



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

GB 23200.61-2016

Replacing SN/T 2456-2010

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

食品中苯胺灵残留量的测定 气相色谱-质谱法

(English Translation)

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Foreword

This standard replaces SN/T 2456-2010 "Determination of benzidine residues in food for import and export by gas chromatography-mass spectrometry".

Compared with SN/T 2456-2010, 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 2456-2010.

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

1 Scope

This standard specifies the method for the determination of alanil residues in food by gas chromatography-mass spectrometry.

This standard applies to soybeans, mustard, citrus, peanuts, tea, ginger, mushrooms, eels, pork, chicken liver, rice, soybeans and so on Determination and confirmation of the residues of amphetamines in export foodstuffs, and other foods may be referred to.

2 Normative reference documents

The terms of the following documents are hereby incorporated by reference into this standard. Whichever is the date of the reference file, which is followed by all the amendments (not including corrigenda) or revisions do not apply to this standard, however, encourage the parties to reach an agreement under this standard Whether you can use the latest version of these files. For undated references, the latest edition applies to this standard.

GB 2763 Maximum residue limit for pesticide in food GB/T 6682 Analytical laboratory water specifications and test methods

3 Principle

The residual aniline in the sample was extracted with a mixed solvent of ethyl acetate-n-hexane (1 1, V/V). The plant-derived food was treated with graphite carbon black solid phase Extraction of pellets, animal food or high fat content of food by gel permeation chromatography (GPC) purification, gas chromatography - mass spectrometry Quantity and external standard method.

4 Reagents and materials

Unless otherwise stated, the reagents used are pesticide residues and water is 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

Sodium chloride (NaCl), analytical grade.

4.1.4

Cyclohexane (C₆H₁₂).

4.2 Solution preparation

4.2.1

Ethyl acetate - n-hexane (1 1, V/V) Mixed solvent. 100 mL of ethyl acetate and 100 mL of n-hexane were added and mixed.

4.2.2

saturated sodium chloride solution. sodium chloride water dubbed saturated solution.

4.2.3

Ethyl acetate-cyclohexane (1 1, V/V) Mixed solvent. 100 mL of ethyl acetate and 100 mL of cyclohexane were added and mixed.

4.3 Standards

4.3.1

Pesticide standards. Proparam (CAS. 122-42-9, C₁₀H₁₃NO₂) Standard purity $\geq$ 95%.

4.4 Standard solution preparation

4.4.1

Standard stock solution (100 mg/L). Accurately weigh the standard 10.0 mg, dissolve with n-hexane and set the volume to 100 mL.

The stock solution was placed in a 4 ° C refrigerator.

4.4.2

standard working fluid. according to the need to take appropriate standard stock solution, n-hexane diluted to the appropriate concentration of standard working fluid. Standard work Liquid to now with the use.

4.5 Materials

4.5.1

ENVI-Carb Graphite Carbon Black Solid Phase Extraction Column. 250 mg, 3 mL, or equivalent.

4.5.2

GPC column packing. 20g.200 ~ 400 mesh Bio-beads S-X3.

5 Instruments and equipment

5.1

Gas Chromatograph. with quality detector.

5.2

Gel Permeation Chromatography.

5.3

Crusher.

5.4

Tissue crusher.

5.5

Scroll Mixer.

5.6

Analytical balance. 0.01 g and 0.0001 g.

5.7

screw cap polytetrafluoroethylene plastic centrifuge tube, 50mL.

5.8

Centrifuge. 2500r/min.

5.9

Pipettes. 1 mL to 5 mL, 100 μ L to 1 000 μ L.

6.1.1 Fruits and vegetables

Take representative fruits such as citrus, mustard, soybeans, ginger, peanuts and other fruits and vegetables at least 500 g, (not water washable) Tissue crusher The sample is processed into a slurry, mixed, divided into two as a sample, divided into a clean sample bag, sealed and identified.