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

#### 中华人民共和国国家标准

GB/T 23502-2009

# Determination of ochratoxin A in food-High performance liquid chromatographic method with immunoaffinity column clean-up 食品中赭曲霉毒素 A 的测定 免疫亲和层析净化高效液相色谱法

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#### **Foreword**

Annex A of this Standard is informative annex.

This standard was proposed by National Technical Committee (SAC/TC 64) on Food Industry of Standardization Administration of China

This Standard is under the jurisdiction of Food General Detection Subcommittee of National Technical Committee (SAC/TC 64/SC 8)on Food Industry of Standardization Administration of China.

Draft units of this Standard are Qingdao Quality Supervision and Inspection Institute, Shandong Entry Exit Inspection and Quarantine Bureau of P.R. China, Beijing Clover Technology Group Inc and Tsingtao Brewery Company Limited.

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## Determination of ochratoxin A in food-High performance liquid chromatographic method with immunoaffinity column clean-up

#### 1 Scope

This standard specifies the determination of ochratoxin A in food-High performance liquid chromatographic method with immunoaffinity column clean-up.

This standard applies to the determination of ochratoxin A in food and food products, liquor, soy sauce, vinegar, sauce and sauce products.

The detection limit of the method in this standard: The detection limit of food and food products is  $1.0g\mu/kg$ , the detection limit of liquor is  $0.1\mu g/kg$ , and that of soy sauce, vinegar, sauce and sauce products is  $0.5\mu g/kg$ .

#### 2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 6682 Water for analytical laboratory use - Specification and test methods (GB/T 6682-2008, ISO 3696: 1987, MOD)

#### 3 Method summary

Extract ochratoxin A in sample using extracting solution, and determine it using High performance liquid chromatographic detector after cleaning up it using immunoaffinity column, and then quantitate it by external standard method.

#### 4 Reagents and materials

Unless otherwise stated, reagent used is analytically pure and water is grade - I specified in GB/T 6682.

- 4.1 Methanol: Chromatographically pure.
- 4.2 Acetonitrile: Chromatographically pure.
- 4.3 Glacial acetic acid: Chromatographically pure.
- 4.4 Extracting solution 1: Methanol + water (80+20).
- 4.5 Extracting solution 2: Weigh 150g sodium chloride, 20g sodium bicarbonate dissolved in about 950mL water, and add water to dilute to 1L.
- 4.6 Flushing fluid: Weigh 25g sodium chloride, 5g sodium bicarbonate dissolved in about



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