



GB 4789.26-2023

National Food Safety Standard

Food Microbiology Testing Commercial

Sterility Testing

食品安全国家标准 食品微生物学检验
商业无菌检验

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

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 4789.26-2023
In Replacement of GB 4789.26-2013

National Food Safety Standard

Food Microbiology Testing Commercial Sterility Testing

食品安全国家标准

食品微生物学检验 商业无菌检验

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 4789.26-2013 "National Food Safety Standard Food Microbiology Test Commercial Sterility Test".

Compared with GB 4789.26-2013, the main changes of this standard are as follows:

- It added the definitions of commercial sterile and acidified food, etc.;
- It added commercial sterility testing procedures in the food production field;
- The requirement of re-weighing after heat preservation and the method of testing the sealing of cans were deleted;
- The applicable scope of the standard, the definitions of low-acid foods and acidic foods, and the inspection procedures have been modified.

National Food Safety Standard

Food Microbiology Testing Commercial Sterility Testing

1. Scope

This standard specifies the commercial sterility testing procedures, test steps, result determination and reporting requirements for foods.

This standard applies to the testing of commercial sterility of food.

2. Terms and Definitions

2.1 Commercial sterility

The state of food that has been appropriately heat-sterilized and does not contain pathogenic microorganisms, nor does it contain non-pathogenic microorganisms that can reproduce in it at normal temperatures.

2.2 Low-acid foods

Any food with a balanced pH greater than 4.6 and a water activity greater than 0.85 after sterilization.

2.3 Acidic foods

Unacidified food, with a pH balance of the food itself or its soup equal to or less than 4.6 after sterilization and a water activity greater than 0.85. Tomato products with a pH less than 4.7 are acidic foods.

2.4 Acidified foods

Foods that have been acidified by adding acidity regulators or by other acidification methods so that their water activity is greater than 0.85 and their equilibrium pH is equal to or less than 4.6.

3. Equipment and Materials

In addition to routine materials and equipment for sterilization and microorganism cultivation in microbiology laboratories, other equipment is as follows.

3.1 Refrigerator: 2℃~5℃;

3.2 Constant temperature incubator: 30℃±1℃, 36℃±1℃, 55℃±1℃;

3.3 Constant temperature culture room: 30℃±2℃, 36℃±2℃, 55℃±2℃;

3.4 Constant temperature water bath: 55℃±1℃;

3.5 Homogenizer and sterile homogenizing bag, homogenizing cup or mortar;

3.6 Potentiometric pH meter: accuracy is 0.01 pH;

3.7 Microscope objective lens: 10×~100×;

3.8 Can punchers or container openers;

3.9 Anaerobic incubator (tank).

4. Culture Media and Reagents

4.1 Culture medium: See Annex A.

4.2 Crystal violet staining solution: see A.8 in Annex A.

4.3 Gram staining solution: see A.9 in Annex A.

4.4 Sterile saline: See A.10 in Annex A.

4.5 Xylene.

4.6 Ethanol solution containing 4% iodine: 4g iodine is dissolved in 100mL of 70% ethanol solution.

4.7 75% ethanol solution: measure 75mL of anhydrous ethanol and 25mL of water respectively, mix well and set aside.

4.8 70% ethanol solution: measure 70mL of anhydrous ethanol and 30mL of water respectively, mix well and set aside.

5. Commercial Sterility Testing in Food Distribution

5.1 Inspection procedures



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