



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

GB 23200.41-2016

Replacing SN/T 0655-2012

**Food safety national standard -- Method for the determination
of thiaden residues in food**

食品中噻节因残留量的检测方法

(English Translation)

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Foreword

This standard replaces SN 0655-2012 "Method for the determination of DDT residues in export food".

Compared with SN 0655-2012, 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 0655-2012.

National standards for food safety Method for the determination of thiaden residues in food

1 Scope

This standard specifies rice, cabbage, citrus, potato, tea, chestnut, chicken, fish, pork, beef, liver, honey, Determination of Naphthol Residues in Eggs and Milk by Gas Chromatography.

This standard applies to rice, cabbage, citrus, potato, tea, chestnut, chicken, fish, pork, beef, liver, honey, Eggs, milk in the determination of the amount of residues in the twins and confirmed, 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 file. 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 methanol-water mixed solvent and extracted with n-hexane and trichloromethane. After the liquid-liquid distribution was carried out, Silica and neutral alumina solid phase extraction column, with a gas chromatograph equipped with an electron capture detector for determination, gas chromatography-mass spectrometer Confirmation, 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

Methanol (CH₄O, 67-56-1). Chromatographic Purification.

4.1.2

n-hexane (C₆H₁₄, 110-54-3). excellent grade pure.

4.1.3

Trichloromethane (CHCl₃, 67-66-3). Chromatographic pure.

4.1.4

Acetone (C₃H₆O, 67-64-1). Chromatographic pure.

4.1.5

Sodium chloride (NaCl, 7647-14-5).

4.1.6

anhydrous sodium sulfate (Na₂SO₄, 7757-82-6). before use at 650 °C for 4 h after burning, stored in a dryer, cooling standby use.

4.2 Solution preparation

4.2.1

Methanol - Aqueous solution (9 1, V/V). Accurately remove 90 mL of methanol and mix with 10 mL of water.

4.2.2

Acetone-Trichloromethane Solution (8 100, V/V). Accurately remove 8 mL of acetone and 100 mL of trichloromethane.

4.2.3 10% sodium chloride solution. accurately weighed 10 g sodium chloride in the beaker by adding the appropriate amount of water dissolved, transferred to 100 mL volumetric flask, set Capacity to scale, shake.

4.3 Standards

4.3.1

Thiaden standard (C₆H₁₀O₄S₂, 55290-64-7). purity ≥99%.

4.4 Standard solution preparation

4.4.1

Standard stock solution. accurately weighed 50 mg of thiophene pesticide standards (accurate to 0.1 mg) in 50 mL brown volumetric flask, with acetone Dissolved and constant volume to the scale, shake, the preparation of the concentration of 1000 μg/mL standard stock solution, 0 °C ~ 4 °C dark preservation.

4.4.2

Standard Intermediate Solution. Accurately draw 1.0 mL of the standard stock solution in a 100 mL brown volumetric flask, dissolve with acetone and set the volume to the scale, the preparation of the concentration of 1 000 µg/mL standard intermediate solution, 0 °C ~ 4 °C dark preservation.

4.4.3

standard working solution. according to the need to remove a certain volume of the standard intermediate solution diluted to the appropriate concentration of standard working solution liquid. Standard working solution is ready for use.

4.5 Materials

4.5.1

Florisil Solid Phase Extraction Column. 500 mg, 3 mL, or equivalent.

4.5.2

Neutral Alumina Solid Phase Extraction Column. 500 mg, 3 mL, or equivalent.

5 Instruments and equipment

5.1

Gas Chromatograph. Equipped with an electron capture detector (ECD).

5.2

Gas Chromatography-Mass Spectrometer. A negative chemical ionization source (NCI).

5.3

Crusher.

5.4

Tissue crusher.

5.5

Solid phase extraction device.

5.6

Centrifuge. 6 000 r/min.

5.7

Scroll Mixer.