

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC

OF CHINA

中华人民共和国国家标准

GB 5413.36-2010

National food safety standard

Determination of trans fatty acids 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反式脂肪酸的测定

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Foreword

Appendix A of this Standard is informative appendix.

This standard is issued for the first time.

National food safety standard Determination of trans fatty acids in foods for infants and young children, milk and milk products

1. Scope

This Standard specifies the method for determination of trans fatty acids in foods for infants and young children, raw milk and dairy products.

This Standard is applicable to the determination of trans fatty acids in foods for infants and young children, raw milk and dairy 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.

3. Principle

The fat in sample is extracted by organic solvents. The extract product reacts with methanol under alkali condition to get fatty acid methyl esters, from which cis and trans fatty acid methyl esters can be separated by gas chromatograph with hydrogen flame ionization detector. The external standard method is used for quantification.

4. Reagents and materials

Unless otherwise specified, purity of all reagents used in this present method is analytically pure, and that of water used in the test is the third-graded specified in GB/T 6682.

- 4.1 Petroleum ether: Boiling range: 30-60 Celsius.
- **4.2** Ethyl ether.
- 4.3 Ethanol: 95% volume fraction.
- **4.4** Normal hexane: Chromatographically pure.
- **4.5** Ammonia: 25-28 %.
- 4.6 Potassium hydroxide.
- 4.7 Methanol.



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