



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

GB 23200.69-2016

Replacing SN/T 2795-2011

**Food safety national standard -- Determination of Dinitroaniline
Pesticide Residues in Food by Liquid Chromatography -- Mass
Spectrometry / Mass Spectrometry**

食品中二硝基苯胺类农药残留量的测定 液相色谱-质谱 质谱法

(English Translation)

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Foreword

This standard replaces SN/T 2795-2011 "Determination of Dinitroaniline Pesticide Residues in Import and Export Foods Liquid Chromatography-Mass Spectrometry/Tandem Mass spectrometry".

Compared with SN/T 2795-2011, 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 "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 2795-2011.

National standards for food safety Determination of Dinitroaniline Pesticide Residues in Food Liquid chromatography - mass spectrometry/mass spectrometry

1 Scope

This standard specifies the method for the determination of eight dinitroaniline pesticide residues in food by liquid chromatography-mass spectrometry/mass spectrometry.

This standard applies to soybeans, rice, spinach, ginger, apple, watermelon, cabbage, saucer, tea, eggs, pork and chicken liver fluoride Lentin, Pendimethalin, Ammonolate, Sulfamethoxazole, Ammonolol, Ammonol, Methrone and Isoleveline, etc. Dinitroanilide Pesticide Residues the determination and confirmation of the amount of food; other food can refer to the implementation.

2 Normative reference documents

The documentation is essential for the application of this document. For dated references, only the dated edition applies to this document.

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 acetonitrile, extracted with graphitized carbon black solid phase extraction column and HLB solid phase extraction column. The liquid chromatography-tandem mass spectrometry Fixed and confirmed, external standard method quantitative.

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

Methanol (CH_3OH). Chromatographic Purification.

4.1.2

acetonitrile (CH_3CN). pure chromatography.

4.1.3

n-hexane (C_6H_{14}). chromatographic purity.

4.1.4

Formic acid (CH_2O_2). Chromatographic purity.

4.1.5

Acetone ($\text{C}_3\text{H}_6\text{O}$). excellent grade pure.

4.1.6

Sodium chloride (NaCl). Analytical purity.

4.1.7

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

4.2 Solution preparation

4.2.1

acetonitrile-water solution (1 1, containing 0.05% formic acid). 500 mL of acetonitrile and 0.5 mL of formic acid in 1 L volumetric flask, Set to 1 L, mix well.

4.2.2

n-hexane - acetone solution (2 8). take 20 mL of n-hexane, add 80 mL of acetone, mix.

4.3 Standards

4.3.1

Dinitroaniline Pesticide Reference Material. See Appendix A, Table A.1.

4.4 Standard solution preparation

4.4.1

dinitroaniline pesticide standard stock solution. accurately weighed appropriate amount of dinitroaniline pesticide standard substances, with acetone with A standard stock solution at a concentration of 1000 mg/L was prepared and the standard solution was kept at -18 ° C

for a period of 12 months.

4.4.2

dinitroaniline pesticide mixed intermediate standard solution. absorb the appropriate amount of the standard stock solution, diluted with methanol into the concentration of trifluralin for the 5.0mg/L, the other seven kinds of drug concentration of 1.0 mg/L mixed intermediate standard solution, 0 °C ~ 4 °C dark preservation, shelf life of 3 months.

4.4.3

matrix mixed standard working solution. absorb the appropriate amount of mixed intermediate standard solution, with blank sample extract with fen lering concentration 0µg/L, 50µg/L, 100µg/L, 250µg/L, 500µg/L and 1000µg/L, the other seven pesticide concentrations were 0µg/L, 10.0µg /20.0 µg/L, 50.0 µg/L, 100 µg/L and.200 µg/L, respectively. The day of preparation.

4.5 Materials

4.5.1

Graphitized Carbon Black Solid Phase Extraction Column. 3 mL 250 mg, or equivalent. Activate the column with the first 3 mL n-hexane-acetone solution Moist.

4.5.2

Oasis HLB1, 6mL,.200mg, or equivalent. Activate with 5 mL acetonitrile before use to keep the column moist.

5 Instruments and equipment

5.1

Liquid Chromatography-Mass Spectrometry/Mass Spectrometer. Equipped with an electrospray ion source (ESI).

5.2

Analysis of balance. 0.01 g and 0.0001 g.

5.3

Crusher.

5.4

Tissue crusher.

5.5

Scroll Mixer.