



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

GB 23200.53-2016

Replacing SN/T 2236-2008

**Food safety national standard -- Determination of fenosilazole
residues in foodstuffs by gas chromatography-mass
spectrometry**

食品中氟硅唑残留量的测定 气相色谱-质谱法

(English Translation)

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Foreword

This standard replaces SN/T 2236-2008 "Determination of Fluorosilicon Residue in Import and Export Food by Gas Chromatography-Mass Spectrometry".

This standard compared with SN/T 2236-2008, 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 2236-2008.

National standards for food safety Determination of fenosilazole residues in foodstuffs by gas chromatography - mass spectrometry

1 Scope

This standard specifies the method for the determination and confirmation of the content of fenosilazole residues in food by gas chromatography-mass spectrometry.

This standard applies to rice, soybeans, small cabbage, fresh peas, pears, citrus, peanuts, tea, beef, chicken, shrimp, honey Determination and confirmation of fluorosilazole residues, 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 article Pieces. 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

Samples were extracted with acetonitrile, fruits and vegetables were graphitized with carbon black and amino solid phase extraction tandem purification, grain, nuts, meat, tea and honey by Florian silica solid phase extraction column purification, gas chromatography - mass spectrometry detection and confirmation, external standard quantitative.

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 (CH₃CN). Chromatographically pure.

4.1.2

Toluene (C₇H₈). Chromatographic pure.

4.1.3

n-hexane (C₆H₁₄). chromatographic purity.

4.1.4

ether (C₄H₁₀O). chromatographic purity.

4.1.5

sodium chloride (NaCl). analytical pure, 650 °C burning 4 h, in the dryer to cool to room temperature, stored in a sealed bottle in reserve.

4.1.6

anhydrous sodium sulfate (Na₂SO₄). analytical pure, 650 °C burning 4 h, in the dryer to cool to room temperature, stored in a sealed bottle in reserve.

4.2 Solution preparation

4.2.1

n-Hexane - Ether (8 2). take 800 mL of n-hexane, add.200 mL of ether, shake and mix.

4.2.2

acetonitrile - toluene (7 3). take 700 mL of acetonitrile, add 300 mL of toluene, shake ready for use.

4.3 Standards

4.3.1

Flusilazole, C₁₆H₁₅F₂N₃ Si, CAS No. 85509-19-9, molecular weight 315) Standard substance. purity > 99%.

4.4 Standard solution preparation

4.4.1

Fenroxazole standard solution. accurately weighed the appropriate amount of fluorosilicone standard material, with acetonitrile dubbed the concentration of 100 g/mL standard reserve liquid. According to the need to use acetonitrile diluted to the appropriate concentration of standard working fluid. The standard stock solution is stored in 0 °C ~ 4 °C refrigerator, valid for 12 Month, the standard working fluid in 0 °C ~ 4 °C refrigerator to save, valid for 6 months.

4.5 Materials

4.5.1

Graphitized Carbon Black Solid Phase Extraction Column. Envi-Carb, 6 mL, 500 mg or equivalent.

4.5.2

Amino solid phase extraction column. Sep-Pak, 3 mL, 500 mg or equivalent.

4.5.3

Florisil Solid Phase Extraction Column. LC-Florisil, 6 mL, 1 g or equivalent. Before addition, add 5 mL of n-hexane-ether (8/2) Pre-leaching column.

4.5.4

Tandem Column. About 20 mm high anhydrous sodium sulphate was added to the graphitized carbon black solid phase extraction column, and the column was ligated to an amino solid phase extraction the top of the column was pre-leached with 5 mL of acetonitrile-toluene (7/3).

5 Instruments and equipment

5.1

Gas Chromatography-Mass Spectrometer. Equipped with an electron impact source (EI).

5.2

Analysis of balance. 0.01 g and 0.0001 g.

5.3

Centrifuge. speed greater than 5 000 r/min.

5.4

nitrogen blowing instrument.

5.5

Rotary evaporator.

5.6

Homogenizer.

5.7

solid phase extraction device.