



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

GB 4806.1-2016

**National food safety standard - General safety requirements on
food contact materials and articles**

食品安全国家标准 食品接触材料及制品通用安全要求

(English Translation)

Issued on: October 19, 2016

Implemented on: October 19, 2017

**Issued by: National Health and Family Planning Commission of the
People's Republic of China**

Table of Contents

1 Scope
2 Terms and definitions
3 Basic requirements
4 Limit requirements
5 Compliance principles
6 Test methods
7 Traceability
8 Product information
Appendix A Spoon and chopsticks marking

Foreword

This document was issued on 19 October 2016 by the National Health and Family Planning Commission of the People's Republic of China and has applied since 19 October 2017.

It is a GB national food safety standard: compliance is mandatory in China for the products within its scope.

1 Scope

This standard specifies the basic requirements, limit requirements, compliance principles, test methods, traceability and product information for food contact materials and articles.

This standard applies to all kinds of food contact materials and articles.

2 Terms and definitions

2.1

Food contact materials and articles

The materials and articles that, under normal conditions of use, have been or are expected to be in contact with food or food additives, or whose ingredients may be transferred into food. They include the packaging materials, vessels, tools and equipment used for food in production, packaging, transport, storage, sale and use, as well as the inks, adhesives and lubricants which may contact food directly or indirectly. Detergents, disinfectants and public water delivery facilities are excluded.

2.2

Composite materials and articles

Food contact materials and articles of two or more layers made from different or identical materials by bonding, hot fusion or other methods. 2.3 Combination materials and articles: two or more layers combined by assembly, welding, inlaying and the like.

2.4

Total migration

The total amount of all non-volatile matter migrating from the material or article into the food simulant in contact with it, expressed in mg per kg of food simulant or in mg per square decimetre of contact area; for materials dedicated to infants it is expressed in mg/kg. 2.5 Overall migration limit (OML): the maximum allowable amount of that total migration.

2.6

Maximum usage

The maximum allowable amount of a substance added in production, expressed as a mass fraction. 2.7 Specific migration: the amount of a given substance migrating into the food or food simulant. 2.8 Specific migration limit (SML): the maximum allowable amount of one or more substances so migrating.

2.9

Specific migration total and 2.10 its limit, SML(T): the total amount of two or more substances migrating, and the maximum allowed for that total. 2.11 Residue and 2.12 maximum residue (QM): the amount, and the maximum allowable amount, of residual substances remaining in the material or article itself.

2.13

Unintentionally added substance

A substance contained in the food contact material or article that was not added on purpose - an impurity of a raw material, a reaction or degradation product of the process.

3 Basic requirements

3.1

Under the recommended conditions of use, the substances migrating into food shall not reach a level hazardous to human health.

3.2

Under the recommended conditions of use, the substances migrating into food shall not cause changes in the composition, structure or colour of the food, nor produce a technical function in it, unless otherwise specially stated.

3.3

The substances used shall be kept to the minimum quantity consistent with the intended effect, and 3.4 shall comply with the corresponding quality specifications.

3.5

The manufacturer shall control the unintentionally added substances so that the amount migrating into food complies with 3.1 and 3.2.

3.6

For a substance that does not directly contact food, is effectively separated from it by a barrier layer and is not listed in the corresponding national food safety standard, the manufacturer shall carry out a safety assessment and keep the migration into food below 0.01 mg/kg. This does not apply to carcinogenic, teratogenic or mutagenic substances or to nanomaterials, which follow the relevant laws and regulations.

3.7

Production shall comply with GB 31603.

4 Limit requirements

4.1

General

The total migration, the amount of substance used, the specific migration, the specific migration total and the residues shall comply with the limits given in the corresponding national food safety standards.

4.2.1

Where the same substance or group is listed both in GB 9685 and in the product standard, the finished article shall comply with the corresponding limits and the limit values shall not be accumulated.

4.2.2

In composite and combination materials and in coated products each material shall comply with its own national food safety standard. Where different materials carry a limit on the same item, the article as a whole shall comply with the weighted sum of those limits; where the weighted sum cannot be calculated, the lowest limit applies.

5 Compliance principles

5.1

The raw materials used shall comply with the national food safety standards and the relevant announcements.

5.2

The additives used shall comply with GB 9685 and the relevant announcements.

5.3

The article shall comply with the national food safety standard for the corresponding product.

6 Test methods

6.1

The migration test shall comply with GB 31604.1 and GB 5009.156; where the product standard sets a special requirement, that requirement governs.

6.2

The determination of the relevant items shall use the national standard test methods; where none exists, other methods that have been sufficiently technically verified may be used.

7 Traceability

7.1

The manufacturer shall operate a product traceability system ensuring that the materials and articles are traceable at all stages.

7.2

The system shall give access to the source and destination information and to the compliance information of the relevant substances and materials.

8 Product information

8.1

The product identification shall be clear and true and shall not mislead the user. 8.2 The product shall carry enough information - labels, instructions, other identification and product certification - to allow a safety assessment to be made.

8.3

The marking shall include the product name, the material, the declaration of conformity with the relevant regulations and standards, the name, address and contact details of the manufacturer or distributor, the date of manufacture and, where applicable, the shelf life.

8.4

The declaration of conformity shall state the laws and regulations followed, the list of substances subject to a limit, and the conformity of the total migration for moulded products.