



GB 5009.124-2016

National Food Safety Standard Determination of Amino Acid in Foods

食品安全国家标准 食品中氨基酸的测定

National Health and Family Planning Commission
of the People's Republic of China
China Food and Drug Administration

Release Date: Dec 23, 2016
Implementation Date : Jun 23, 2017

Translated by ChemLinked

Disclaimer

This is an unofficial document provided by **ChemLinked** (chemlinked.com), a platform of REACH24H Consulting Group, as an informational service to assist non-Chinese companies to better understand the Asia Pacific regulatory environment and importation compliance requirements especially China Chemical, Cosmetic, Food and Agrochemical regulatory issues.

This document should only be used as a reference and in case of any discrepancy between the English and Chinese versions the original Chinese version shall prevail.

Nondisclosure:

You may not disclose this document to anyone else without the written permission of ChemLinked.

For further clarification and questions, you can read our [Privacy Policies](#) or contact us at food@chemlinked.com



National Standard of the People's Republic of China

GB 5009.124-2016

In Replacement of GB/T 5009.124-2003

National Food Safety Standard Determination of Amino Acid in Foods

食品安全国家标准

食品中氨基酸的测定

Issued on 2016-12-23

Implemented on 2017-06-23

Issued by

National Health and Family Planning Commission of the People's Republic
of China
China Food and Drug Administration

ChemLinked Team, REACH24H Consulting Group | <http://food.chemlinked.com>

14F, #3 Bldg., Haichuang Technology Center, No. 1288 Wenyi West Road, Hangzhou, China. PC: 311121

Tel: +86 571 8710 3822 | Fax: +86 571 8700 7566 | Email: food@chemlinked.com

Foreword

This standard replaces GB/T 5009.124-2003 *Determination of amino acid in foods*.

Compared with GB/T 5009.124-2003, the major changes of this standard are as follows:

- the name of standard has been revised as “National food safety standard Determination of amino acid in foods”;
- the applicable scope has been enlarged;
- the limit of detection and limit of quantitation for the method have been added;
- the formula for result calculation has been revised.

National food safety standard

Determination of amino acid in foods

1 Scope

This standard specifies the method for the determination of amino acid in foods using amino acid analyzer (ion exchange chromatograph using ninhydrin post-column derivatization).

This standard applies to the determination of acid hydrolyzed amino acid in foods, including 16 kinds of amino acids, aspartic acid, threonine, serine, glutamic acid, proline, glycine, alanine, valine, methionine, isoleucine, leucine, tyrosine, phenylalanine, histidine, lysine and arginine.

2 Principles

Protein in foods is hydrolyzed by hydrochloric acid into free amino acid, which is separated by ion exchange column and then reacts with ninhydrin solution to produce color, and the content of amino acid can be determined through visible spectrophotometric detector.

3 Reagents and Materials

Unless otherwise specified, all reagents used in this method shall refer to analytically pure reagents, and water used shall be Grade 1 water specified in GB/T 6682.

3.1 Reagents

3.1.1 Hydrochloric acid (HCl): with the concentration of not less than 36%, guaranteed reagent.

3.1.2 Phenol (C_6H_5OH).

3.1.3 Nitrogen: with purity of 99.9%.

3.1.4 Sodium citrate ($Na_3C_6H_5O_7 \cdot 2H_2O$): guaranteed reagent.

3.1.5 Sodium hydroxide (NaOH): guaranteed reagent.

3.2 Reagent preparation

3.2.1 Hydrochloric acid solution (6 mol/L): measure 500 mL of hydrochloric acid, add water and dilute it to 1000 mL and mix well.



Free



Free trial



Standard



Corporate



Special

SUBSCRIBE TO CHEMLINKED NOW

REMOVE FOOD REGULATORY BARRIERS EXPEDITE ASIA MARKET ACCESS

- In-time regulatory information and market access requirements
- Supported by local and experienced technically adept technical team
- Strategic partnerships with competent authorities and industrial associations worldwide
- Customized consulting service for complete compliance solutions.

OUR SERVICES



Information

News, Alerts



Knowledge

Pedia-articles,
Regulatory Analysis, Market Insights, Reports



Databases

Regulatory Database,
English Translations, Lists/Inventories, Q&A



Training

Webinars, Online courses, Offline events



Solutions

Translation, Consultancy, Advertising,
Tailored Regulatory Report,
Business-matching services,
Tailored online and offline training