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

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GB/T 23209-2008

Determination of lutein in milk powder—HPLC-UV method

奶粉中叶黄素的测定

液相色谱-紫外检测法

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Foreword

Annex A and Annex B of this Standard are informative annex.

This Standard is under the jurisdiction of General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China.

Chief draft units of this Standard: Qinhuangdao Entry-Exit Inspection and Quarantine Bureau and Shenzhen Entry-Exit Inspection and Quarantine Bureau of P. R. China.

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Determination of lutein in milk powder—HPLC-UV method

1 Scope

The Standard specifies the HPLC method for determining the lutein in milk powder.

The Standard is applicable to the determination of lutein in milk powder.

The method detection limit for this Standard is 0.05 mg/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 6379.1 Accuracy (trueness and precision) of measurement methods and results—Part 1: General principles and definitions (GB/T 6379.1-2004, ISO 5725-1: 1994, IDT)

GB/T 6379.2 Accuracy (trueness and precision) of measurement methods and results—Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method (GB/T 6379.1-2004, ISO 5725-1: 1994, IDT)

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

3 Principle

Extract the lutein in milk powder with acetone, and then determine it through HPLC after concentration, with the quantity fixed by external standard method.

4 Reagent and material

The water shall be level-I type one in line with the specification in GB/T 6682.

4.1 Methyl alcohol: chromatographically pure

4.2 Methyl tertiary butyl ether (MTBE): chromatographically pure

4.3 Methylene chloride: chromatographically pure

4.4 Acetone: guaranteed reagent

4.5 2, 6- butylated hydroxytoluene (BHT): purity >99%.

4.6 Acetone solution with 0.1% BHT: weigh 0.500 g BHT (4.5), to a 500mL volumetric flask, and dissolve it with acetone(4.4) to constant volume..



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