



GB 5009.140-2023

National Food Safety Standard

Determination of Acesulfame Potassium in Food

食品安全国家标准 食品中乙酰磺胺酸钾的测定

National Health Commission of the People's
Republic of China
State Administration for Market Regulation

Release Date: Sept. 6, 2023
Implementation Date: Mar. 6, 2024

Translated by ChemLinked

Disclaimer

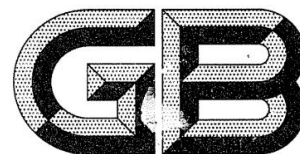
This is an unofficial document provided by **ChemLinked** (chemlinked.com), a platform of REACH24H Consulting Group, as an informational service to assist non-Chinese companies to better understand the Asia Pacific regulatory environment and importation compliance requirements especially China Chemical, 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 5009.140-2023
In Replacement of GB/T 5009.140-2003

National Food Safety Standard Determination of Acesulfame Potassium in Food

食品安全国家标准

食品中乙酰磺胺酸钾的测定

Date of publication: 2023-09-06

Date of implementation: 2024-03-06

Issued by:

National Health Commission of the People's Republic of China
State Administration for Market Regulation

Foreword

This standard replaces GB/T 5009.140-2003 "Determination of acesulfame potassium in beverages".

Compared with GB/T 5009.140-2003, the main changes of this standard are as follows:

- The name of the standard was changed to "National Food Safety Standard Determination of Acesulfame Potassium in Food";
- Expanded the scope of application of the method;
- The sample pretreatment method and instrument reference conditions were modified;
- Increased the detection limit and quantification limit of the method;
- Deleted the relevant content of saccharin sodium determination.

National Food Safety Standard

Determination of Acesulfame Potassium in Food

1 Scope

This standard specifies the determination method for acesulfame potassium in foods.

This standard applies to the determination of acesulfame potassium in milk and dairy products, frozen drinks, fruit products, vegetable products, edible fungi and algae, bean products, nuts and seeds, candies, grain products, baked goods, condiments, beverages, alcoholic beverages and jellies.

2 Principle

The potassium acesulfame in the sample is extracted with water, and according to different sample types, the protein is precipitated with potassium ferrocyanide/zinc acetate solution or purified with a neutral alumina solid phase extraction column. The sample is fixed to volume with water and filtered through a microporous membrane. The sample is separated by liquid chromatography and detected by an ultraviolet detector or a diode array detector. The sample is qualitatively determined by retention time and quantitatively determined by the external standard method.

3 Reagents and materials

Unless otherwise specified, all reagents used in this method were of analytical grade and the water was laboratory Grade-1 water as specified in GB/T6682.

3.1 Reagents

3.1.1 Methanol (CH_3OH): chromatographically pure.

3.1.2 Acetonitrile (CH_3CN): chromatographically pure.

3.1.3 Potassium ferrocyanide [$\text{K}_4\text{Fe}(\text{CN})_6 \cdot 3\text{H}_2\text{O}$].

3.1.4 Zinc acetate [$\text{Zn}(\text{CH}_3\text{COO})_2 \cdot 2\text{H}_2\text{O}$].

3.1.5 Ammonium sulfate [$(\text{NH}_4)_2\text{SO}_4$].



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 & Knowledge

News, Reports, Expert Analysis
Pedia-articles



Databases

Regulatory Database, English Translations
Inventories/Lists



Solutions

Regulatory Compliance Service, On-demand
Translation, Advertisement Service, Tailor-made
Service, E-commerce Solution



Training

Webinars, Online Course
Offline Events