



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

GB 23200.33-2016

Replacing SN/T 2149-2008

**Food safety national standard -- Determination of 110 pesticide
residues in solution of solution of chlorpyrifos, picolafil and
dipentrrrole in food -- Gas chromatography-mass spectrometry**

食品中解草嗪、莎稗磷、二丙烯草胺等110种农药残留量的测定 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**

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Foreword

This standard replaces SN/T 2149-2008 "in the import and export of food in the solution of grass oxalic acid, picolaf, dipentrione and other pesticide residues in the detection of 110 Determination of Gas Chromatography-Mass Spectrometry.

Compared with SN/T 2149-2008, 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 2149-2008.

National standards for food safety Determination of 110 Pesticide Residues in Foods, such as Dexamethasone, Saffe, Phenanthroline and Gas chromatography - mass spectrometry

1 Scope

This standard specifies a method for the determination of residual residues in 110 pesticides (see Appendix A) for foodstuffs.

This standard applies to rice, brown rice, barley, wheat, corn in the determination of 110 pesticide 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 samples were washed with water and then extracted with acetone. Then, the samples were extracted by liquid-liquid distribution, gel permeation chromatography and solid phase extraction.

Line purification, with gas chromatography - mass spectrometry, standard curve external standard method quantitative.

4 Reagents and materials

Unless otherwise stated, the reagents used were of analytical grade and the water was in accordance with the primary water specified in GB/T 6682.

4.1 Reagents

4.1.1

Acetone (CH₃COCH₃). Chromatographic pure.

4.1.2

Dichloromethane (CH_2Cl_2).

4.1.3

Cyclohexane (C_6H_{12}).

4.1.4

Ethyl acetate ($\text{CH}_3\text{COOC}_2\text{H}_5$).

4.1.5

Acetonitrile ($\text{C}_2\text{H}_3\text{N}$).

4.1.6

Toluene (C_7H_8).

4.1.7

Sodium chloride (NaCl).

4.1.8

anhydrous sodium sulfate (Na_2SO_4). before use at $650\text{ }^\circ\text{C}$ for 4 hours, stored in a dryer, cooling and standby.

4.2 Solution preparation

4.2.1

Sodium chloride solution (15%, w/v). Weigh 15 g of sodium chloride, dissolve in 100 mL of water and shake well.

4.2.2

Cyclohexane-ethyl acetate (1 + 1, V/V). Take 100 mL of cyclohexane, add 100 mL of ethyl acetate and mix well.

4.2.3

acetonitrile - toluene (3 + 1, V/V). take 300 mL of acetonitrile, add 100 mL of toluene, shake back.

4.3 Standards

4.3.1

Pesticide reference substance. List of reference substances is shown in Appendix A, Standard substance purity $\geq 95\%$.

4.4 Pesticide standard solution

4.4.1

Standard stock solution. accurately weighed the appropriate standard (accurate to 0.1 mg), dissolved in acetone, prepared into a concentration of 500 µg/mL of the standard reserve solution, -18 °C frozen protected from light, valid for 3 months.

4.4.2

Mixed standard intermediate solution. 110 pesticides are divided into five groups, grouping see Appendix A. Remove a certain volume of standard reserves Solution with acetone prepared into 10 mg/L mixed standard solution, 4 °C cold storage, valid for 1 month.

4.4.3

Substrate mixed standard Working solution. Remove a certain volume of mixed standard solution, add to 7.1 to 7.2 after purification the blank sample matrix solution was mixed and fixed to 1.0 mL with acetone. Matrix mixed standard working solution should be used with the current distribution.

4.5 Materials

4.5.1

filter aid. celite 545, or equivalent.

4.5.2

Solid phase extraction column with graphitized non-porous carbon/amidopropylsilylated silylated silica gel. Envi-Carb/LC-NH₂, 500 mg / 500 mg, 6 mL, or equivalent.

5 Instruments and equipment

5.1

Analysis of balance. 0.01 g and 0.0001 g.

5.2

solid phase extraction device.

5.3

sample shredder. with 20 mesh sample sieve.

5.4

Oscillator.

5.5

Filtering device.