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ICS 67.050
CCS X04

SN

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SN/T 3850.2-2014

Determination of sugar alcohol sweeteners in foods for export - Part 2: GC method

出口食品中多种糖醇类甜味剂的测定 第2部分：气相色谱法

(English Translation)

Issued on: January 13, 2014 **Implemented on: August 1, 2014**

Issued by: General Administration of Customs

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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. Distribution 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. Gansu People's Republic of China Exit Inspection and Quarantine.

1 Scope

This standard specifies the foods erythritol, xylitol, mannitol, sorbitol and maltitol five kinds of sugar alcohol sweeteners Gas Chromatographic method.

This standard applies to candy (including chewing gum), biscuits, bread, milk, beverages (including milk drinks) and other sugar-free foods erythritol, Xylitol, mannitol, sorbitol and maltitol measured alcohol content.

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

Water samples were extracted in sugar alcohols, purified, acetylation reaction after removal of water. Produced alditol acetate derivatives, with use Flame ionization detector capillary gas chromatograph determination, external standard.

4 Reagents and materials

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

4.1
petroleum ether. boiling range 30 °C ~ 60 °C.

4.2
of acetic anhydride.

4.3
dry pyridine. pure class distinctions.

4.4
N, N- dimethylformamide (DMF).

4.5
sucrose.

4.6
TCA.

4.7
TCA solution. Weigh 2.5g trichloroacetic acid dissolved in water and dilute to 1L, the concentration of 2.5g/L.

4.8
sugar alcohol standard. Purity >=99%, sugar alcohols basic information Table A.1.

4.9
sugar alcohol standard stock solution. Weigh 0.25g (precise to 0.1mg) erythritol, xylitol, mannitol, sorbitol and malt Sugar alcohol standards dissolved in water and dilute to 25mL, the concentration of each standard stock solution of 10mg/mL, stored at 0 °C ~ 4 °C refrigerator.

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4.10

mixed standard working solution. Pipette respectively erythritol, xylitol, mannitol, sorbitol and maltitol standard stock solution each added 10.0mL in 100mL flask, diluted with water to volume, and mix. This standard solution of each substance concentration was 1.0mg/mL, in 0 °C ~ 4 °C refrigerator.

5 Apparatus

5.1

Gas chromatograph. equipped with a flame ionization detector.

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