

ICS 67.020
CCS C 53

SN

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

SN/T 1924-2011

Replacing SN/T 1924-2007

**Determination of clenbuterol, ractopamine, salbutamol and
terbutalin residues in foodstuffs of animal origin for import and
export. HPLC-MS/MS Method**

进出口动物源食品中克伦特罗、莱克多巴胺、沙丁胺醇和特布他林残留量的测定
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.

Instead of the standard SN/T 1924-2007 "Importers clenbuterol in food of animal origin, Lecco dopamine, salbutamol, terbutaline Detection of Residual liquid chromatography - mass spectrometry/mass spectrometry. " this standard compared with SN/T 1924-2007, the main technical changes are as follows.

- Increasing the scope of food of animal origin fine bone soup, milk and milk powder;
- Sample before adding n-hexane degreasing step;
- By a C18 solid phase extraction column and cation exchange column changed to mixed cation exchange column;
- Sample liquid solvent consisting of aqueous acetonitrile (19) is amended as 0.1% formic acid;
- Clenbuterol ion monitoring by the 277.3/203.0,277.3/modify 277.0 259.2/203.0,277.0/132.0, 277.0/168.0;
- The experiments prove that the lower limit of the measurement Clenbuterol 0.5µg/kg revised to 0.05µg/kg.

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

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

1 Scope

This standard specifies the import and export of food of animal origin clenbuterol, ractopamine, salbutamol and terbutaline residual amount of liquid chromatography Spectrum - mass spectrometry/mass spectrometry (HPLC-MS/MS) method for the determination and confirmation.

This standard applies to the import and export of food of animal origin muscles, organs, bone soup and fine milk, milk powder clenbuterol, ractopamine, sand Butylamine alcohol terbutaline Residues Determination 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

3 Method summary

Sample of clenbuterol, ractopamine, salbutamol and terbutaline residue using beta-glucuronidase enzyme glycosides/aryl sulfatase enzyme Solution of ammonium acetate buffer solution extraction, hexane, and the aqueous phase solution was mixed cation exchange solid phase extraction (SPE), HPLC-MS/MS Determination of internal standard.

4 Reagents and materials

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

4.1

acetonitrile. HPLC grade.

4.2

Methanol. HPLC grade.

4.3

hexane. HPLC grade.

Ethyl acetate 4.4. HPLC grade.

4.5

formic acid. HPLC grade.

Ammonium acetate 4.6. HPLC grade.

Concentrated hydrochloric acid 4.7. content of 36 to 38%.

Ammonia 4.8. content of 25% to 28%.

4.9

beta- glucuronidase enzyme glycosides/arylsulfatase solution. glycosides containing [beta] glucuronidase enzymes 111000U/mL; arylsulfatase 1079U/mL.

4.10

ammonium acetate buffer solution (2mol/L). Weigh ammonium acetate (4.6) 77.0g, diluted with water and dilute to 500mL, and mix with B Acid adjusted to pH 5.2.

4.11 0.1% formic acid solution. Pipette 1.0mL of formic acid (4.5), diluted with water and dilute to 1000mL, and mix.

4.12 0.1mol/L hydrochloric acid solution. take 9mL concentrated hydrochloric acid (4.7), diluted with water to 1000mL, and mix.