

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

**SN/T 1605-2017**

Replacing SN/T 1605-2005

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**Determination of cyanazine, fluometuron, atrazine, propanil and  
linuron residues in products of plant origin for import and  
export. LC-MS/MS method**

进出口植物性产品中氰草津、氟草隆、莠去津、敌稗、利谷隆残留量检验方法 液  
相色谱-质谱/质谱法

**(English Translation)**

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and Quarantine**

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### Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces SN/T 1605-2005 "Import and export of plant products in cyanazine, fluroxypyr, atrazine, enemies, and ligulon residues Test method for high performance liquid chromatography.

The main technical changes in this standard compared with SN/T 1605-2005 are as follows.

- Applicable matrix adds different types of plant products such as spinach, orange and Chinese cabbage;
- Removed the "Sampling and Sample Preparation" section;
- Sample pretreatment from the original neutral alumina filtration and C18 solid phase extraction column purification to composite strong cation exchange solid phase extraction Column enrichment purification;
- Optimized chromatographic and mass spectrometric conditions.

### 1 Scope

This standard specifies the liquid chromatography-mass spectrometry/mass spectrometry for the residues of cyanazine, fluroxypyr, atrazine, diazepam and lycopene in edible plant products.

Detection method.

This standard applies to rice, orange, corn, spinach, Chinese cabbage, soybean cyanazine, fluroxypyr, atrazine, diazepam, ligulon residues Determination and confirmation.

## 2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 6682 Analytical laboratory water specifications and test methods

## 3 Method summary

The residual cyanazine, fluroxypyr, atrazine, dipyridamole, and ligulon in the sample were extracted with acetonitrile, concentrated to dryness under reduced pressure, and reconstituted with formic acid solution.

After purification and enrichment by a composite strong cation exchange column, the extract is sprayed with nitrogen to near dryness and then dissolved in acetonitrile-water. Liquid chromatography-mass spectrometry/mass spectrometry Measure and confirm, the external standard method is quantitative.

## 4 Reagent materials

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

### 4.1

Methanol. Chromatographically pure.

### 4.2

Formic acid. chromatographically pure.

### 4.3

Acetonitrile. Chromatographically pure.

### 4.4

Ammonium acetate. chromatographically pure.

### 4.5

Sodium chloride.

### 4.6

anhydrous sodium sulfate. burned at 650 ° C for 4 h before use, cooled and stored in a desiccator.

4.7 5mmol/L ammonium acetate solution (containing 0.1% formic acid). accurately weigh

0.3854g ammonium acetate (4.4), dissolved in water and transferred to 1000mL. Add 1.00 mL of formic acid to the volumetric flask and bring up to volume with water.

**4.8**

Acetonitrile (containing 0.1% formic acid). Take 1.0 mL of formic acid to make up to 1 L with water.

4.9 2% formic acid solution. Measure 2 mL of formic acid to a volume of 100 mL and mix.

**4.10**

Methanol solution (10 90, volume ratio). Measure 10 mL of methanol and 90 mL of water and mix.

**4.11**

Methanol solution (40 60, volume ratio). Measure 40 mL of methanol and 60 mL of water and mix.

**4.12**

Ammonia-methanol solution (5 95, volume ratio). Measure 5 mL of ammonia water and 95 mL of methanol and mix.