

ICS 67.020

CCS C 53



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

GB 16565-2003

Replacing GB 16565-1996

Hygienic standard for fried food

油炸小食品卫生标准

Issued on: September 24, 2003

Implemented on: May 1, 2004

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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Foreword

GB 16565-2003 was issued on 24 September 2003 by the Ministry of Health of the People's Republic of China and the Standardization Administration of the People's Republic of China, and has been in force since 1 May 2004. It replaces GB 16565-1996.

The document is a compulsory national standard: the absence of the /T in the designation marks it as mandatory rather than recommended.

1 Scope

China's compulsory hygienic standard for packaged fried snack foods. The hazard it addresses is not the raw material but the oil: frying oil is reused, and each cycle at high temperature breaks it down, raising the free acid and building up peroxides and carbonyl compounds. Those products of oxidation are what turn a cheap snack into a health problem, and they are invisible - the food looks and tastes acceptable long after the oil has degraded. The standard therefore fixes limits on acid value, peroxide value and carbonyl value measured on the fat extracted from the finished product, alongside limits on arsenic and lead, and a microbiological specification covering total plate count, coliforms and the absence of pathogens. It specifies the index requirements, the food additives, the hygienic requirements for the production and processing, the packaging, labelling, storage and transport requirements and the methods of inspection for fried snack foods, and applies to

the various kinds of packaged snack food made by frying, to a defined process and formula, from raw materials such as wheat flour, rice flour, pulses, potatoes, vegetables, fruit and nut kernels. Being a GB without the /T suffix, it is mandatory.

This standard specifies the index requirements, the food additives, the hygienic requirements for the production and processing, the packaging, labelling, storage and transport requirements and the methods of inspection for fried snack foods.

This standard applies to the various kinds of packaged snack food made by frying in oil, according to a defined process and formula, from raw materials such as wheat flour, rice flour, pulses, potatoes, vegetables, fruit and nut kernels.

2 Normative references

The provisions of the following documents become provisions of this standard through reference in it. For dated references, subsequent amendments (excluding corrections) or revisions do not apply to this standard; however, parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions. For undated references, the latest edition applies.

GB 2760 Hygienic standards for uses of food additives.

GB/T 4789.33 Microbiological examination of food hygiene - Examination of grain and of fruit and vegetable foods.

GB/T 5009.11 Determination of total arsenic and abio-arsenic in foods; GB/T 5009.12 Determination of lead in foods.

GB/T 5009.37 Method for analysis of hygienic standard of edible oils; GB/T 5009.56 Method for analysis of hygienic standard of pastry.

GB 14881 General hygienic regulation for food enterprises.

3.1 Raw material requirements

The raw materials shall comply with the corresponding standards and the relevant provisions.

3.2 Sensory requirements

3.2.1 Colour: the product shall have the normal colour characteristic of its variety, with no scorching and no raw appearance.

3.2.2 Odour and taste: normal, with no mouldy smell, no rancidity and no other off-odour.

3.3 Physical and chemical indices

The physical and chemical indices shall comply with Table 1, which sets maximum values

for the acid value and the peroxide value measured on the extracted fat, for the carbonyl value, for total arsenic calculated as As and for lead.

3.4 Microbiological indices

The microbiological indices shall comply with Table 2, which sets a maximum total plate count and a maximum coliform count, and requires that pathogenic bacteria - salmonella, staphylococcus aureus and shigella - shall not be detected.

4 Food additives

4.1 The quality of the food additives shall comply with the corresponding standards and the relevant provisions.

4.2 The varieties of food additive used and the quantities used shall comply with the provisions of GB 2760.

5 Hygienic requirements for the production and processing

The production and processing shall comply with the provisions of GB 14881.

6 Packaging

6.1 The packaging containers and materials shall comply with the corresponding hygienic standards and the relevant provisions.

6.2 Water-impermeable material shall be used for the packaging and the seal shall be tight. Articles unrelated to the food, such as toys or stationery, shall not be put inside the package. If a desiccant is enclosed it shall be non-toxic and harmless, packed in food-grade packaging material and effectively separated from the food.

7 Labelling

The labelling requirements for the packaged product shall comply with the relevant provisions.

8 Storage and transport

8.1 Storage: the product shall be stored in a dry and well-ventilated place. It shall not be stored together with toxic, harmful, odorous, volatile or corrosive articles.

8.2 Transport: exposure to sun and rain shall be avoided during transport. The product shall not be transported together with toxic or harmful articles, with articles having an off-odour, or with anything that would affect the quality of the product.

9 Methods of inspection

9.1 Acid value, peroxide value and carbonyl value: the fat is extracted as specified in GB/T 5009.56 and the analysis carried out by the method specified in GB/T 5009.37.

9.2 Total arsenic: determined by the method specified in GB/T 5009.11.

9.3 Lead: determined by the method specified in GB/T 5009.12.

9.4 Microbiological indices: determined by the method specified in GB/T 4789.33.