparation of the solution. The solution was formulated in a brown flask below -18 °C dark preservation, valid for one month.

4.15
formulated standard intermediate solution. methanol standard stock solution was diluted to a final concentration of about 1.0μg/mL, the solution was formulated in a brown container

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