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

GB 23200.58-2016

Replacing SN/T 2386-2009

**Food safety national standard -- Determination of residual
residues of chlorhexonium chloride in food by liquid
chromatography-mass spectrometry / mass spectrometry**

食品中氯酯磺草胺残留量的测定 液相色谱-质谱 质谱法

(English Translation)

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Foreword

This standard replaces SN/T 2386-2009 "Determination of residual residues of chlorhexonium bromide in food for import and export by liquid chromatography-mass spectrometry/mass spectrometry".

Compared with SN/T 2386-2009, the main changes are as follows.

- Standard text format is modified to national standard text format for food safety;
- the name of the "import and export food" to "food";
- increase the "other food reference implementation" in the standard range.

This standard replaced the previous version of the standard release.

-SN/T 2386-2009.

National standards for food safety Determination of residual residues of chlorhexonium chloride in food Liquid chromatography - mass spectrometry/mass spectrometry

1 Scope

This standard specifies the method of liquid chromatography-mass spectrometry/mass spectrometry for the determination of chlorhexonium chloride residues in food.

This standard applies to corn, rice, soybeans, chestnuts, walnuts, cabbage, tomatoes, peppers, spinach, onions, oranges, strawberries, Mango, cherry, mushrooms, tea and other plant-derived products and chicken liver, liver, milk and other animal-derived products in the residual content of chlorhexonium Testing and confirmation, other food can refer to the implementation.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this file. For undated references, the latest edition (including all modifications) applies to this document.

GB 2763 National Standard for Food Safety - Maximum Residue Limit of Pesticides in Foodstuffs GB/T 6682 Analytical laboratory water specifications and test methods

3 Principle of the method

The residual chlorosulfanethrin in the sample was extracted with 1% acetic acid and acetonitrile, dispersed with solid phase extractant, and analyzed by liquid chromatography-tandem mass spectrometry Measurement and external standard method.

4 Reagents and materials

Unless otherwise specified, all reagents are of analytical grade and water is in accordance with the primary water specified in GB/T 6682.

4.1 Reagents

4.1.1

Acetonitrile (CH_3CN).

4.1.2

Ammonium acetate ($\text{CH}_3\text{COONH}_4$).

4.1.3

Acetic acid (CH_3COOH).

4.1.4

Formic acid (HCOOH).

4.1.5

anhydrous magnesium sulfate (MgSO_4). analytical grade.

4.1.6

anhydrous sodium acetate (CH_3COONa). analytical grade.

4.2 Solution preparation

4.2.1

Acetic acid-acetonitrile solution (1 99, V/V). Take 10 mL of acetic acid, add 990 mL of acetonitrile and mix well.

4.2.2 5 mm ol/L ammonium acetate solution (containing 0.1% formic acid). accurately weighed 77.0 mg ammonium acetate in.200 mL volumetric flask, first with A small amount of water dissolved after adding.200 μL formic acid, and then the water volume to the scale, mixing, is now with the distribution.

4.3 Standards

4.3.1

clausansulamines (cloransulam-methyl). CAS No. 147150-35-4, molecular formula $\text{C}_{15}\text{H}_{13}\text{FN}_5\text{O}_5\text{S}$, points Molecular weight 429.81, purity $\geq 99\%$.

4.4 Standard solution preparation

4.4.1

standard solution of chlorhexonium bromide standard solution. accurately weighed the appropriate amount of chlorhexidine sulfa standard (accurate to 0.1 mg), with acetonitrile dissolved Solution, prepared into 1000 $\mu\text{g/mL}$ standard stock solution, stored at $-18\text{ }^\circ\text{C}$.

4.4.2

Chlorobenzenesulfonium standard working solution. diluted with acetonitrile as required 1µg/mL standard working solution, stored at -18 °C.

4.4.3

Substrate blank solution. The solution obtained by treating the negative samples of different substrates according to "7 Analysis Procedure".

4.4.4

matrix standard working fluid. according to the needs of the experiment to absorb the appropriate amount of standard solution of chlorhexonium bromide solution, diluted with a matrix blank solution when the concentration of the standard working fluid, is now available.

4.5 Materials

4.5.1

Graphitized Carbon Black Adsorbent. 120 µm to 400 µm.

4.5.2

N-propyl ethylenediamine (PSA) adsorbent. 40 µm to 60 µm.

4.5.3

Octadecylsilane (ODS) Bonded Adsorbent (C18). 40 µm to 60 µm.

4.5.4

Microporous membrane. 0.2µm, organic phase type.

5 Instruments and equipment

5.1

High Performance Liquid Chromatography-Tandem Mass Spectrometer with Electrospray Ion Source (ESI).

5.2

Crusher.

5.3

Tissue crusher.

5.4

Balance. 0.01 g and 0.0001 g.