



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

**GB 23200.52-2016**

Replacing SN/T 2235-2008

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**Food safety national standard -- Determination of residues of  
cyclic azole in food by gas chromatography-mass spectrometry**

食品中嘧菌环胺残留量的测定 气相色谱-质谱法

**(English Translation)**

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### Foreword

This standard replaces SN/T 2235-2008 "Determination of azoethine residues in food for import and export by gas chromatography-mass spectrometry".

This standard compared with SN/T 2235-2008, the main changes are as follows.

- Standard text format is modified to national standard text format for food safety;
- the name and scope 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 2235-2008.

National standards for food safety Determination of residues of cyclic azole in food by gas chromatography - mass spectrometry

## 1 Scope

This standard specifies the method of gas chromatography-mass spectrometry detection and confirmation of azoxycillin residues in food.

This standard applies to rice, soybeans, small cabbage, sweet peas, pears, citrus, peanuts, tea, beef, chicken, shrimp, honey Detection and confirmation of residual residues of azoxystrobin 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

The residual azoxystrobin in the sample was extracted with n-hexane-acetone (1 1, by volume), washed with gel permeation column and propanesulfonylsilane Base silica gel cation exchange column purification, gas chromatography - mass spectrometry detection and confirmation, external standard method 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

n-hexane (C<sub>6</sub>H<sub>14</sub>). chromatographic purity.

#### 4.1.2

Acetone (C<sub>3</sub>H<sub>6</sub>O). Chromatographic pure.

#### **4.1.3 Cyclohexane (C<sub>6</sub>H<sub>12</sub>). Chromatographic Purification. The**

4.1.4 ethyl acetate (C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>). chromatography pure.

4.1.5 Methanol (CH<sub>3</sub>OH). Chromatographic Purification.

4.1.5 Ammonia (NH<sub>3</sub> · H<sub>2</sub>O). Analytical purity.

#### **4.1.7 Hydrochloric acid (HCl). Analytical purity. The**

4.1.8 Sodium chloride (NaCl). Analytical purity.

4.1.9 anhydrous sodium sulfate (Na<sub>2</sub>SO<sub>4</sub>). analysis of pure, 650 °C burning 4h, in the dryer to cool to room temperature, stored in a sealed bottle in reserve.

### **4.2 Solution preparation**

4.2.1 0.1 mol/L hydrochloric acid solution. the amount of 9 mL of hydrochloric acid, add appropriate amount of water diluted to 1000 mL.

### **4.3 Standards**

#### **4.3.1**

Cyprodinil standard substance. purity > 99%, molecular formula. C<sub>14</sub>H<sub>15</sub>N<sub>3</sub>, molecular weight. 225.3 CAS Registry Number. 121552-61-2.

### **4.4 Standard solution preparation**

#### **4.4.1**

azoxystine standard solution. accurately weighed the appropriate amount of azoxicillin amine standard material, with acetone dosing concentration of 100 g/mL standard Stock solution. According to the need to use acetone diluted to the appropriate concentration of standard working fluid. The standard stock solution is stored in 0 °C ~ 4 °C refrigerator, valid period for 12 months, the standard working fluid in 0 °C ~ 4 °C refrigerator to save, valid for 6 months.

### **4.5 Materials**

#### **4.5.1**

Propanesulfonylsilyl Silicone Cation Exchange Column. 3 mL, 500 mg or equivalent.

## **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.

**5.8**

Multifunctional food mixers.

**5.9**

Shredder.

**5.10**

gel permeation chromatography.

**5.11**

Vortex Mixer.

**6.1.1 Tea, grain category**

Approximately 500 g of the representative sample was ground and pulverized by a pulverizer and passed through a 2.0 mm round hole sieve, mixed and sealed in a clean container.

mark.

**6.1.2 Vegetables, fruits and nuts**

Replace the sample of about 500 g, chopped, the multi-functional food mixer fully mashed evenly, into a clean container sealed, marked the standard Remember.