



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

GB 23200.72-2016

Replacing SN/T 3143-2012

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

食品中苯酰胺类农药残留量的测定 气相色谱-质谱法

(English Translation)

Issued on: December 18, 2016

Implemented on: June 18, 2017

**Issued by: National Health and Family Planning Commission of the
People's Republic of China, State Food and Drug Administration**

Table of Contents

Foreword	
1 Scope	
2 Normative reference documents	
3 Principle	
4 Reagents and materials	
4.1 Reagents	
4.2 Solution preparation	
4.3 Standards	
4.4 Standard solution preparation	
4.5 Materials	
5 Instruments and equipment	
6 Preparation and storage of samples	
6.1 Sample preparation	
6.2 Sample storage	
7 Analysis steps	
7.1 Extraction	
7.2 Purification	
7.3 Determination	
7.4 Blank experiment	
8 Results are calculated and expressed	
9 Precision	
10.1 Limit of limits	
10.2 Recovery rate	
25 Standard spectrum of benzamide pesticide standard	

Foreword

This standard replaces SN/T 3143-2012 "Determination of benzamide pesticide residues in export food by gas chromatography-mass spectrometry".

Compared with SN/T 3143-2012, 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 "export food" to "food";

- Add "other food can refer to execution" in the standard range.

This standard replaced the previous version of the standard release.

-SN/T 3143-2012

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

1 Scope

This standard specifies the method of gas chromatography-mass spectrometry for the determination of 25 benzamide pesticide residues in foodstuffs (see Appendix A).

This standard applies to corn, spinach, mushrooms, apples, soybeans, chestnuts, tea, beef, beef liver, chicken, fish, milk 25 kinds of benzamide pesticide residues in the determination 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 date of the date 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 Limits for Pesticides in Foodstuffs GB/T 6682 Analytical laboratory water specifications and test methods

3 Principle

The samples were extracted with acetone-n-hexane, extracted with graphitized carbon black solid phase extraction column or neutral alumina solid phase extraction column. Gas chromatography-Mass spectrometer determination and confirmation, external standard method quantitative.

4 Reagents and materials

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

4.1 Reagents

4.1.1

n-hexane (C₆H₁₄). pure chromatography.

4.1.2

Acetone (CH_3COCH_3). Chromatographic pure.

4.1.3

Sodium chloride (NaCl).

4.1.4

anhydrous sodium sulfate (Na_2SO_4). 650 °C burning 4 h, set the dryer in the spare.

4.2 Solution preparation

4.2.1

Acetone-n-hexane solution (1 2, V/V). Take 100 mL of acetone, add.200 mL of n-hexane and shake well.

4.2.2

acetone - n-hexane solution (1 1, V/V). take.200 mL of acetone, add.200 mL of n-hexane, shake back.

4.3 Standards

4.3.1

Benzamide Pesticide Reference Material. See Appendix A.

4.4 Standard solution preparation

4.4.1

benzamide pesticide standard stock solution. were accurately weighed appropriate amount of benzamide pesticide standard substances, with acetone prepared into 1 000 $\mu\text{g/mL}$ standard stock solution, the standard solution away from 0 °C ~ 4 °C preservation, shelf life of 6 months.

4.4.2

benzamide pesticide standard working solution. According to the testing requirements, respectively, the amount of the standard stock solution in the same capacity bottle, with N-hexane diluted to the standard preparation of the appropriate concentration of the standard working solution, the standard solution away from 0 °C ~ 4 °C preservation, shelf life of one month.

4.5 Materials

4.5.1

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

4.5.2

Neutral Alumina Solid Phase Extraction Column. 6 mL 500 mg, or equivalent.

5 Instruments and equipment

5.1

Gas Chromatography-Mass Spectrometer, with electron bombardment ion source (EI source).

5.2

Tissue crusher.

5.3

Crusher.

5.4

Analytical balance. 0.01 g and 0.0001 g.

5.5

Scroll Mixer.

5.6

solid phase extraction device with vacuum pump.

5.7

Centrifuge. 6 000 r/min.

5.8

Centrifuge tube. 50 mL.

5.9

scale tube. 15 mL.

5.10

Microiner. 10 μ L.

6.1.1 Fruits, mushrooms or vegetables

Take a representative sample of 500 g, after shredding (not available in water), and the sample is processed into a slurry using a crusher. Mix well and put it clean Within the sample container, seal and mark the mark.