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SN

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

SN/T 1571-2005

**Inspection of deoxynivalenol in cereals for import and export.
Liquid chromatographic method**

进出口粮谷中呕吐毒素检验方法 高效液相色谱法

(English Translation)

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Foreword

Appendix A of this standard is an informative annex.

This standard is proposed and managed by the National Certification and Accreditation Administration.

This standard was drafted. Liaoning Entry-Exit Inspection and Quarantine Bureau of the People's Republic of China, Heilongjiang Entry and Exit Inspection of the People's Republic of China Epidemic situation.

1 Scope

This standard specifies sampling, sample preparation and liquid chromatography detection methods for vomiting toxin testing in import and export grain.

This standard applies to the testing of vomiting toxins in imported and exported wheat and corn.

2 Normative references

The terms in the following documents become the terms of this standard by reference in this standard. Any dated reference document, followed by Some amendments (not including errata content) or revisions do not apply to this standard. Parties using this standard should study the following standards.

The possibility of the latest version.

SN/T 0799-1999 General rules for inspection and inspection of grain, oil and feed for import and export
SN/T 0800.1-1999 Import and export grain and oil, feed inspection sampling and sample preparation methods

3 Sampling and sample preparation

Execute according to SN/T 0800.1. Samples should be protected from contamination or changes in vomit toxin levels during sampling and sample preparation.

4.1 Method summary

The sample is extracted with water or acetonitrile + water, and the extract is purified by DONtest HPLC immunoaffinity column or solid phase extraction (SPE) column.

The liquid chromatography column is separated, the ultraviolet detector is detected at a wavelength of 220 nm, and the external standard method is used for quantification.

4.2 Reagents and materials

4.2.1

Water. Ultrapure water.

4.2.2

Methanol. Chromatographically pure.

4.2.3

Acetonitrile. chromatographically pure.

4.2.4

Acetonitrile + water (84 + 16).

4.2.5

Standard stock solution of vomiting toxin. Weigh 10.0mg of vomiting toxin, dissolve it in methanol and dilute to a 100mL volumetric flask at a concentration of 100 µg/mL (vomiting toxin standard stock solution can be stored for 4 months under -20 ° C freezing conditions).

4.2.6

Standard intermediate stock solution of vomiting toxin. Take 1.0mL of standard stock solution in a 10mL volumetric flask, and make up to volume with mobile phase.

10.0 µg/mL.

4.2.7

Standard working solution for vomiting toxin. Use the above standard intermediate solution and prepare a standard working solution of the applicable concentration as needed. All standards the working fluid should be stored under refrigerated conditions (prepared weekly).

4.2.8

Liquid chromatography mobile phase. methanol + water (20 + 80), 0.45 μm filter membrane filtration.

4.2.9

DONtest HPLC immunoaffinity column.

4.2.10

Solid phase extraction (SPE) column. MycoSepNo. 225.

4.2.11

Polypropylene plastic tube. 15mm (inside diameter) x 85mm, used with solid phase extraction column (MycoSepNo.225).

4.2.12

Microfiber filter paper. 1.5 μm , diameter 11 cm.

4.2.13

Polyethylene glycol 8000.

4.2.14

Centrifuge tube. 10mL.