



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

GB 23200.57-2016

Replacing SN/T 2322-2009

**Food safety national standard -- Determination of Acetochlor
Residues in Foods**

食品中乙草胺残留量的检测方法

(English Translation)

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Foreword

This standard replaces SN/T 2322-2009 "Method for the detection of acetochlor residues in food for import and export".

Compared with SN/T 2322-2009, the main changes are as follows.

- Standard text format is modified to national standard text format for food safety;

- the name 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 2322-2009.

National standards for food safety Determination of Acetochlor Residues in Foods

1 Scope

This standard specifies the determination of acetochlor residues in food by gas chromatography, gas chromatography - mass spectrometry and sample preparation methods.

This standard applies to the determination of acetochlor residues in peanuts, soybeans, corn, wheat, onions, seaweed, chicken, pork, cashew nuts and pine Set, 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 acetochlor residue in the sample was extracted with acetonitrile or ethyl acetate and purified by gel permeation chromatography (GPC) and/or silica gel SPE (SPE) Purification was carried out by gas chromatography (GC) and gas chromatography - mass spectrometry (GC - MS).

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 (C₆H₁₄).

4.1.2

Ethyl acetate (C₄H₈O₂).

4.1.3

Cyclohexane (C₆H₁₂).

4.1.4

Acetonitrile (C₂H₃N).

4.1.5

Acetone (C₃H₆O).

4.1.6

anhydrous sodium sulfate (Na₂SO₄). analytical pure; 650 °C burning 4 h, stored in a sealed container for use.

4.2 Solution preparation

4.2.1

Ethyl acetate-n-hexane (3 97, V/V). Take 30 mL of ethyl acetate, add 970 mL of n-hexane and shake well.

4.2.2

Ethyl acetate - n-hexane (5 95, V/V). Take 50 mL of ethyl acetate, add 950 mL of n-hexane and shake well.

4.2.3

Ethyl acetate - cyclohexane (50 50, V/V). Take 500 mL of ethyl acetate, add 500 mL of n-hexane and shake well.

4.3 Standards

4.3.1

Acetochlor standards (acetochlor, C₁₄H₂₀ClNO₂, CAS No..34256-82-1). purity ≥ 98%.

4.4 Standard solution preparation

4.4.1

Acetochlor standard solution. accurately weighed the amount of acetochlor standards, with acetone dubbed the concentration of 100 µg/mL standard stock solution.

The standard stock solution is diluted with n-hexane to the standard working solution at the appropriate concentration. Standard stock solution and standard working fluid are protected from 0 ° C to 0 ° C 4 °C under the conditions of storage. Valid for 6 months.

5 Instruments and equipment

5.1

Gas Chromatograph. Microspot Electronic Capture Detector (μ -ECD).

5.2

Gas Chromatography-Mass Spectrometer. Electronically challenged source (EI).

5.3

Gel Permeation Chromatography.

5.4

Rotary Evaporator.

5.5

Centrifuge. 5 000 r/min.

5.6 High speed homogenizer

5.7 silica gel solid phase extraction column. 6 mL/1 000 mg, or equivalent; before use with 10 mL n-hexane rinse.

5.8 Centrifuge tubes. 100 mL, plastic and glass.

5.9 Filtration. 0.45 μ m, organic phase.

5.10 Analysis of balance. 0.01 g and 0.0001 g.

6.1 Vegetables, edible fungi

6.1.1

Take about 500 g of representative spicy vegetable samples onions and cut them into small pieces of about 4 cm². Into a clean container, sealed and mark the mark. -18 °C below the preservation.

6.1.2

Take representative samples of vegetables (except spicy vegetables such as onions and other spicy vegetables) and pine velvet and other representative edible fungus samples about 500 g, the sample is processed into a slurry. Mix, fit into a clean container, sealed and marked. -18 °C below the preservation.

6.2 Seaweed

Take representative samples of seafood about 500 g, chopped, with a crusher to sample processed into a slurry. Mix well into a clean container Closed mark. -18 °C below the