



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

GB 23200.30-2016

Replacing SN/T 1981-2007

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

食品中环氟菌胺残留量的测定 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**

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Foreword

This standard replaces SN/T 1981-2007 "Determination of cyclophosphamide residue in export food by gas chromatography-mass spectrometry".

The main changes in this standard compared with SN/T 1981-2007 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";

- increase the "other food reference implementation" in the standard range.

This standard replaced the previous version of the standard release.

-SN/T 1981-2007.

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

1 Scope

This standard specifies the preparation of cyclophosphamide residues in food and gas chromatography-mass spectrometry.

This standard applies to wheat, corn, peanuts, pineapples, apples, green onions, carrots, basil leaves, honeysuckle, ginger powder, pepper powder and Determination and confirmation of cyclophosphamide residues in tea, and other foods may be referred 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 samples were extracted with the extract, and the solution was dehydrated with sodium chloride. The samples were washed with Envi-Carb/LC-NH₂ column or C18 solid phase extraction column or Florisil Column chromatography, gas chromatography - mass spectrometry, 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 (C₂H₃N). Chromatographic pure.

4.1.2

n-hexane (C₆H₁₄). pure chromatography.

4.1.3

Acetone (C₃H₆O). Chromatographic pure.

4.1.4

ether (C₄H₁₀O). chromatographic purity.

4.1.5

Toluene (C₇H₈). Chromatographic pure.

4.1.6

sodium chloride (NaCl). excellent grade pure.

4.1.7

anhydrous sodium sulfate (Na₂SO₄). analytical pure, 650 °C burning 4 h, after natural cooling stored in a sealed bottle in reserve.

4.2 Solution preparation

4.2.1

Phosphate buffer. 0.5 mol/L (pH = 7.0), weigh 52.7 g of dipotassium hydrogen phosphate (K₂HPO₄) and 30.2 g of potassium dihydrogen phosphate (KH₂PO₄), add about 500 mL of water dissolved, with 1 mol/L sodium hydroxide or 1 mol/L hydrochloric acid to adjust pH7.0, add water to volume 1L.

4.3 Standards

4.3.1

Reference substance. Cyflufenamid, C₂₂H₁₇F₅N₂O₂, CASNO. 180409-60-3, purity ≥98%;

4.4 Standard solution preparation

4.4.1

cyclofluramine standard stock solution. Weigh the appropriate amount of cyclofluoride standard, with acetone - n-hexane (1 1) prepared into 1.0 mg/mL standard Quasi-stock solution; 0-4 0C save.

4.4.2

Cyclofluorescein Standard working solution. Prepare the stock solution with acetone-n-hexane (1 1, V/V) as required.

Quasi working fluid. 0-4 0C save.

4.5 Materials

4.5.1

Envi-Carb/LC-NH₂ solid phase extraction column. 500 mg/500 mg.

4.5.2

C18 solid phase extraction column. 1000 mg.

4.5.3

Florisil. Florisil, 0.150-0.250 mm;

4.5.4

Florisil Column. The glass column 30 cm x 15 mm (id) was charged with 1 cm high anhydrous sodium sulfate, 10 g Florisil and 1 cm high anhydrous sodium sulfate.

5 Instruments and equipment

5.1

Gas Chromatography-Mass Spectrometer. Equipped with an electronically bombarded ion source (EI source).

5.2

Analysis of balance. 0.01 g and 0.0001 g.

5.3

Oscillator.

5.4

whirlpool mixer.

5.5

Rotary Evaporator.

5.6

high speed homogenizer.

5.7

Centrifuge.

5.8

Centrifuge tube. 100 mL.