



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

中华人民共和国国家标准

GB 5413.26-2010

**National food safety standard
Determination of taurine in foods for infants and
young children, milk and milk products**

食品安全国家标准

婴幼儿食品和乳品中牛磺酸的测定

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Foreword

The Method II in this standard is identical to Association of Official Agricultural Chemists (AOAC) AOAC 997.05, *Taurine in powdered milk and powdered infant formulae*.

This standard replaces GB/T 5413.26 -1997, *Milk powder and formula foods for infant and young children--Determination of taurine content*.

Comparison to GB/T 5413.26-1997, the main changes specified by this standard are as follows:

- The OPA post - column derivation high performance liquid chromatography in the original standard method is called Method I;
- Add sulfonyl chloride pre - column derivation high performance liquid chromatography as Method II;
- The arrangement of the previous edition of standard modified;
- Quantification of external standard method adopts standard curve method;
- Add liquid chromatogram of reference standard in Annex A.

Annex A of this standard is informative.

This standard replaces the following historical editions issued:

GB/T 5413-1985, GB/T 5413.11-1997

National food safety standard

Determination of taurine in foods for infants and young children, milk and milk products

1. Scope

This standard specifies determination method of taurine in foods for infants and young children, milk and milk products.

This standard applies to determination of taurine in foods for infants and young children, milk and milk products.

2. Normative references

The normative documents referenced in the text are indispensable to the application of this standard. For dated references, only the edition bearing such date applies to this standard. For undated references, the latest edition of the normative document referred to (including all the amendments) applies.

Method I OPA post – column derivation method

3. Principle

The sample is dissolved with metaphosphoric acid solution and separated to generate derivative reaction with o-Phthalic aldehyde (OPA) after extracted via ultrasonic oscillation, centrifugated, and filtered through microporous filtering membrane. Use a fluorescence detector to detect it and quantify it in external standard method.

4. Reagents and materials

Unless otherwise specified, all the reagents used in this method are analytically pure and water is Class I in accordance with GB/T 6682.

- 4.1 Metaphosphoric acid (HPO_3);
- 4.2 Trisodium citrate ($\text{Na}_3\text{C}_6\text{H}_5\text{O}_7 \cdot 2\text{H}_2\text{O}$);
- 4.3 Phenol (carbolic acid) ($\text{C}_6\text{H}_6\text{O}$);
- 4.4 Nitric acid (HNO_3);
- 4.5 Methanol (CH_3OH): Chromatographically pure;
- 4.6 Boric acid (H_3BO_3);

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