Appendix A8: National Standards – Processed Goods

2015 September

Sovereigngroup.com

Table of Content

National Standards Applicable to Processed Goods

Biscuits

GB 7100-2003 Hygienic Standard for Biscuits

National Standards of People's Republic of China

GB 7100-2003

Hygienic Standard for Biscuits

Issued on: 2003-09-24 Implemented on: 2004-05-01

Issued by Ministry of Health of the People's Republic of China & China National Standardization Management Committee

Foreword

The entirety of this national standard is compulsory.

This standard replaces the hygiene standard for biscuits subsumed under GB 7100-1986 Hygienic Standard for Pastry, Biscuit and Bread.

As compared to the earlier relevant version GB 7100-1986, key changes are as follows:

- Formatting of this standard was modified according to the format used in GB/T 1.1-2000;
- Presentation structure of the earlier standard was changed; added sections on food additives, hygiene requirements on the production process, and individual requirements on packaging, labeling, storage and transportation;
- Section on “Moisture” was added, while section on “Aflatoxin B1” was removed;
- Section on “Physical-Chemical Index” was removed**.**

The earlier version, GB 7100-1986 shall be repealed on the day when this standard is implemented.

This standard was proposed by the Ministry of Health of the People’s Republic of China.

This Standard is under the jurisdiction of Institute of Food Safety Control and Inspection, Ministry of Public Health.

This standard was drafted by following units: Beijing Center for Disease Prevention and Control, Institute of Food Safety Control and Inspection of Tianjin, Sanitary and Epidemiological Station of Shandong Province, Sanitary and Epidemiological Station of Chongqing, Sanitary and Epidemiological Station of Dalian.

This standard was mainly drafted by Zhang Zheng, Hu Yuying, Wu Guichun, Wu Jun, Yan Huabin, Liang Jin, and Ding Xiuying.

This standard supersedes all earlier versions, including:

The original GBn 145 that was first issued in 1981 and the subsequent 1986 revised version of GB 7100.

Hygienic Standard for Biscuits

1. Scope

This standard specifies guidelines for products falling under the biscuit category, on food additives, hygiene requirements on the production process, and individual requirements on packaging, labeling, storage and transportation, as well as instructions for sampling and testing.

This standard is applicable to biscuit category products manufactured through the process of ingredients adding, flour mixing, molding and baking, with key ingredients like flour, oil, sugar, etc.

2. Normative References

Relevant provisions in the following five standards will be referenced and enforced as part of this standard.

For any dated references listed in this article, subsequent amendments (excluding errata) or revisions are not applicable to this standard. However, all parties, who previously agreed on the applicability of GB 7100-2003, are encouraged to explore the possibility of using recent editions of the referenced standards listed below.

For undated references, the latest editions will apply.

GB 2760	*Hygienic Standard for Uses of Food Additives*
GB/T 4789.24	*Microbiological Examination of Food Hygiene – Examination of Candy, Cake and Preserved Fruit*
GB/T 5009.3	*Determination of Moisture in Foods*
GB/T 5009.56	*Method for Analysis of Hygienic Standard of Pastry*
GB 8957	*Hygienic Specifications of Pastry Factory*

3. Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Non- Sandwiched Biscuit

Refers to biscuit products that did not undergo secondary processing after the baking process.

3.2 Sandwiched Biscuit

Refers to biscuit products processed with added fillings such as oil, sugar or jam between (or on top of) the biscuits after baking, without going through a second round of heating.

4. Technical Requirements

4.1 Ingredient Requirements

Should comply with relevant standards and regulations. Perishable ingredients, such as unsealed or bulk packaged cream or butter should be stored at low temperature.

4.2 Sensory Requirements

Should possess the color, luster, aroma, taste and texture characteristics that are deemed normal and common to products falling under this category. Products should not produce any odors (e.g. spoilt, moldy odors). Products should not appear moldy, infested or contaminated both on the inside and the outside.

4.3 Physical-Chemical Index: Should comply with requirements listed in Table 1.

Table 1 Physical-Chemical Index

Item		Index
Acidity (per unit fats)(KOH) / (mg/g)	≤	5
Peroxide Value (per unit fats) / (g/100g)	≤	0.25
Total arsenic (per unit As) / (mg/kg)	≤	0.5
Lead (Pb) / (mg/kg)	≤	0.5
Moisture (g/100g)	≤	0.5

4.4 Microorganism Limits: Should comply with requirements listed in Table 2.

Table 2 Microorganism Limits

Item		Index	
		Non-Sandwiched Biscuit	Sandwiched Biscuit
Aerobic Bacterial Count / (cfu/g)	≤	750	2,000
Coliforms / (MPN/100g)	≤	30	
Fungi Count/(cfu/g)	≤	50	
Pathogens Count (Salmonella, Shigella, Staphylococcus aureus)		Zero Tolerance: None should be detected	

5. Food Additives and Nutritional Supplements

5.1 The quality of food additives and nutritional supplements should comply with relevant safety standards and regulations.

5.2 The use of food additives and nutritional supplements should comply with the requirements of national standards GB 2760.

6. Hygiene Requirements on the Production Process

Should comply with the standard GB 8957.

7. Packaging

Choice of container utilized for packaging and corresponding raw materials used in container should comply with relevant hygiene standards and regulations.

8. Labeling

The labels used on fixed packaging should comply with relevant regulations.

9. Storage and Transportation

9.1 Storage

The products should be stored in dry, well-ventilated areas, without the presence of toxic, hazardous, foul-smelling, volatile and/or corrosive substances nearby.

9.2 Transportation

During product transportation, exposure to the direct sunlight and rain should be avoided. Products must be transported separately from toxic, hazardous, foul-smelling substances and/or objects that will have material influence on the quality of the products.

10. Test Method

10.1 Sensory Requirement

Extract a sample of 50g or more, and determine whether the color, smell, taste and texture are normal and acceptable. This test should comply in accordance with requirements stipulated in Clause 4.2; products should not produce any unusual odors, or appear moldy or contaminated.

10.2 Physical-Chemical Indicator

10.2.1 Moisture

Should be tested according to methods suggested in GB/T 5009.3.

10.2.2 Acidity, Peroxide Value, Arsenic, Lead

Should be tested according to methods suggested in GB/T 5009.56.

10.3 Microorganism Index

Should be tested according to methods suggested in GB/T 4789.24.

GBT 20980-2007 Biscuit

National Standards of People's Republic of China

GB/T 20980-2007

National Food Safety Standards

Biscuit

Issued on: 2007-06-12 Implemented on: 2008-05-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China & Standardization Administration Management Committee

Foreword

This standard is formulated on the basis of integrating QB/T 1433.1-2005 Biscuit - Short biscuit, QB/T 1433.2-2005 Biscuit - Semi hard biscuit, QB/T 1433.3-2005 Biscuit - Fermented biscuit, QB/T 1433.4-2005 Biscuit - Compressed biscuit, QB/T 1433.5-2005 Biscuit - Cookie, QB/T 1433.6-2005 Biscuit - Sandwich (or filled) biscuit, QB/T 1433.7-2005 Biscuit - Wafer, QB/T 1433.8-2005 Biscuit - Macaroon, QB/T 1433. 9-2005 Biscuit - Egg and crisp film, QB/T 1433.10- 2005 Biscuit - Decoration biscuit, QB/T 1433.11-2005 Biscuit - Sponge biscuit, QB/T 1253-2005 Biscuit - General technique and QB/T 1254-2005 Biscuit - Testing methods.

This standard will supersede QB/T 1433.1 -1433.11--2005, QB/T 1253-2005 and QB/T 1254-2005.

This standard is proposed by China National Light Industry Associations.

This standard is centralized by the National Food Fermentation Standardization Center.

This standard draft is organized by China Baked Food Sugar Products Industry Association.

This standard is drafted by Chinese Food Fermentation Industry Research Institute, Qingdao Food co., LTD, Guanshengyuan (group) co., LTD,Kaiping Jiashili Food co., LTD,Zhuhai Kadujiuzhou Food co., LTD, Shanghai Danone Biscuits Food co., LTD,Ting Hsin International Group, Guangdong Wan Shifa Cake Industry co., LTD, Kraft Foods (China) co., LTD,Guangzhou Product Quality Supervision and Inspection Agency, Dongguan Xuji Food co., LTD.

This standard's main draftsmen are: Yan Chen, Nianling Zhu, Peiyu Li, Daming Chu, Rongzhi Zhou, Weiwen Zhou, Ming Ye, Kunxiong Yan, Zhenghe Xiong, Mian Cheng, Yuluan Wu, Hao Ma.

This standard is drafted for the first time.

National Food Standards

Biscuit

1. Scope

This standard makes requirements for terms and definition, product classification, technical requirements, test methods, definition rules, label, package, transportation and storage of biscuit.

This Standard applies to all kinds of biscuit products.

2. Normative References

The normative documents referenced in the text are indispensable to the application of this standard. For dated references, only the edition bearing such date applies to this standard. For undated references, the latest edition of the normative document referred to (including all the amendments) applies.

GB/T 601 *Standards for Preparation of Chemical Reagents Standard Titration Solution*

GB 2760 *Food Additives Usage Hygienic Standard*

GB/T 5009.3 *Test of Water in Food*

GB/T 5009.6 *Test of Fat in Food*

GB 7100 *Hygienic Standard of Biscuit*

GB 7718 *Prepackaged Food Label Rules*

GB 10146 Hygienic Standard of Edible Animal Oil

GB/T 10786 *Canned Food Inspection Methods*

GB/T 12456 *Test of the Total Acid in Food (GB/T 12456-1990，neq ISO 750:1981)*

GB 14880 *Hygienic Standard of Food Nutrition Enhancer Usage*

JJF 1070 *Quantitative Packaging Goods Net Content Measurement Inspection Rules*

State Bureau of Quality Technical Supervision [2005] the 75th order *Supervision Management Methods of Quantitative Packaging Goods Net Content Measurement*

3. Terms and Definitions

The following terms and definition apply to this standard.

3.1 Biscuit

Wheat flour (glutinous rice flour, starch can be added in) as main ingredient, added in (or not) sugar, oil and other ingredients, made up after mixing powder (or mixing liquid), molding, roasting (or baking), with loose or crunching taste.

3.2 Short biscuit

Wheat flour, sugar, oil as main ingredient, added in raising agent and other accessories,

made up after mixing powder by cold powder technology, molding, roasting, with the surface strips mostly satin, fracture surface porous organized, taste loose or crunching.

3.3 Semi hard biscuit

Wheat flour, sugar (or no sugar), oil as main ingredient, added in raising agent, modifying agent and other accessories, made up after mixing powder by hot powder technology, molding, roasting, with the surface strips mostly satin, appearance smooth, surface neat, usually have needle holes and levels on fracture surface, and have loose or crunching taste.

3.4 Fermented biscuit

Wheat flour, oil as main ingredient, yeast as raising agent, added in kinds of supplements, made up after mixing powder, fermentation, compressor, lamination, molding, roasting, with loose or crunching taste and fragrant biscuit smell.

3.5 Compressed biscuit

Wheat flour, sugar, oil and milk products as main ingredient, added in raising agent and other supplements, made into biscuit base after mixing powder by cold powder technology, molding, roasting, made up after smashing, added in oil, sugar, nutrition enhancer or other dry fruit, meat floss, milk products, mixing and compressing.

3.6 Cookie

Wheat flour, sugar, sugar syrup, and oil and milk products as main ingredients, added in other supplements, mixing powder by cold powder technology, molding by one method of squeezing or crushing, wire cutting and rolling, roasting to be biscuit with stereo strips or regulated ripples on surface.

3.7 Sandwich (or filled) biscuit

Spread sugar, oil, milk products, chocolate jam, kinds of compound flavored jam or jam in between the biscuits

3.8 Wafer

It’s the biscuit with wheat flour (or sweet rice flour), starch as main ingredient, added in emulgator, raising agent such supplements, made into pieces with holes after mixing powder, molding, roasting, two or more layers biscuit usually added in sugar, oil such filled materials.

3.9 Macaroon

It’s the biscuit with wheat flour, sugar, eggs as main raw materials, added in raising agent, essence such accessories, made up after whipping, mixing powder, compressing and roasting.

3.10 Egg roll

Wheat flour, sugar, eggs as main ingredients, oil added in or not, added in raising agent, modifying agent such accessories, made up after mixing powder, pouring, or hanging pulp, roasting.

3.11 Crisp film

Wheat flour (sweet rice flour or starch can be added in), sugar, eggs as main ingredients, oil added in or not, added in raising agent, modifying agent such accessories, made up after mixing syrup or powder, pouring, or hanging pulp, baking.

3.12 Decoration biscuit

Spread chocolate jam or jam on the surface of the biscuit, or sprinkle seasoning or marshmallow toppings, with coat, strips or pictures on surface.

3.13 Sponge biscuit

Wheat flour, sugar, eggs as main ingredients, added in raising agent, made up after whipping, mixing powder, times rolling, molding, hot water blanching, cold water dipping and roasting, with strong egg smell, loose taste and light quality.

4. Product Classifications and Product Code

Classify 13 types according to processing techniques.

4.1 Short biscuit

4.2 Semi hard biscuit: This consists of three types, ordinary type, brewing type (semi hard biscuit easy to inflate involved in water) and cocoa type (semi hard biscuit added in cocoa powder raw material)

4.3 Fermented biscuit

4.4 Compressed biscuit

4.5 Cookie: There are four types, ordinary type, flower color type (cookie added in coconut shred, nutlet, chocolate grain or different cereals, raisin such sugar preserved fruit), cocoa type (cookie added in cocoa powder raw material) and soft type (cookie added in sugar syrup raw material, with soft taste).

4.6 Sandwich (or filled) biscuit: There are two types, oil type (biscuit with oil type ingredient as filled ingredient) and jam type (biscuit with high water content jam or flavored jam as filled material).

4.7 Wafer: There are two types, ordinary type and cocoa type (wafer added in cocoa powder raw material).

4.8 Macaroon

4.9 Egg roll

4.10 Crisp film

4.11 Decoration biscuit: There are two types, coating type (biscuit with coating, lines, pictures or seasoning sprinkled) and flower stick type (marshmallow toppings on the surface).

4.12 Sponge biscuit

4.13 Other biscuits

5. Technical Requirements

5.1 Requirements for ingredients

Ingredients and supplements used should conform to relevant products standard requirements.

5.2 Sensory requirements

5.2.1 Short biscuit

5.2.1.1 Form

Complete form, clear strip, equal thickness, not concentrated, not variant, no bubbles, no crack, no big or much kick, edible grains are allowed on the surface or middle of the specific species, such as shred, sesame, sugar, chocolate, oats.

5.2.1.2 Color

Brown yellow or golden or corresponding color of the species, basically equal, with slight gloss, no white powder, not too overly burnt or too white

5.2.1.3 Flavor and taste

Corresponding smell, no peculiar smell, loose taste, not adhere to teeth.

5.2.1.4 Organization

Fracture surface organization is porous, fine, no big hole.

5.2.2 Semi hard biscuit

5.2.2.1 Form

Complete form, clear strip, usually have needle holes, equal thickness, not concentrated, not variant, may have equal bubbles, no crack, no big or much kick, edible grains are allowed on the surface or middle of the specific species, such as shred, sesame, sugar, chocolate, oats.

5.2.2.2 Color

Brown yellow or golden or corresponding color of the species, basically equal, with slight gloss, no white powder, not too overly burnt or too white

5.2.2.3 Flavor and taste

Corresponding smell, no peculiar smell, odor-free, does not stick onto the teeth.

5.2.2.4 Organization

Fracture surface organization is with layers or porous.

5.2.2.5 Blunt tonality

10g brewing semi hard biscuit should fully absorb in 50ml of water at 70℃presenting paste like after mixing

by spoon.

5.2.3 Fermented biscuit

5.2.3.1 Form

Complete form, equal thickness, not concentrated, not variant, may have equal bubbles, no crack, no big or much kick, required ingredients are allowed on the surface of the specific species, (such as kernels, sesame, sugar, salt, chocolate, shred, vegetable).

5.2.3.2 Color

Light yellow, cereal golden or corresponding color of the varieties, gray yellow is allowed on biscuit edge and point, basically equal color, with slight gloss, no white powder, not too overly burnt or too white.

5.2.3.3 Flavor and taste

Moderately salty and sweet, have corresponding smell of fermented products and species, no peculiar smell, loose taste, does not stick onto the teeth.

5.2.3.4 Organization

Fracture surface organization is with clear layers or porous.

5.2.4 Compressed biscuit

5.2.4.1 Form

Complete form, no serious broken corner and edge.

5.2.4.2 Color

Cereal golden, deep cereal golden or corresponding color of the species

5.2.4.3 Flavor and taste

Have corresponding smell of species, no peculiar smell, does not stick onto the teeth.

5.2.4.4 Organization

Fine fracture surface, no holes.

5.2.5 Cookie

5.2.5.1 Form

Complete form, clear strips, equal thickness of a same pattern, proper scattered, and no joints. The supplements added should be of basically equal form.

5.2.5.2 Color

The surface is golden, brown yellow or corresponding color of the species, basically equal color, deep color is allowed on the strips and biscuit edge, not too overly burnt or too white, the added supplements color is allowed in flower color cookies.

5.2.5.3 Flavor and taste

Have obvious milk flavor and corresponding smell of specific species, no peculiar smell, loose and mellow taste.

5.2.5.4 Organization

Fine and porous fracture surface, no big holes, should have grains of added supplements.

5.2.6 Sandwich (or filled) biscuit

5.2.6.1 Form

The form is complete, edge is neat, no misplace, no knocked over pieces, conform to biscuit piece requirements, equal thickness, no overflow of the filled layers or materials.

5.2.6.2 Color

Brown yellow or corresponding color of the biscuit piece, basically equal color, the added supplements have its corresponding color, have basically equal color.

5.2.6.3 Flavor and taste

Have corresponding smell of specific species, no peculiar smell, loose and mellow taste, fine filled material, no sugar pellet sense.

5.2.6.4 Organization

Corresponding construction of the species, with clear layers and filled ingredients

5.2.7 Wafer

5.2.7.1 Form

The form is complete, block is neat, and strips are clear, equal thickness, no separation and overflow of the filled layers or ingredients.

5.2.7.2 Color

Have corresponding color of the biscuit piece, basically equal color.

5.2.7.3 Flavor and taste

Have corresponding smell of specific species, no peculiar smell, loose, fragile and mellow taste, fine filled ingredients, and no sugar pellet sense.

5.2.7.4 Organization

The fracture surface is porous, with clear layers and equally mixed filled ingredients.

5.2.8 Macaroon

5.2.8.1 Form

Crown round or many crowns round, the form is complete, size and thickness are basically equal.

5.2.8.2 Color

Golden, brown yellow or corresponding color of the biscuit piece, basically equal color

5.2.8.3 Flavor and taste

Sweet, have fragrant egg smell and corresponding smell of specific species, no peculiar smell, loose, and is crunchy.

5.2.8.4 Organization

The fracture surface is porous, no big holes.

5.2.9 Egg roll

5.2.9.1 Form

The form is multi-layer roll like or specific form of the species, the fracture surface layers are clear, shape is basically complete, the surface is smooth and with strips, edible grains of specific species are allowed on the surface.

5.2.9.2 Color

The surface is light yellow, golden, brown yellow or with corresponding color of the biscuit piece, basically equal color.

5.2.9.3 Flavor and taste

Sweet, have fragrant egg smell and corresponding smell of specific species, no peculiar smell, loose, and is crunchy.

5.2.10 Crisp film

5.2.10.1 Form

The form is basically complete, edible grains of specific species are allowed on the surface.

5.2.10.2 Color

The surface is light yellow, golden, brown yellow or with corresponding color of the biscuit piece, basically equal color.

5.2.10.3 Flavor and taste

Sweet, have corresponding smell of specific species, no peculiar smell, has brittle, crunchy or crisp texture

5.2.11 Decoration biscuit

5.2.11.1 Form

The form is complete; size is basically equally, biscuit base and coats or sticky flower sugar should not be separated. The coat of coating biscuit should be equal, no revealed biscuit base or lines and pictures should be confirmed. The sticky flower biscuit should be neat, with clear sugar flower on the surface and equal size. Seasoning should be equally sprayed on the surface of sprayed seasoning biscuit.

5.2.11.2 Color

Have corresponding color of biscuit base and coat or sugar flowers, the color should be basically equal.

5.2.11.3 Flavor and taste

Have corresponding smell of specific species, no peculiar smell, hard, crunchy or crisp taste, the coating and sugar flower have no fag sense, the coating is smooth.

5.2.11.4 Organization

The fracture surface should have corresponding construction, the organization of coating and sugar flower is equal, no holes.

5.2.12 Sponge biscuit

5.2.12.1 Form

The form is complete; block size is equal, no bubbles, no wrinkles, sticking trace and obvious breakage.

5.2.12.2 Color

The surface is light yellow, golden or with corresponding color of the species, basically equal color, with gloss, not too overly burnt or too white.

5.2.12.3 Flavor and taste

Sweet, have strong fragrant egg smell or corresponding smell of specific species, no peculiar smell, with crunchy, crispy taste.

5.2.12.4 Organization

The fracture surface is fine and equal, no holes.

5.3 Impurity

No visible other matters.

5.4 Net content deviation

Prepackaged products should comply with the requirements of State Bureau of Quality Technical Supervision [2005] the 75th order Supervision Management Methods of Quantitative Packaging Goods Net Content Measurement. Weighing sales products are not included in.

5.5 Physiochemical requirements

5.5.1 Short biscuit

Water content is not more than 4.0%; basicity (sodium carbonate) is not more than 0.4%.

5.5.2 Semi hard biscuit

Usual type water content is not more than 4.0%, basicity (sodium carbonate) is not more than 0.4%; Brewing type water content is not more than 6.0%, basicity (sodium carbonate) is not more than 0.4%; Cocoa type water content is not more than 4.0%, PH value is not more than 8.8.

5.5.3 Fermented biscuit

Water content is not more than 5.0%, acidity (lactic acid) is not more than 0.4%.

5.5.4 Compressed biscuit

Water content is not more than 6.0%, basicity (sodium carbonate) is not more than 0.4%, and bulk density is not less than to 0.9 g /cm3

5.5.5 Cookie

Usual type and flower type water content is not more than 4.0%, basicity (sodium carbonate) is not more than 0.3%, fat content is not down to 16.0%; Cocoa type water content is not more than 4.0%, PH value is not more than 8.8, fat content is not down to 16.0%; Soft type water content is not more than 9.0%, PH value is not more than 8.8, fat content is not less than 16.0%

5.5.6 Sandwich (or filled) biscuit

The physicochemical indexes of oil type biscuit base should comply with the relevant requirements of corresponding species; Jam type biscuit water content is not more than 6.0%,other physicochemical indexes should comply with the relevant requirements of corresponding species.

5.5.7 Wafer

Usual type water content is not more than 3.0%, basicity (sodium carbonate) is not more than 0.3%; Cocoa type water content is not more than 3.0%, PH value is not more than 8.8.

5.5.8 Macaroon

Water content is not more than 4.0%, basicity (sodium carbonate) is not more than 0.3%.

5.5.9 Egg roll

Water content is not more than 4.0%, basicity (sodium carbonate) is not more than 0.3%.

5.5.10 Crisp film

Water content is not more than 5.5%, basicity (sodium carbonate) is not more than 0.3%.

5.5.11 Decoration biscuit

The physicochemical indexes of biscuit base should comply with the requirements of corresponding species.

5.5.12 Sponge biscuit

Water content is not more than 6.5%, basicity (sodium carbonate) is not more than 0.3%.

5.6 Acid value, peroxide value

For oil added in biscuit, acid value and peroxide value should comply with the requirements of GB 7100; for oil not added in biscuit, no requirements for acid value and peroxide value.

5.7 Total arsenic and copper

Should comply with the requirements of GB 7100

5.8 Microorganism

Compressed biscuit, sandwich (or filled) biscuit, wafer and decoration biscuit such second processed biscuits should comply with the filled biscuit requirements of GB 7100, other biscuits should comply with the non-filled biscuit requirements of GB 7100.

5.9 Food additives and food nutrition enhancer

Usage of food additives should comply with the requirements of GB 2760, usage of food nutrition enhancer should comply with the requirements of GB 14880.

6. Inspection methods

6.1 Net content deviation

Test should comply with the requirements of JJF 1070.

6.2 Water content

Test should comply with the requirements of GB/T 5009.3.

6.3 Basicity

6.3.1 Drugs

6.3.1.1 Hydrochloric acid standard solution (0.05 mol /L)

Formulate and demarcate complying with the requirements of GB/T 601.

6.3.1.2 Methyl orange indicator (0.1%)

Weigh and take 0.1g methyl orange in to 70℃ distilled water, cool down and dilute to 100ml.

6.3.2 Instruments

Acid buret: 25ml

6.3.3 Preparation of sample and sampling liquid

Formulate complying with the requirements of GB/T 12456.

6.3.4 Analysis steps

Absorb 50ml sample liquid, place it in 250ml triangular flask, add in two drips of methyl orange, titrate to light red color by hydrochloric acid standard solution (0.05 mol/L), and record the consumed liter of hydrochloric acid solution. Make blank test by distilled water at the same time.

6.3.5 Analysis result presentation

Basicity of biscuit X is expressed by the sodium carbonate gram value in 100g sample, calculate by formula (1).

$$X = \frac{c(V_1 - V_2) * 0.053 * K}{m} * 100 \text{ ---------- (1)}$$

In the formula,

X------basicity, unit is gram per hundred grams (g/100 g);

c------plastic density of hydrochloric acid standard solution, unit is mol per liter(mol/L);

V1------consumed liter of hydrochloric acid standard solution in sample titration, unit is milliliter (ml);

V2------consumed liter of hydrochloric acid standard solution in blank test, unit is milliliter (ml);

K------diluting times;

m-------quality of sample, unit is gram (g).

6.3.6 Allowed deviation

The deviation of the two times independent identified value of the same sample should not exceed 2% of the average value.

6.4 Acidity

Test should comply with the requirements of GB/T 12456.

6.5 PH

6.5.1 Preparation of sample

Take 200g typical sample into the stamp mill, equally mashed, and then take 10g sample, accurate to 0.01g, dilute to 100ml by distilled water, equally mix.

6.5.2 Analysis steps

Test should comply with the requirements of GB/T 10786.

6.6 Fat

Test should comply with the requirements of GB/T 5009.6.

6.7 Bulk density

6.7.1 Calculating methods

This method applies to biscuit which volume can be calculated by mathematical methods.

6.7.1.1 Instruments

a) Vernier caliper: precision 0.02 mm;

b) Balance: measurement range 1g-500g, precision 0.1g;

6.7.1.2 Analysis steps

Take sample of at least 25cm^3 volume, weigh its quality m (g) by balance, separately measure its length, width and height by vernier caliper, calculate its volume V (cm^3) by mathematical methods.

6.7.1.3 Analysis result presentation

Bulk density of biscuit P is expressed by quality of unit volume; calculate by formula (2).

$$P = m/V \quad (2)$$

In the formula,

P------bulk density, unit is gram per cubic centimeter (g/cm3);

m------quality of sample, unit is gram (g);

V------ Volume of sample, unit is cubic centimeter (cm^3).

6.7.1.4 Allowed deviation

The deviation of the two times independent identified value of the same sample should not exceed 2% of the average value.

6.7.2 Volume methods

6.7.2.1 Instruments

a) Balance: measurement range 1g-500g, precision 0.1g;

b) Measuring cylinder: 100ml.

6.7.2.2 Materials

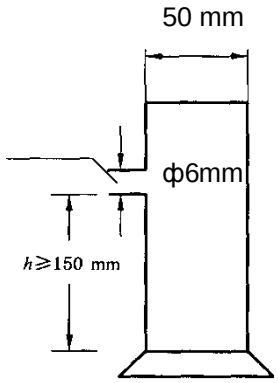
a) Refined soybean salad oil;

b) Usual molding glue liquid.

6.7.2.3 Facility

Overflow glass facility, as picture 1.

The overflow pipe mouth slopes down.



Picture 1 Overflow glass facility

6.7.2.4 Analysis steps

Take sample of at least 20cm^3 volume, weigh its quality m (g) by balance, equally paint the surface by usual molding glue liquid to fix the surface preventing form loosening or slag dripping (coat thickness lower than 0.1mm). Add in salad oil in the overflow glass facility to make the oil surface reach the baseline. Put the sample with glue liquid in the overflow glass facility; collect the oil by 100ml measuring cylinder, read the volume of the overflow oil V (cm3), that's the volume of biscuit sample.

6.7.2.5 Analysis result presentation

Bulk density of biscuit P is expressed by quality of unit volume; calculate by formula (3).

P =m/V---------- (3)

In the formula,

P------bulk density, unit is gram per cubic centimeter (g/cm3);

m------quality of sample, unit is gram (g);

V------ Volume of sample, unit is cubic centimeter (cm3).

6.7.1.4 Allowed deviation

The deviation of the two times independent identified value of the same sample should not exceed 2% of the average value.

6.8 Test of acidity, peroxidation value, total arsenic, lead and microorganism should comply with the requirements of GB 7100.

7. Test rules

7.1 Inspection classification

7.1.1 Ex-factory inspection

Products should be tested disqualified, have inspection by unit of batch. Ex-factory inspection items includes: sensory, net content deviation, water content, total bacteria falls, coliforms group.

7.1.2 Type examination

Type examination of long term produced products should be done half an year, also should be done in any cases below:

a) Trial-manufacture and test of new products;

b) Technique or main raw material much changes, which may influence quality;

c) Resume production after new products or normal production stop production for 3 months;

d) Ex-factory inspection result much differs from the last type examination;

e) Type examination is proposed by the state administration of quality supervision institutions.

7.2 Sampling

7.2.1 Batch

The products produced in the same period with the same species, size should be classified to one batch.

7.2.2 Sampling methods

Randomly take samples from finished products storeroom, paste labels, and indicate product name, size, produced date, batch number, sampling date, and sampling name. Sampling of the products used for microbiology test should conform to sterilization operation rules.

7.2.3 Sampling quantity

Take samples by the percentage of five to ten thousand, sampling quantity should not be lower than 2.5kg, not higher than 5kg.

7.3 Determination rules

7.3.1 If all items are qualified in ex-factory test, then the product should be determined as qualified.

7.3.2When one item in microbiological index is disqualified, and then the product should be determined as disqualified.

7.3.3 Except for microbiological index, other indexes not conforming to the standard rules can double the original batch samples to have re-inspection, if the result is all conformed to the standard rules, the batch should be determined as qualified; if there is still one item disqualified, it should be determined as disqualified.

8. Labels, Package, Transportation, and Storage

8.1 Labels

8.1.1 Prepackaged product label should comply with the requirements of GB 7718; labels of measuring sales products can be free of marking net content.

8.1.2 Indicate species name in line with provision 4.

8.2 Package

8.2.1 Packing materials and containers should be clean, non-poisonous, non-peculiar smell, should comply with the requirements of food hygiene.

8.2.2 Package should be complete, tightly sealed, no breakage. Package can adopt quantitative package and measuring sales package, not limited for selling.

8.3 Transportation

8.3.1 Transportation tools should be clean, dry, comply with the requirements of hygienic standard, with sun and water-proof measures.

8.3.2 Product should not transport with poisonous, harmful, strange smelled things.

8.3.3 Gently take in loading and unloading, prohibit throwing, falling, kicking such harmful operations.

8.4 Storage

8.4.1 Products should be stored in specific food storeroom, storage rooms should be cool, dry, airy, ventilating, and with dust, fly, pest and rats prevention facilities. Away from sunshine, rain; Away from fire

8.4.2 Does not co-store with peculiar smelled, perishable, corrosive and easy breeding pests things.

8.4.3 Products should be placed on base plate, keep the distance to wall over 10cm, a certain distance between each batch, the stacking height is limited to not fall down, not break the package and products.

GB 9678.2-2014 Chocolate, Cocoa Butter Replacer Chocolate and Chocolate Products

National Standards of People's Republic of China

GB 9678.2-2014

National Food Safety Standards

Chocolate, Cocoa Butter Replacer Chocolate and Chocolate Products

Issued on: 2014-12-24 Implemented on: 2015-05-24

Issued by Ministry of Health of the People's Republic of China & China National Standardization Management Committee

Foreword

This standard replaces hygienic standard for chocolate GB 9678.2-2003

As compared to the earlier relevant version GB 9678.2-2003, key changes are as follows:

- Modify the GB name into ‘National Food Safety Standards Chocolate, Butter Cocoa Replacer Chocolate and Chocolate Products’
- Modify scope
- Modify term and definition
- Modify sensory requirements
- Modify physical-chemical index
- Modify microorganism limits
- Modify labeling

The standard cancels copper indicators and came into effect at the date of promulgation.

National Food Safety Standards

Chocolate, Cocoa Butter Replacer Chocolate and Chocolate Products

1. Scope

This standard is applicable to chocolate, cocoa butter replacer chocolate and chocolate products.

2. Terms and definition

2.1 Chocolate

Take the cocoa products (cocoa butter, cocoa liquor or cocoa / chocolate, cocoa cake and cocoa powder) and / or while sugar as the main ingredients, whether add dairy products, food additives or not, and generate solid or semi-solid foods in room temperature after a specific process.

2.2 Chocolate Products

Chocolate mixed with other foods by a certain percentage, and generate solid or semi-solid foods in room temperature after a specific process.

2.3 Cocoa Butter Chocolate Replacer

Take sugar and cocoa butter as ingredients (calculated by the original ingredients, cocoa butter volume over 5%), whether add cocoa products (cocoa butter, cocoa liquor or cocoa / chocolate, cocoa cake and cocoa powder), dairy products and food additives or not, to generate a solid or semi-solid food in room temperature after a specific process, with chocolate flavor and properties.

2.4 Cocoa Butter Chocolate Replacer Products

Cocoa butter chocolate mixed with other foods by a certain percentage, and generates solid or semi-solid foods in room temperature after a specific process.

2.5 Cocoa Butter

Fat from the cocoa bean.

2.6 Cocoa Butter Replacer

Full or partial substitute for cocoa butter from the non-cocoa vegetable fats.

3. Technical Requirements

3.1 Ingredient Requirements

Should comply with relevant standards and regulations.

3.2 Sensory Requirements

Should comply with the requirements listed in Table 1.

Table 1 Sensory Requirements

Item	Index	Test method
Color	Normal color that the products shall have	Take proper amount of samples into a 50mL beaker or white porcelain dish, observed the color and status under natural light. Smell and taste after rinse the month with warm water
Taste and Smell	Normal taste and smell that the products shall have	
Status	Under normal temperature, the products shall be in solid or semi-solid state without normal visual foreign body	

3.3 Pollutant limits

Should comply with the standard GB 2762.

3.4 **Microorganism Limits**

Should comply with the standard GB 29921.

3.5 Food Additives and Nutrition Enhancer

3.5.1 Food additives should comply with the standard GB 2760.

3.5.2 Nutrition enhancer should comply with the standard GB 14880.

4. Others

4.1 Products with over adding 5% cocoa butter replacer (calculated by the origin ingredients) shall be named as cocoa butter chocolate replacer.

4.2 Products content less than 25% chocolate shall not be named as chocolate products.

National Standards of People's Republic of China

GB/T 19343-2003

National Food Safety Standards

Chocolate and Chocolate Products

Issued on: 2003-10-09 Implemented on: 2004-07-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

Foreword

The consistence of this standard and CAC CODEX STAN 87-1981 Chocolate are not equivalent, this standard refers to CODEX STAN 87-1981 the eighth stage draft Suggested draft of chocolate and its products.

The appendix A of this standard is normative appendix.

This standard is jointly proposed by the National Food Industry Standardization Technical Committee and the National Commercial Union.

This standard is responsibly drafted by the National Food Industry Standardization Technical Committee, Shanghai Sugar Tobacco (group) Co., LTD, China Food Industry Association Candy Professional Committee.

This standard is drafted by Shanghai Nutrition Food Quality Supervision and Inspection Stand, Love Finn Food (Beijing) Co., LTD, Shanghai Big Prosperous Children Food Factory Co., LTD, Beijing Concept Food Companies, Dongguan Xu Remember Candy Co., LTD, Shanghai ShenFeng Food Co., LTD, Shanghai Nanyueyizhong Food Co., LTD, Cadbury (China) Food Co., LTD.

The main draftsmen of this standard are: Yu Hao, Guojun Wang, Yanjing Wang, Yuqin Yu, Jiande Li, Bing Zhang, Guoxing Chen, Shuguang Ling, Hao Ma, Degeng Qian, Chunzhu Wu.

National Food Standards

Chocolate and Chocolate Products

1. Scope

This standard makes rules about products classification, technical requirements, test methods and labels of chocolate and chocolate products.

This standard applies to the ruled products in provision 3.1 and 3.2, not apply to products with non-cocoa fat content not over 5%.

2. Normative References

The normative documents referenced in the text are indispensable to the application of this standard. For dated references, only the edition bearing such date applies to this standard. For undated references, the latest edition of the normative document referred to (including all the amendments) applies.

GB 2760 *Hygienic Standards of Using Food Additives*

GB/T 4789.4 *Microbiological examination of Food Hygiene Salmonella Bacterium Test*

GB/T 4789.5 *Microbiological examination of food hygiene: Detection of Shigella*

GB/T 4789.10 *Microbiological examination of food hygiene: Staphylococcus Aureustest*

GB/T 4789.11 *Microbiological examination of food hygienedetection of hemolytic streptococcus*

GB/T 5009. 11 *The test of total arsenic and inorganic arsenic in food*

GB/T 5009. 12 *Test of Plumbum in Food*

GB/T 5009. 13 *Test of Copper in Food*

GB 7718 *General Principles of Pre-packaged Food*

GB 9678.2 *Hygienic Standards of chocolate*

GB 14880 *Hygienic Standards of food nutrition enhancer usage*

GB17403 *Hygienic rules for chocolate factory*

3. Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Chocolate

It is the solid food with cocoa products (cocoa fat, cocoa liquid block or cocoa powder), white sugar and/or sweetening agent as main materials, added or not added in milk products, food additives, made up after specific procedures.

3.2 Chocolate products

It is the solid food made from chocolate referred in 3.1 and other food.

3.3 Cocoa butter

Fats in cocoa bean

3.4 Cocoa solids non-fat

Cocoa dry matter in chocolate excludes cocoa fat.

3.5 Total cocoa solids

Cocoa dry matter in chocolate includes cocoa fat.

3.6 Total milk solids

Dry matter in milk

3.7 Milk fat

Fat in milk

4. Products Classification

4.1 Chocolate

4.1.1 Dark chocolate: Sepia or brown black, chocolate with bitter cocoa.

4.1.2 Milk chocolate: Milk added in, sepia or brown black, chocolate with cocoa and milk flavor.

4.1.3 White chocolate: Chocolate with no non-fat cocoa material added in.

4.2 Chocolate products

4.2.1 Mixed chocolate products: Products mixed with chocolate and other food items, such as hazelnut chocolate, almond chocolate.

4.2.2 Coating chocolate products: Products with chocolate as coat, such as wafer chocolate, preserved fruit chocolate.

4.2.3 Sugar coating chocolate products: Products with sugar as coat, such as chocolate bean.

4.2.4 Other chocolate products: Chocolate products not include in 4.2.1-4.2.3.

5. Technical Requirements

5.1 Food additives: Choose food additives that comply with the requirements of GB 2760.

5.2 Food nutrition enhancer: Choose food nutrition enhancer that complies with the requirements of GB 14880.

5.3 Appearance and sensory: Have corresponding color, smell, flavor, shape of chocolate and its products, no peculiar smell, no visible impurity.

5.4 Dosage of non-cocoa fat: Dosage of non-cocoa plant fat in chocolate should not exceed 5%.

5.5 Basic ingredient of chocolate and chocolate products: Calculate the raw ingredients, basic ingredients of kinds of chocolate and chocolate products comply with the requirements of Chart 1.

Table 1

Items	Chocolate			Chocolate Products
	Dark Chocolate	White Chocolate	Milk Chocolate	
Cocoa fat (dry material)/%≥	18	20	-	18 (black chocolate part), 20 (white chocolate part)
Total solids non-fat(dry material)/%≥	12	-	2.5	12 (black chocolate part), 2.5 (milk chocolate part)
Total cocoa solids(dry material)/%≥	30	-	25	30 (black chocolate part), 25 (milk chocolate part)
Milk fat (dry material)/%≥	-	2.5	2.5	2.5 (white and milk chocolate parts)
Total milk solids (dry material)/%≥	-	14	12	14 (white part), 12 (milk chocolate part)
Fineness/μm≤	35			-
Food Additives	Should comply with the requirements of GB 2760			
Food Nutrition Enhancer	Should comply with the requirements of GB 14880			
Chocolate Percentage in Chocolate Products/%≥	-			25
Note: No requirements for fineness in chocolate part of chocolate products.				

5.6 Hygienic requirements

5.6.1 Production of chocolate and its products should comply with the requirements of GB 17403.

5.6.2 Lead, arsenic, copper and pathogenic bacterium should comply with the requirements of GB 9678. 2.

6. Test methods

6.1 Chocolate fineness: Test complying with appendix A.

6.2 Lead: Test complying with GB/T 5009.12.

6.3 Arsenic: Test complying with GB/T 5009.11.

6.4 Copper: Test complying with GB/T 5009.13.

6.5 Pathogenic bacterium: Test complying with GB/T 4789.4，GB/T 4789.5, GB/T 4789.10 and GB/T 4789.11.

7. Label

7.1 Labels of prepackaged chocolate and its products should comply with the requirements of GB 7718.

7.2 If execute this standard, should indicate codes and order number on the label, indicate chocolate type complying with Provision 4 of this standard.

7.3 Chocolate used sweetening agent to replace the white sugar should indicate in the product name, such as “sodium cyclamate chocolate”.

Appendix A

(Normative appendix)

Test Methods of Chocolate Fineness

A.1 Micrometer Calipers Methods

A.1.1 Instruments and equipment

A.1.1.1 Micrometer with digital presentation

Measure range: (0-25) mm;

Precision: 0.001mm;

A.1.1.2 Stainless Spoon

A.1.1.3 Beaker

50mL.

A.1.2 Drugs

Liquid paraffin

A.1.3 Test Steps

A.1.3.1 Preparation of samples

Take about 20g typical sample, put it in 50ml beaker, heat to 40℃-50℃until fusion, equally mixed, take 5g fusion sample by stainless spoon into 50ml beaker (or plate). Add in 15g liquid paraffin heated to 50℃, equally mixed until no gathered blocks. The prepared sample should be tested in 5 minutes.

A.1.3.2 Zero setting of micrometer calipers

Rotate the pipe of micrometer calipers to make the measurement plane distance about 10mm, carefully clean the plane by wadding and soft cloth. Open the caliper switch, choose measurement range. Slowly rotate the wheel to make the plane near. When the two planes touch, the wheel slide (with a slight sliding sound), then stop rotating wheel. Push the “zero set” button, viewing screen reveals “00.000 mm”. Open the micrometer calipers, repeat the operation 2-3 times, each time revealing “00.000 mm”. If re-open micrometer caliper or change measurement range, should again set zero.

A.1.3.3 Inspection

Take one drip of sample (A.1.3.1) on any plane of the micrometer caliper, keep the vertical position, rotate the wheel (not rotate the pipe), make the plane near. When the two planes touch, keep rotating, let the wheel slide 3-4 times (with 3-4 slight sliding sounds), then stop rotating wheel, read the number on the screen.

A.1.3. 4 Test Result Presentation

Consistently test the same sample 3 times, the consecutive test results deviation should not exceed 2μm, the deviation of highest and lowest value should not exceed 4μm, take the average value as test result.

A.2 Scraper Blade Methods

A.2.1 Instruments

Scraper fineness test

A.2.2 Inspection

Preheat the scraper and baseboard to 32℃±1℃, take a small amount of equally mixed sample, and drip into the deepest place of the baseboard chute. The dripped amount should fill in the chute and slightly more. Place the scraper on the baseboard by thumb, forefinger and middle finger of two hands. Make the scraper eased arris touch the baseboard. Pull from the deep to swallow place of the chute, observe the grains equally distributed volume value in 5 seconds. Test the same sample 5 times, take the average value.

Pastry

GBT 30645-2014 Pastries Classification

National Standards of People's Republic of China

GB/T 30645-2014

National Food Safety Standards

Pastries Classification

Issued on: 2014-12-31 Implemented on: 2015-04-30

Issued by Ministry of Health of the People's Republic of China & China National Standardization Management Committee

National Food Safety Standards

Pastries Classification

1. Scope

This standard specifies the classification of pastry.

This standard is applicable to the production of pastry, its purchase and sales, scientific research, teaching and other relevant fields.

2. Product classifications

2.1 Classified by production processes

2.1.1 Hot processing pastry

Pastry that goes through the final cooking technologies such as baking, frying, steaming, boiling and stir-frying.

2.1.1.1 Baked and roasted pastry

Pastry with baking and roasting as its final cooking technologies (See examples at Table B.1, Appendix B)

2.1.1.1.1 Pastries

Layerless and crispy pastry shaped and baked with malleable paste made of much edible fat, oil, sugar and other ingredients.

2.1.1.1.2 Soft pastries

Pastry shaped and baked with flexible and malleable paste made of a little edible fat and oil, much sugar, as well as eggs, dairy and swelling agents.

2.1.1.1.3 Soft crisps

Crispy pastry shaped and baked with syrup pasted made of a little edible fat and oil, much sugar or syrup.

2.1.1.1.4 Crispy-layered

Layered pastry that is repeatedly pressed, folded, shaped, and baked with water-oil paste containing oil-mixed dough or edible fat and oil.

2.1.1.1.5 Crispy-skinned

Layered pastry that is stuffed, shaped, and baked with water-oil paste containing oil-mixed dough or edible fat and oil as the crispy skin.

2.1.1.1.6 Soft crispy-skinned

Soft, crispy pastry that is skinned, stuffed, shaped and baked with flexible and malleable paste made of a little edible fat and oil, much sugar, as well as eggs, dairy and swelling agents.

2.1.1.1.7 Syrup-skinned

Soft or crispy pastry that is stuffed, shaped and baked with syrup paste as its skin.

2.1.1.1.8 Hard-skinned

Hard-skinned pastry that is stuffed, shaped and baked with a little sugar and maltose, much edible fat and oil, and other ingredients.

2.1.1.1.9 Water-oil skinned

Pastry that is stuffed, shaped, and baked with water-oil paste as the skin.

2.1.1.1.10 Fermented

Soft or crispy pastry shaped or stuffing-shaped with fermented paste.

2.1.1.1.11 Baked cakes

Soft-textured cakes made of grain flour, eggs and sugar after going through egg-whisking, die-filling or stuffing and baking.

2.1.1.1.12 Roasted cakes

Soft or crispy pastry made of grain flour after going through breading, die-filling, cake braising, shaping and roasting.

2.1.1.1.13 Scalded

Pastry with wheat meal that is scalded with boiling water or milk, edible fat and oil, and mixed with eggs after going through batter squeezing, baking, filling and other technologies.

2.1.1.1.14 Others

Baked and roasted pastry apart from the above.

2.1.1.2 Fried pastry

Pastry with frying as the final cooking technology.

2.1.1.2.1 Crispy-skinned

Fried, layered pastry after stuffing and shaping with its crispy skin formulated with water-oil paste containing oil-mixed dough or edible fat and oil.

2.1.1.2.2 Water-oil skinned

Pastry that is stuffed, shaped and fried with water-oil paste as the skin.

2.1.1.2.3 Soft crispy-skinned

Pastry that is shaped and fried with flexible, malleable paste which is formulated with a little edible oil and fat, much sugar, as well as eggs, dairy and swelling agents.

2.1.1.2.4 Crispy-layered

Fried layered pastry that is repeatedly pressed, folded, shaped with water-oil paste containing oil-mixed dough or edible fat and oil.

2.1.1.2.5 Water control

Crispy pastry that is shaped and fried with tough paste made of wheat meal and water.

2.1.1.2.6 Fermented

Fried soft or crispy pastry with fermented paste after shaping or stuffing-shaping.

2.1.1.2.7 Others

Fried pastry apart from the above.

2.1.1.3 Steamed and boiled pastry

Pastry with steaming or boiling as the final cooking technologies (see examples at Table B.2, Appendix B).

2.1.1.3.1 Steamed cakes

Soft-textured cakes made of eggs and wheat meal after going through egg-whisking, batter-mixing and steaming.

2.1.1.3.2 Die- filling cakes

Cakes made of raw or cooked materials after going through blending, die-filling, shaping and steaming.

2.1.1.3.3 Tough cakes

Flexible cakes made of glutinous rice flour and sugar after going through steaming and shaping.

2.1.1.3.4 Steamed sponge cake

Hive-shaped soft cakes made of wheat meal or rice flour after going through fermenting, steaming and shaping.

2.1.1.3.5 Sponge cakes

Soft cakes made of polished round-grained rice flour or glutinous rice flour paste which goes through stuffing

(or no stuffing), shaping and steaming.

2.1.1.3.6 Zongzi (glutinous rice dumplings)

Leaf-wrapped dumplings made of glutinous rice or other cereal with or without stuffing after being steamed or boiled.

2.1.1.3.7 Water-oil-skinned

Pastry with a water-oil paste skin after going through stuffing, shaping and cooking.

2.1.1.3.8 Sliced cakes

Soft sliced cakes made of rice flour after going through breading, die-filling, steaming or braising.

2.1.1.3.9 Others

Steamed and boiled pastry apart from the above.

2.1.1.4 Stir-fried pastry

Pastry with stir-frying as the final cooking technology.

2.1.1.5 Others

Pastry after going through hot processing ways as the final cooking technologies apart from baking, roasting, frying, steaming, boiling and stir-frying.

2.1.2 Cold processing pastry

Pastry which requires to be reprocessed at the normal or cold temperature after going through various heated cooking technologies (see examples at Table B.4, Appendix B).

2.1.2.1 Cooked-floured pastry

Pastry with cooked rice flour, bean flour or wheat meal which is mixed with other raw materials.

2.1.2.1.1 Hot control soft cakes

Pastry shaped from tough soft paste made of cake flour, sugar and boiling water.

2.1.2.1.2 Cold control tough pastry

Pastry shaped from soft tough paste made of flour, syrup and other ingredients.

2.1.2.1.3 Cold control sponge cakes

Pastry shaped from soft sponge paste made of flour, syrup and other ingredients.

2.1.2.1.4 Die-filling cakes

Soft or crispy cakes made of cooked rice flour after going through blending, die-filling and shaping.

2.1.2.1.5 Squeezed pastry

Sweet, salty, tough or spicy pastry with wheat meal and/or bean flour as the main ingredients and edible vegetable oil, edible salt, white granulated sugar, peppers or chopped peppers as the auxiliary ingredients.

2.1.2.1.6 Others

Cooked-floured pastry apart from the above mentioned products. Other cooked-floured pastry with precooked, formulated and shaped rice flour, bean flour or wheat meal.

2.1.2.2 Western-style decorative cakes

Cakes made of grain flour, eggs and sugar after going through egg-whisking, die-filling, shaping and baking, and then being added with cream, egg white, cocoa and jam on the cake surface or insides.

2.1.2.3 Syrup pastry

Soft or crispy pastry made of grain flour which is mixed with water and eggs and then fried before being blended (poring, dipping or spraying) with syrup.

2.1.2.4 Pastry with filling

Pastry with filling between the two layers of cooked pastry products after going through the filling process.

2.1.2.5 Rice cakes

Pastry made of grain flour including glutinous rice flour and polished round-grained rice flour shaped after going through stuffing (or no stuffing) and cooking processes.

2.1.2.5.1 Raw-ingredient

Pastry made of grain flour such as glutinous rice flour which is shaped after going through rolling or packing.

2.1.2.6 Others

Other cold processed pastry apart from cooked floured pastry, western-style decorative cakes and syrup pastry.

2.2 Classified by product region features

See Appendix A

Appendix A

(Normative Appendix)

Pastry Classified by Product Region Features

A.1 Chinese-style pastry

Pastry with traditional Chinese flavors and features

A.1.1 Peking-style pastry

Pastry characterized by Peking style, as well as more oil, less sugar, a crispy and soft texture with pure sweet or saline taste. For example, Jingbajian, Zilaihong, Zilaibai, Tijiangbing, etc.

A.1.2 Suzhou-style pastry

Pastry characterized by Suzhou style with stuffing of nuts and lard. This pastry type, crispy, puffy and mild sweet, is usually sweetened with osmanthus or roses. For example, Suzhou-style moon cakes, Suzhou sesame seed cakes, Lard New Year Cakes, etc.

A.1.3 Guangzhou-style pastry

Pastry characterized by Guangzhou style with aesthetic shapes. This pastry type, with more sugar but less oil, usually has olives, coconut shred, lotus paste, yolk and sugar-cured lard as the stuffing. It has a thin skin and more stuffing. Its rice cake range is always crispy and mild sweet and its pastries are layered and crispy. For example, Guangzhou-style moon cakes, fried rice biscuits, Bailing crispy biscuits, New Year Cakes, etc.

A.1.4 Yangzhou-style pastry

Pastry characterized by Yangzhou and Zhenjiang style. This pastry type, characterized by stuffing of black sesame seeds, preserved fruits and sesame oil, has a typical sesame flavor. For example, Huaiyang Bajian, Black Sesame Spiced Salt Moon cakes, etc.

A.1.5 Fujian-style pastry

Pastry characterized by Fuzhou style with stuffing of dried shrimps, nori, longan, mushroom and sugar-preserved meat dice. This pastry type is usually sweet, crispy, oily and smooth with a featured seafood flavor. For example, Fujian Libing Cakes, Lard Cakes, etc.

A.1.6 Chaoshan-style pastry

Pastry characterized by Chaoshan style with stuffing of red bean paste, sugar wax gourds and sugar lard. This pastry type is highlighted by features such as scallion fragrance. For example, Laobing Cakes, Laopobing Cakes, Crystal-skinned Moon cakes, Spring Cakes, etc.

A.1.7 Ningshao-style pastry

Pastry characterized by Ningbo and Shaoxing style. This pastry type, usually having dried sea grass and vegetable oil as its auxiliary materials, is highlighted by features such as algae fragrance. For example, Algae Fragrant Moon Cakes, Shaoxing Fragrant Cake, etc.

A.1.8 Sichuan-style pastry

Pastry characterized by Chengdu and Chongqing style. This pastry type is based on glutinous rice with peanuts, sesame seeds, walnuts, preserved fruits and pork lard as its stuffing. This pastry type has features such as more sugar, more oil and a soft, smooth and crispy texture. For example, Tangmabing, Sliced Peach, Rice Flower Sugar, etc.

A.1.9 Gaoqiao-style pastry

Pastry characterized by Gaoqiao (a town in Shanghai) style. This pastry type is based on rice products with red beans and roses as its stuffing. This pastry type, fat but not greasy, sweet, smooth and soft, has features such as less sugar, less oil and a mild fragrant crispy texture. For example, Sponge Biscuits, Sponge Cakes, Crisp Fritters, Yiniesu, etc.

A.1.10 Yunnan-style pastry

Pastry characterized by Kunming style. This pastry type, fat but not greasy, sweet and smooth, is usually made of wheat meal, buckwheat, Xuanwei Ham, edible flowers, Jizong mushrooms and nuts, and has features such as more oil and sugar. For example, Ham and Murshroom Cakes, Flower Cakes, Han Nut Cakes, etc.

A.1.11 Qin-style pastry

Pastry characterized by Xi’an style. This pastry type, crispy, mild fragrant, sticky and tasty, is usually made of wheat meal, glutinous rice, red dates and sugar lard, and has features such as rich date fragrance. For example, Crystal Cakes, Shaanxi Zhengao, etc.

A.1.12 Shanxi-style pastry

Pastry characterized by Shanxi style, which has wheat meal, oat meal, bitter buckwheat flour, flaxseed and soft sugar as its main materials and roses, osmanthus, melon seeds and sesame seeds as its auxiliary materials. This pastry type is made after going through a skin-making process by stirring, stuffing, shaping, swabbing, baking, air-curing and packing. For example, Taigubing, Double Sugar and Oil Delicacy, Mengfengbing Cakes, Boiled Cakes, Egg Moon Cakes, Guodulin Moon Cakes, etc.

A.1.13 Harbin-style pastry

Pastry characterized by Harbin style, mainly including Harbin-style Moon Cakes, Chuansu Moon Cakes, Mankousu, Changbai Cakes, etc.

A.1.14 Henan-style pastry

This pastry type, characterized by Middle China style, combines the southern pastry with the northern one. It has salty, sweet and compound tastes, and mainly includes pastries, water control pastries and fermented pastries. For example, Zhecheng Chicken Feet Fried Dough Twists, Anyang Liaohua, etc.

A.1.15 Shandong-style pastry

This pastry type originates from Shandong and its Yantai region. It includes many oily pastries such as Youxuan and Sweet Crispy Pancakes.

A.1.16 Anhui-style pastry

Pastry characterized by highlighted Hefei style. For example, Mozisu, Hefei Sesame Seed Cakes, etc.

A.1.17 Hebei-style pastry

Pastry characterized by Baoding, Tangshan and Chengde style. For example, Pork Baked Cake, Blood Curd Dumplings, etc.

A.1.18 Hunan-style pastry

Pastry characterized by Changsha, Hengyang and Shaoyang style. For example, Changsha Milk Cakes, Liuyang-style Huibing Cakes, Hengyang Crispy, and Thin Moon Cakes.

A.1.19 Taiwan-style pastry

Pastry characterized by Taiwan style. For example, Pineapple Pastries, Round-shaped Mung Bean Cakes, etc.

A.2 Western-style pastry

Pastry characterized by western style, including German-style pastry, French-style pastry, Russian-style pastry, American-style pastry, etc. Representative products include flower-framed cakes, western-style non-fat cakes, western-style fat cakes, cheese cakes, mousse cakes, puff pastries, short butter pastries, egg tarts, western-style pastries, egg white pastries, puffs, etc.

A.2.1 Mild pastries

Clearly-layered crispy pastry based on the new paste after going through repeated rolling and freezing with cold-water paste and crisp paste or edible oil as exteriors and interiors. This pastry type is clearly-layered, soft, puffy and a little crispy. The paste can be stuffed to be made various sweet or salty pastry. For example, Fresh Meat Crispy Rolls, Cream Tri-crisps, Crispy Cream Croissants, etc.

A.2.2 Mixed pastries

Layerless crispy pastry based on paste made of wheat meal, eggs, edible fat and other ingredients after going through rolling, shaping, cooking and decorating. This pastry type, usually soft and crispy, can be stuffed to be made sweet or salty pies, tarts, bars and other pastries. It can also be made into small tea pastries. For example, Tri-color Crips, Fruit Tarts, Bean Paste Bars, etc.

A.2.3 Cakes

Soft cakes with eggs, sugar, wheat meal and edible fat as the main ingredients and fruits, cheese, chocolate and nuts as the auxiliary ingredients after going through whisking, shaping and cooking. The type is usually soft and spongy with even pores. For example, non-fat cakes, cream cakes, artistic cakes and flavored cakes.

A.2.4 Puffs

Products made by scalding the wheat meal with boiled edible fat, water (or milk) before adding in eggs to make the paste, which is finally shaped and baked (or fried). Puffs are usually externally crispy and internally soft with a hollow body and thin crust. Their surfaces bear slight chaps and their tastes are determined by the stuffing. Now, they are usually called “puffs” or “Aikelai”. For example, Chocolate Milk Aikelai, Milk Puffs, etc.

A.2.5 Decorative pastry

A creative product which is made of edible raw ingredients and perfectly combines the edible value with appreciation value by using the technical methods and artistic patterns or decorations via conception and originality. For example, Celebration Cakes.

A.3 Others

Pastry apart from the above mentioned products.

Appendix B

(Normative Appendix)

Pastry examples

See the pastry examples at Table B.1 to B.4.

Table B.1 Baked and Roasted Pastry Examples

Code	Types	Examples
2.1.1.1.1	Pastries	Peking-style Walnut Sweet Cakes, Sesame Seed Cakes, Suzhou-style Almond Crisps, Chao-style Almond Crisps, Yunnan-style Coin Crisps, Shanxi-style Walnut Cakes and cookies, apple bars and fresh fruit tarts in western pastries
2.1.1.1.2	Soft pastries	Peking-style Ice Flower Crisps, Suzhou-style Banana Crisps, Guangzhou-style Deqing Crips, Yunnan-style Ice Cakes, Shanxi-style Yikousu, Osmanthus Crips, Red Bean Pastries, Lotus Leaf Crisps and scones, muffins and rock candy biscuits
2.1.1.1.3	Soft crisps	Guangzhou-style Crisp Fritters, Yunnan-style Lekousu, Suzhou-style Coin Crisps
2.1.1.1.4	Crispy-layered	Guangzhou-style Layered Crisps, Yunnan-style Lekousu, Suzhou-style Coin Crisps
2.1.1.1.5	Crispy-skinned	Jingbajian, Subajian, Guangzhou-style Lotus Paste Crisps, Yunnan-style Crispy Flower Biscuits, Dianbajian, Suzhou-style Moon Cakes, Taishibing Cakes, Chao-style Puffs, Fragrant Sesame Seed Crisps, Jinbajian and curry dumplings and crispy egg tarts in western pastries
2.1.1.1.6	Soft crispy-skinned	Peking-style Zhuangyuanbing Cakes, Suzhou-style Lard Pine Nut Crisps, Guangzhou-style Lotus Paste Honeydew Crisps, Chao-style Baodou Crisps and Yunnan-style Lotus Crisps
2.1.1.1.7	Syrup-skinned	Peking-style Purifying Syrup Moon Cakes, Suzhou-style Pine Nut Jujube Paste (Sesame Seed) Biscuits, Guangzhou-style Chicken Biscuits, Chao-style Yuemei Biscuits
2.1.1.1.8	Hard-skinned	Peiking-style Zilaihong, Zilaibai Moon Cakes, Yunnan Crusty Flower Biscuits
2.1.1.1.9	Water-oil skinned	Fujian-style Libing Cakes, Spring Cakes, Yunnan-style Egg White Cakes, Qiaobing Cakes
2.1.1.1.10	Fermented	Peiking-style Qiepianganglu, Suzhou-style Jiuniangbing Cakes, Guangzhou-style Xiqiao Cakes, Yunnan-style Huibing Cakes
2.1.1.1.11	Baked cakes	Suzhou-style Osmanthus Square Cakes, Guangzhou-style Lotus Cakes, Yunnan-style Heavy Oil Cakes, Shanxi-style Grass Seed Cakes, Yunmi Cakes, Shanxi-style Egg Cakes and non-fat cakes, oil cakes and baked cheese cakes in western pastries
2.1.1.1.12	Roasted cakes	Suzhou-style Spiced Sesame Seed Cakes, Guangzhou-style Yam Milk Cakes, Shaoxing Flavored Cakes
2.1.1.1.13	Scalded	Puffs in western pastries
2.1.1.1.14	Others	Crispy cakes and baked puddings in western pastries

Table B.2 Fried Pastry Examples

Code	Types	Examples
2.1.1.2.1	Crispy-skinned	Peking-style Suhezi, Suzhou-style Laced Dumplings, Guangzhou-style Lotus Paste Crispy Dumplings and Chao-style Fubing Cakes
2.1.1.2.2	Water-oil skinned	Peking-style Grade I Sesame Seed Cakes, Yunnan-style Fried Dough Twists with Stuffing, Suzhou-style Qiaosu
2.1.1.2.3	Soft crispy-skinned	Peking-style Kaikouxiao, Suzhou-style Fried Snacks, Guangzhou-style Zhaduole, Chao-style Crispy Dumplings, Yunnan-style Qiaosu, American-style doughnuts in western pastry
2.1.1.2.4	Crispy-layered	Peking-style Horseshoe Crisps, Chao-style Laofangsu
2.1.1.2.5	Water control	Peiking-style Fried Dapaicha, Chao-style Egg Crisps, Yunnan-style Fried Dough Twists
2.1.1.2.6	Fermented	Yunnan-style Soft-skinned Cakes, doughnuts with bean paste in western pastry
2.1.1.2.7	Others	Fried puffs in western pastry

Table B.3 Steamed and Boiled Pastry Examples

Code	Types	Examples
2.1.1.3.1	Steamed cakes	Peiking-style Fruits Cakes, Suzhou-style Cakes with Filling, Guangzhou-style Steamed Lotus Paste Cakes and steamed puddings in western pastry
2.1.1.3.2	Die-filling cakes	Suzhou-style Mung Bean Cakes, Fujian Fulugao Cakes
2.1.1.3.3	Tough cakes	Peking-style Fruits New Year Cakes, Suzhou-style Lard New Year Cakes, Guangzhou-style Horseshoe Cakes and Yunnan-style New Year Cakes
2.1.1.3.4	Steamed sponge cake	Peking-style Baifeng Cakes, Suzhou-style Fenggao Cakes, Guangzhou-style Lundun Cakes
2.1.1.3.5	Sponge cakes	Suzhou-style Pine Nut Huangqian Cakes, Gaoqiao-style Fruits Sponge Cakes, Dingsheng Cakes
2.1.1.3.6	Zongzi (glutinous rice dumplings)	Meat Zongzi (traditional Chinese rice-puddings), Taishi Cakes
2.1.1.3.7	Water-oil-skinned	Shanxi Sweet and Salty Pastry, Taishi Cakes
2.1.1.3.8	Sliced cakes	Suzhou-style Osmanthus Sliced Cakes

Table B.4 Cold processing pastry examples

Code	Types	Examples
2.1.2.1	Cooked-floured pastry	Walnut Sliced Cakes, Lotus Paste Crystal Cakes, Fried Flour
2.1.2.1.1	Hot control soft cakes	Suzhou-style Orange Cake, Qingtuan
2.1.2.1.2	Cold control tough pastry	Fujian-style Shizhen Orange Cake, Mashu
2.1.2.1.3	Cold control sponge cakes	Suzhou-style Pine Nut Ice Crisps, Qingmin Crisps
2.1.2.1.4	Die-filling cakes	Guangzhou-style Lotus Paste Crystal Cakes, Sichuan Renshou Sesame Seed Cakes
2.1.2.2	Western-style decorative cakes	Flower-framed cakes, Egg Cakes, Rolled Cakes, Mousse Cakes, Massecuite Decorative Cakes
2.1.2.3	Syrup pastry	Caramel Treats, Peking-style Misandao, Suzhou-style Kaipageng, Guangzhou-style Xuetiao, Doughnuts, Yunnan-style Lotus Cakes, Lanhuagen
2.1.2.4	Pastry with filling	Cakes with filling, cakes with stuffing, egg pies with filling, and egg pies with stuffing
2.1.2.5	Rice cakes	Mashu, Qingtuan, Shuangniangtuan, and glutinous rice cakes
2.1.2.5.1	Raw ingredient	Yuanxiao (sweet dumplings) and Tangyuan (sweet soup balls)

National Standards of People's Republic of China

GB 7099-2003

National Food Safety Standards

Hygienic Standard for Pastry and Bread

Issued on: 2003-09-12 Implemented on: 2004-05-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China & Standardization Administration Management Committee

Foreword

This standard is fully mandatory.

This standard substitutes GB7099- 1998 Hygienic Standard for Pastry and Bread.

As compared with GB 7099-1998, this standard has made major changes as follows::

- The standard text format is revised according to GB/T 1.1-2000;
- The structure of the original standard is revised, by adding the hygienic requirements for raw and auxiliary materials, food additives and process of production and processing and requirements for packing, identification, storage and transportation;
- The measuring unit of peroxide value is changed from meq/kg to g/100g ;
- The measuring unit of acid value is added as (KOH) mg/g.

As from the date of implementing this standard, GB 7099-1998 will be automatically abolished.

This standard is set forth and classified by Ministry of Health of the People's Republic of China.

This standard is drafted by (institutions): Beijing Center for Disease Prevention and Control, Tianjin Institute for Food Hygienic Supervision and Inspection, Chongqing Institute for Food Hygienic Supervision and Inspection and Shandong Institute for Food Hygienic Supervision and Inspection.

This standard is mainly drafted by (persons): Meng Xianxi, Zhang Zheng, Hu Yuying, He Zhongchen, Wang Guixiang, Ding Xiuying and Liang Jin.

The previous versions of the standards substituted by this standard are as follows:

The original standard GBn 145 Hygienic Standard for Pastry was initially published in 1981 and amended for the first time in 1986 GB 7100 Hygienic Standard for Pastry, Biscuit and Bread; GB 7099 Hygienic Standard for Decorative Cake was initially published in 1986; in 1998GB 7099 and GB 7100 were amended again, by combining the hygienic standard for pastry and bread in GB 7099 and GB 7100 to GB 7099-1998 Hygienic Standard for Pastry and Bread.

National Food Standards

Hygienic Standard for Pastry and Bread

1. Scope

This standard specifies the indicator requirements of pastry and bread, hygienic requirements for food additives and process of production and processing, requirements for packing, identification, storage and transportation and test methods.

This standard is applicable to all types of pastry and bread foodstuffs with grain, fat, edible sugar and egg as the main raw materials, added with an appropriate amount of auxiliary materials by mixing, forming and cooking.

2. Normative References

The provisions in the following documents become the provisions of this standard by being referred to herein. Where any reference is dated, all its subsequent amendments (excluding the content of correction) or revision shall not be applicable this standard, but the parties making an agreement according to this agreement are encouraged to study whether to use the latest versions of such documents. Where any reference is not dated herein, its latest version (inclusive of all the amendments) shall be applicable herein.

GB 2760 Hygienic Standard for Uses of Food Additives

GB/T4789.24 Microbiological Examination of Food Hygiene—Examination of Candy, Cake and Preserved Fruit

GB/T 5009.22 Determination of Aflatoxin B1 in Foods

GB/T 5009.56 Method for Analysis of Hygienic Standard of Pastry

GB 8957 Hygienic Specifications of Pastry Factory

3. Terms and Definitions

The following terms and definitions shall be applicable to this standard.

3.1 Hot-processed pastry and bread

Pastry and bread foodstuffs with heating and cooking as the final step in processing.

3.2 Cold-processed pastry and bread

Pastry and bread foodstuffs added with butter, artificial butter, egg white, cocoa and other seasonings after heating and cooking, without further cooking afterwards.

4. Indicator Requirement

4.1 Raw Material Requirement

Conform to the relevant standard and related provisions. Unpacked or bulk cream, butter, egg white and other perishable raw materials shall be kept at a low temperature.

4.2 Organoleptic Requirements

With the normal color and lustre, smell, taste and tissue form of pastry and bread, respectively, without such peculiar smell as rancidity and mildew; the food products shall not have, internally and externally, any mildew, worms and other foreign pollutants.

4.3 Physicochemical Indicators

Physicochemical indicators shall conform to the provisions of Table 1.

Table 1 physicochemical indicators

Items		Indicators
Acid value (as per fat) (KOH)/ (mg/g)	≤	5
Peroxide value (as per fat)/ (g/100g)	≤	0.25
Total Arsenic (as per As)/ (mg /kg)	≤	0.5
Lead (Pb)/ (mg /kg)	≤	0.5
Aflatoxin B_1/ (μg/kg)	≤	5.0

4.4 Microbial Indicators

Microbial indicators shall conform to the provisions of Table 2.

Table 2 Microbial indicators

Items		Indicators	
		Hot-processing	Cold-processing
Total bacterial colony/ (cfu/g)	≤	1500	10000
Coliforms/ (MPN/100g)	≤	30	300
Mould count/ (cfu/g)	≤	100	150
Pathogenic bacteria (salmonella, shigella, staphylococcus aureus)		Should not be detected	

5. Food Additives

5.1 The quality of food additives is in conformity to the relevant standard and related provisions.

5.2 Variety and usage of food additives shall conform to the provisions of GB2760.

6. Hygienic Requirement for Process of Production and Processing

Conform to the provisions of GB 8957.

7. Packing

Packing containers and materials shall conform to the relevant hygienic standard and related provisions.

8. Identification

The identification requirement for stereotype packing shall conform to the relevant provisions and cold processing or hot processing shall be marked on the unit package of products.

9. Storage and Transportation

9.1 Transportation: Products shall be transported to avoid sunlight and rain and shall not be transported together with toxic, harmful, smelly or quality-affecting articles.

9.2 Storage: Products shall be stored a dry and well-ventilated place and shall not be stored together with toxic, harmful, smelly and corrosive articles.

9.3 Products in bulk shall be stored, transported and sold to avoid dust and contamination; cold-processed products shall be stored, transported and sold at a low temperature.

10. Test Method

10.1 Organoleptic Requirements

Take more than 50g of samples to observe whether their color and lustre, smell, taste and tissue form are normal. Shall conform to Section 4.2 Organoleptic Requirements, without any mildew, worms and other foreign pollutants.

10.2 Physicochemical Indicators

10.2.1 Acid value, peroxide value, arsenic and lead

Determine as per method provided by GB/T 5009.56.

10.2.2 Aflatoxin B_1

Determine as per method provided by GB/T 5009.22.

10.3 Microbial Indicators

Examine as per method provided by GB/T 4789.24.

Other Process Foods

GB 9678.1-2003 Hygienic Standard for Candy

National Standards of People's Republic of China

GB 9678.1-2003

National Food Safety Standards

Hygienic Standard for Candy

Issued on: 2003-09-24 Implemented on: 2004-05-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China & Standardization Administration Management Committee

Foreword

This standard is fully mandatory.

This standard substitutes GB 9678.1-1994 Hygienic Standard for Candy.

As compared with GB 9678.1-1994, this standard has made major changes as follows:

- The standard text format is revised according to GB/T 1.1-2000;
- The structure of the original standard is revised, by adding the hygienic requirements for food additives and process of production and processing and requirements for packing, identification, storage and transportation;
- The sulfur dioxide residue indicator is added.

As from the date of implementing this standard, GB 9678.1-1994 will be automatically abolished.

This standard is set forth and classified by Ministry of Health of the People's Republic of China.

This standard is drafted by (institutions): , Shanghai Institute for Food Hygienic Supervision and Inspection, Guangdong Institute for Food Hygienic Supervision and Inspection, Shanghai Luwan District Sanitation and Anitepidemic Station, Heilongjiang Institute for Food Hygienic Supervision and Inspection, Shanghai Guanshengyuan Food Factory, and Chongqing Sanitation and Anitepidemic Station.

This standard is mainly drafted by (persons): Zhang Weilan, Guan Huiyan, Dai Maqing, Jia Zhongqi, Chen Defeng, Zhang Jian and Zhang Zheng.

The previous versions of the standards substituted by this standard are as follows::

- GB 9678-1988, GB 9678.1-1994.

National Food Standards

Hygienic Standard for Candy

1. Scope

The standard specifies the indicator requirements of candy, hygienic requirements of food additives and process of production and processing, and test method.

This standard is applicable to candies made by processing as per certain process, with white granulated sugar, starch syrup, dairy products and gelata as the main raw materials.

2. Normative References

The provisions in the following documents become the provisions of this standard by being referred to herein. Where any reference is dated, all its subsequent amendments (excluding the content of correction) or revision shall not be applicable this standard, but the parties making an agreement according to this agreement are encouraged to study whether to use the latest versions of such documents. Where any reference is not dated herein, its latest version (inclusive of all the amendments) shall be applicable herein.

GB 2760 Hygienic Standard for Uses of Food Additives

GB/T4789.24 Microbiological Examination of Food Hygiene—Examination of Candy, Cake and Preserved Fruit

GB/T 5009.11 Determination of Total Arsenic and Abio-arsenic in Foods

GB/T5009.12 Determination of Lead in Foods

GB/T5009.13 Determination of Copper in Foods

GB/T5009.34 Determination of Sulfite in Foods

GB 14881 General Hygienic Regulation for Food Enterprises

SB 10346 Candy Classification

3. Terms and Definitions

The terms and definitions established in SB 10346 are applicable to this standard.

4. Indicator Requirement

4.1 Raw Material Requirement

Conform to the relevant standard and related provisions.

4.2 Organoleptic Requirements

With relevant colors, fragrance and forms of different candies, but without peculiar smells and impurities seeable with naked eye.

4.3 Physicochemical Indicators

Physicochemical indicators shall conform to the provisions of Table 1.

Table 1 Physicochemical Indicators

Items		Indicators
Lead (Pb)/ (mg /kg)	≤	1
Total Arsenic (as per As)/ (mg/L)	≤	0.5
Copper (Cu)/ (mg/L)	≤	10
Residue of SO_2		Refer to GB 2760

4.4 Microbial Indicators

Microbial indicators shall conform to the provisions of Table 2.

Table 2 Microbial Indicators

Items		Indicators
Total bacterial colony/ (cfu/G)		
Hard candies and polished candies	≤	750
Caramel candy, aerated confections	≤	20000
Filled candies	≤	2500
Gelainized confections	≤	1000
Coliforms (MPN/100G)		
Hard candies and polished candies	≤	30
Caramel candy, aerated confections	≤	440
Filled candies	≤	90
Gelainized confections	≤	90
Pathogenic bacteria (salmonella, shigella, and staphylococcus aureus)		Should not be detected

5. Food Additives

5.1 The quality of food additives is in conformity to the relevant standard and related provisions.

5.2 Variety and usage of food additives shall conform to the provisions of GB2760.

6. Hygienic Requirement for Process of Production and Processing

Conform to the provisions of GB 14881.

7. Packing

Packing containers and materials shall conform to the relevant hygienic standard and related provisions.

8. Identification

The identification requirement for stereotype packing shall conform to the relevant provisions.

9. Storage and Transportation

9.1 Storage

Products shall be stored a dry and well-ventilated place and shall not be stored together with toxic, harmful, smelly, evaporative and corrosive articles.

9.2 Transportation

Products shall be transported to avoid sunlight and rain and shall not be transported together with toxic, harmful, smelly or quality-affecting articles.

10. Test Method

10.1 Physicochemical Indicators

10.1.1 Physicochemical Inspection Sample Treatment

Take 10 candies, wrap the hard candies with filter paper internally and with plastic bag externally, and then crush them with a hammer; shear soft candies with scissors and mix them respectively. Take 10g of the sample and put into the Kjeldahl flask, and prepare the constant volume up to 100mL after the organic destruction as per mixed acid method.

10.1.2 Lead

Take 20mL sample digested juice and determine as per method provided by GB/T 5009.12.

10.1.3 Total Arsenic

Take 25mL sample digested juice and determine as per method provided by GB/T 5009.11.

10.1.4 Copper

Take 25mL sample digested juice and determine as per method provided by GB/T 5009.13.

10.1.5 SO_2

Take 25mL sample digested juice and determine as per method provided by GB/T 5009.34.

10.2 Microbial Indicators

Determine as per method provided GB/T 4789.24.

National Standards of People's Republic of China

GB 19640-2005

National Food Safety Standards

Hygienic Standard for Breakfast Cereal

Issued on: 2003-09-24 Implemented on: 2004-05-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China & Standardization Administration Management Committee

Foreword

This entire standard is mandatory.

This standard will be implemented with effect from October, 1st 2005, given a transition period of one year. Any products manufactured before October, 1st 2005 and at the same time fulfill the requirements of corresponding standards will be allowed to be sold till September, 30th 2006.

This standard was proposed by the Ministry of Health of the People's Republic of China and also placed under its jurisdiction.

The organizations involved in the drafting of this standard: Beijing City Health and Epidemic Prevention Services, Public Health Supervision and Inspections Services of the Tianjin City Health Bureau, Chongqing City Hygiene and Epidemic Prevention Station, Guangzhou City Hygiene and Epidemic Prevention Station, Jilin Province Hygiene and Epidemic Prevention Station, Heilongjiang Province Hygiene and Epidemic Prevention Station, Nanjing Wang's Food Co., Ltd, Vitamax Food (Fujian) Co., Ltd and Kelloggs (China) Co., Ltd.

The key personnel involved in the drafting of this standard: Xiuying Ding, Guihong Wu, Jun Wu, Shaojuan Chen, Jiandong Bi, Huilai Ma and Changying Tian.

National Food Standards

Hygienic Standard for Breakfast Cereal

1. Scope

This standard specifies the hygiene indexes and test methods as well as the hygienic requirements for food additives, production and processing procedures, packaging, labeling, storage and transportation for breakfast cereal products.

This standard applies to ready-to-eat or heat-to-eat prepackaged food products manufactured with grains such as oat, barley, wheat, buckwheat, corn, and rice as key ingredients.

2. Normative References

Clauses involved in the following documents constitute the ones in this standard through references in this standard. If any reference is dated, the following amendment or revised versions (excluding errata) are not applicable to this standard. However, all parties who previously reach trade agreements according to this standard are encouraged to explore whether the latest versions of these documents can be used. Any latest version of the non-dated references is applicable to this standard.

GB 2760 *Hygienic Standard for Uses of Food Additives*

GB/T 4789.33 *Microbiological Examination of Food Hygiene – Grains, Fruits and Vegetable Category Food Examination*

GB/T 5009.3 *Determination of Moisture in Foods*

GB/T 5009.11 *Determination of Total Arsenic & Inorganic Arsenic Content in Foods*

GB/T 5009.12 *Determination of Lead in Foods*

GB/T 5009.22 *Determination of Aflatoxin B_1 in Foods*

GB 7718 *General Principle for Prepackaged Food Labels*

GB 14881 *General Hygiene Practices for Food Enterprises*

3. Definitions

The following definition will apply for this standard.

4.2 Pure Breakfast Cereal

Refers to ready-to-eat or heat-to-eat prepackaged food that can be brewed for consumption, manufactured through processes such as crushing (or without crushing), aging, compression, drying with a single type of grain-based ingredient, e.g. oat, barley, wheat, buckwheat, corn, rice.

3.2 Mixed Breakfast Cereal

Refers to ready-to-eat prepackaged food that can be brewed for consumption, manufactured through processes such as crushing, aging, compression, drying with a mix of grain-based ingredients like oat,

barley, wheat, buckwheat, corn, rice with (or without) the addition of supplementary ingredients like milk, vegetable creamer, sugar.

4. Index Requirements

4.2 Ingredient Requirements

Should comply with corresponding standards and relevant regulations.

4.2 Sensory Index

No unusual odor, and not moldy.

4.3 Physical-Chemical Indexes

Physical-chemical indexes should comply with the requirements listed in Table 1.

Table1 Physical-Chemical Indexes

Items		Index	
		Pure Breakfast Cereal	Mixed Breakfast Cereal
Water Content / (g/100 g)	≤	10.0	5.0
Total Arsenic (by As content) / (mg/kg)	≤	0.5	
Lead (Pb) / (mg/kg)	≤	0.5	
Aflatoxin B_1 / (μg/kg)	≤	5	

4.4 Microorganism Indexes

Microorganism indexes should comply with the requirements listed in Table 2.

Table 2 Microorganism Indexes

Items		Index
Total Bacteria Count / (cfu/g)	≤	10,000
Coliform / (MPN/100 g)	≤	40
Pathogens (Salmonella, Shigella, Staphylococcus aureus)		Should not be detected
Mold / (cfu/g)	≤	50

5. Food Additives

5.1 Quality of food additives should comply with corresponding standard and relevant regulations.

5.2 Type and quantity of food additives used should comply with the requirements of GB 2760.

6. Production and Processing Procedures

Should comply with the requirements of GB 14881.

7. Labeling

Should comply with the requirements of GB 7718.

8. Packaging

Packaging container and material should comply with corresponding standard and relevant regulations.

9. Storage and Transportation

9.1 Storage

Products should be stored at dry, well-ventilated places. They should not be stored together with poisonous, harmful, foul-smelling, volatile and corrosive substances.

9.2 Transportation

Sunlight and rain should be avoided during product transportation. Products should not be transported together with poisonous, harmful, foul-smelling and any other substances that may have material impact on the quality of the products.

10. Inspection Methods

10.1 Water Content

Tested according to the method(s) stipulated in GB/T 5009.3.

10.2 Total Arsenic

Tested according to the method(s) stipulated in GB/T 5009.11.

10.3 Lead

Tested according to the method(s) stipulated in GB/T 5009.12.

10.4 Aflatoxin B_1

Tested according to the method(s) stipulated in GB/T 5009.22.

10.5 Total Bacteria Count, Coliform, Pathogens, Mold

Tested according to the method(s) stipulated in GB/T 4789.33.

National Standards of People's Republic of China

GB/T 22474-2008

National Food Safety Standards

Jam

Issued on: 2008-11-04 Implemented on: 2009-06-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China & Standardization Administration Management Committee

Foreword

This standard is formulated on the basis of such domestic trading standards implemented for years as SB/T 10058-1992 Kiwi Fruit Jam, SB/T 10059-1992 Hawthorn Jam, SB/T 10088-1992 Apple Jam and SB/T 10196-1993 General Technical Conditions for Jam and with reference to the present market environment, consumer demands and production technology and processing workmanship of jam producers.

This standard is set forth by China General Chamber of Commerce.

This standard is classified by the Ministry of Commerce of the People's Republic of China.

This standard is drafted by Commercial Standard Center of China General Chamber of Commerce.

Major institutions involved in drafting this standard: Shandong Donglaoda Food Co., Ltd, Shanxi Weizhiwang Food Co., Ltd, National Food Quality Supervision and Inspection Center, MOH Heath Supervision Center, Beijing Kewpie Food Co., Ltd, Shanghai McCormick Food Co., Ltd, Juxiangyuan Healthy Food (Zhongshan) Co., Ltd, Beijing Sanleyuan Food Processing Co., Ltd, Shanghai Rich Garden Food Co., Ltd, and Shijiazhuang Yongxing Preserved Fruits Factory.

This standard is mainly drafted by (persons): Zheng Chuanniu, Dong Chao, Song Yongxiang, Song Quanhou, Shi Chaoju, Pan Liping, Zhang Yanjie, Liu Xin, Wang Weiya, Qi Shengli, Li Lite, and Qian Zhixian.

National Food Standards

Jam

1. Scope

This standard specifies the jam-related terms and definitions, product classification, requirements, test method and inspection rules and requirements of identification and labeling.

This standard is applicable to the products in compliance with the definitions of Sections 3.1 and 3.

2. Normative References

The provisions in the following documents become the provisions of this standard by being referred to herein. Where any reference is dated, all its subsequent amendments (excluding the content of correction) or revision shall not be applicable this standard, but the parties making an agreement according to this agreement are encouraged to study whether to use the latest versions of such documents. Where any reference is not dated herein, its latest version (inclusive of all the amendments) shall be applicable herein

GB 3 17 White granulated sugar

GB 1 987 Food Additive—Citric Acid

GB 2759.1 Hygienic Standard for Frozen Drinks

GB 2760 Hygienic Standard for Uses of Food Additives

GB/T4789.24 Microbiological Examination of Food Hygiene – Examination of Candy, Cake and Preserved Fruit

GB/T 4789.26 Microbiological Examination of Food Hygiene – Examination of Commercial Sterilization of Canned Food

GB/T5009.8 Determination of Sugar in Foods

GB/T 5009.11 Determination of Total Arsenic and Abio-arsenic in Foods

GB/T50o9.12 Determination of Lead in Foods

GB/T5009.16 Determination of Tin in Foods

GB 5749 Hygienic Standard for Drinking Water

GB 7099-2003 Hygienic Standard for Pastry and Bread

GB 7718 General Provisions for Labelling of Prepackaged Food

GB/T 10786 Analytical Method of Canned Food

GB 11671-2003 Hygienic Standard for Canned Fruits and Vegetables

GB 14880 Hygienic Standard for the Use of Nutritional Fortification Substances in Foods

GB 19302 Hygienic Standard for Yoghurt

JJF 1070 Rules of Metrological Testing for Net Quantity of Products in Prepackages with Mixed Content

Decree No. 75 of General Administration of Quality Supervision, Inspection and Quarantine – Administrative Measures for Supervision over Measurement of Net Quantity of Products in Prepackages

Administrative Measures for Supervision over Weighing and Measuring of Retail Commodities published jointly by General Administration of Quality Supervision, Inspection and Quarantine and State Administration for Industry and Commerce vide Decree No. 66

Decree No. 102 of General Administration of Quality Supervision, Inspection and Quarantine—Regulations for the Administration of Food Identification

3. Terms and Definitions

The following terms and definitions shall be applicable to this standard.

3.1 Jam

Paste-like products made with fruit, fruit juice or pulp and sugar as the main raw materials by the processes of pretreatment, cooking, pulping (or crushing), mixing, concentrating and packaging.

3.2 Fruit-flavor jam

Fruit-flavor fruit jam

Paste-like products made by adding or not adding fruit, juice or pulp, using such food additives as thickener, edible essence and colorant and adding sugar (or not adding sugar), by the process of mixing, cooking, concentrating and packaging.

3.3 Sweating

Leachate from the products after being kept for a period of time.

4. Product Classification

4.1 By raw materials

4.1.1 **Fruit jam:** usage of fruit, fruit juice or pulp in ingredient is more than or equivalent to25%;

Note: usage of fruit, fruit juice or pulp is calculated as per fresh fruit

4.1.2 **Fruit-flavor jam:** usage of fruit, fruit juice or pulp in ingredient is less than 25%;

4.2 By processing techniques

4.2.1 Canned jam: jam products produced as per canning process.

4.2.2 Other jams: jam products produced as per process other than canning.

4.3 By purposes

4.3.1 Raw material jam: jam to be supplied to the food producers as the raw and auxiliary materials for manufacturing other foods.

4.3.1.1 Yoghurt jam: jam for adding in yoghurt, which can remain stable.

4.3.1.2 Frozen-drink jam: jam for adding into ice cream and other frozen sweets.

4.3.1.3 Bakery jam: jam for adding into bakery products.

4.3.1.4 Other jams: jams as raw materials for producing other foods except for the foregoing purposes.

4.3.2 Seasoning jam: jam provided to consumers directly, for taking together with other foods.

5. Requirements

5.1 Raw and auxiliary materials and packing materials

5.1.1 Fruit, fruit juice or pulp: in conformity to the provisions of the relevant national standards.

5.1.2 White granulated sugar: in conformity to the provisions of GB 317.

5.1.3 Citric acid: in conformity to the provisions of GB 1987.

5.1.4 Water: in conformity to the provisions of GB5749.

5.1.5 Packing materials and other raw and auxiliary materials shall conform to the provisions of the relevant national regulations and standards.

5.2 Organoleptic Requirements

Comply with the provisions of Table 1.

Table 1 Organoleptic Requirements

Items	Requirement
Color and lustre	With the necessary color and lustre of the variety
Taste and texture	Without peculiar smell, properly sour and sweet, pure taste and necessary flavor of the variety
Impurity	Without any impurity seen with normal vision
Tissue form	Even, without obvious layering and sweating, without crystallization

5.3 Physicochemical indicators

Comply with the provisions of Table 2.

Table 2 Physicochemical Indicators

Items		Jam Indicator	Fruit-flavor Jam Indicator
Soluble solids (as per 20°C refraction)	≥	25	--
Total sugar/ (G/1009)	≤	--	65
Total Arsenic (as per As)/ (mg/kg)	≤	0.5	
Lead (Pb)/ (mg/kg)	≤	1.0	
Tin (Sn)/ (mg/kg)	≤	250[a]	
Note 1: "--" indicates no requirement. Note 2: Indicators of total Arsenic, Lead and Tin are set with reference to GB 1 1671-2003 and are the same as the standard			
[a] Limited to tinplate cans only.			

5.4 Microbial Indicators

5.4.1 Canned jam

Comply with the provisions of GB 11671 Commercial Sterilization.

5.4.2 Raw material jam

5.4.2.1 Yoghurt jam: coliforms, mould, pathogenic bacteria shall conform to the provisions of GB 19302; total bacterial colony shall conform to the provision of "cold processing" in GB 7099-2003.

5.4.2.2 Frozen-drink jam: total bacterial colony, coliforms, and pathogenic bacteria shall conform to the provisions of GB 2759.1; mould shall conform to the provision of "cold processing" in GB 7099-2003.

5.4.2.3 Bakery jam: total bacterial colony, coliforms, and pathogenic bacteria shall conform to the provision of "hot processing" in GB 7099-2003.

5.4.2.4 Other jams: total bacterial colony, coliforms, mould, and pathogenic bacteria shall conform to the provision of "hot processing" in GB 7099-2003.

5.4.3 Seasoning jam

Total bacterial colony, coliforms, mould, and pathogenic bacteria shall conform to the provision of "hot processing" in GB 7099-2003.

5.5 Food Additives

Comply with the provisions of GB 2760; nutritional fortification substance shall conform to the provisions of GB 14880.

5.6 Net Content

Comply with the provisions of the Administrative Measures for Supervision over Measurement of Net Quantity of Products in Prepackages; sales by weighing shall conform to the provisions of Administrative Measures for Supervision over Weighing and Measuring of Retail Commodities.

6. Test Method

6.1 Organoleptic

Using a stainless steel spoon, take about 20g sample for placing into a clean white porcelain dish, observe its color and lustre, issue form for any impurity, smell and taste and evaluate.

6.2 Physicochemical Indicators

6.2.1 Total sugar

Determine as per method provided by GB/T 5009.8.

6.2.2 Soluble solids

Determine as per method provided by GB/T 10786.

6.2.3 Lead

Determine as per method provided by GB/T 5009.12.

6.2.4 Total Arsenic

Determine as per method provided by GB/T5009.11.

6.2.5 Tin

Determine as per method provided by GB/T5009.16.

6.3 Microbial indicators

6.3.1 Commercial sterilization

Determine as per method provided by GB/T 4789.26.

6.3.2 Inspection of total bacterial colony, coliforms, mould, and pathogenic bacteria

Determine as per method provided by GB/T 4789.24.

6.4 Net Content

Determine as per method provided by llF 1070.

7. Test Rules

7.1 Batches

Products of the same variety, same batch of materials used, and same production are in one batch.

7.2 Ex-factory Test

7.2.1 Inspect the products before dispatching as per requirement of this standard and issue the product certificate before dispatching.

7.2.2 Label, net content, organoleptic requirements, total bacterial colony, coliforms, and soluble solids are the items to be inspected for each batch; other items will be periodically inspected, but at least twice annually.

7.3 Type Test

The items of type test shall include all the items provided in Section 5. For normal production, carry out one type test every 12 months. The type test shall be conducted in case of any one of the following circumstances:

a) When appraising a new product;

b) In due operation, if raw materials and production process changes, as may affect the product quality;

c) When resuming production after stoppage of products for more than six months;

d) When the test results are observed with a major difference from the last test results;

e) When required by the authority of quality supervision.

7.4 Method and Quantity of Sampling

7.4.1 For ex-factory test, take 3 samples at random from each batch, of which each shall be more than or equivalent to 100g of the unit packaged commodity.

7.4.2 For the type test, take 3 samples at random from each batch, of which each shall be more than or equivalent to 100g of the unit packaged commodity.

7.5 Guidelines for Evaluation

7.5.1 Ex-factory test evaluation and checking

7.5.1.1 When the all items of ex-factory test conform to this standard, it will be evaluated as qualified.

7.5.1.2 In the inspection of organoleptic requirement, where any one of peculiar smell, contamination, mould, foreign impurity or microbial indicators fail, the products of the batch will be evaluated as disqualified and shall not be rechecked. Where other indicators fail to conform, the disqualified items can be rechecked among the products of the same batch; where any one of the items fails to conform upon rechecking, the products of the batch will be evaluated as disqualified.

7.5.2 Type test evaluation and rechecking

7.5.2.1 When the all items of type test conform to this standard, it will be evaluated as qualified.

7.5.2.2 Where not more than two type test items fail to conform to this standard, double sampling can be conducted for rechecking. Where one item fails to conform to this standard upon rechecking, the products of the batch are evaluated as disqualified. Where more than two items or one item of microbiological test fail to conform to this standard, the products of the batch shall be evaluated as disqualified.

7.5.2.3 The indicators of food additives in foods shall be inspected and evaluated comprehensively with reference to the range and usage of food additives allowed in the ingredient schedule.

8. Identification and Labelling

8.1 Comply with the provisions of the Administrative Provisions on Food Labelling.

8.2 Quantified prepackaged products shall conform to the provisions of GB 7718.

8.3 “Fruit Jam” or “Fruit-flavor Jam” shall be marked.

National Standards of People's Republic of China

GB/T 23787-2009

National Food Safety Standards

Non-fried Vegetable and Fruit Crisp Chips

Issued on: 2008-11-04 Implemented on: 2009-06-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China & Standardization Administration Management Committee

Foreword

This standard is set forth and classified by National Technical Committee on Food Industry of Standardization Administration of China.

This standard is drafted by (institutions): National Center for Fruit and Agricultural By-product Quality Supervision and Inspection, Hebei Oriental Green Tree Food Co., Ltd and Hebei Institute for Product Quality Supervision and Inspection.

This standard is mainly drafted by (persons): Liu Liantai, Liu Tieshuan, Wang Cheng, Zhang Huijun, Zhao Wei, Mao Lian, Sun Wei, and Li Lite.

National Food Standards

Non-fried Vegetable and Fruit Crisp Chips

1. Scope

This standard specifies the requirements for non-fried vegetable and fruit crisp chips, test method, inspection rules, label and marks, packing, transportation and storage.

This standard is applicable to production, inspection and sale of non-fried vegetable and fruit crisp chips.

2. Normative References

The provisions in the following documents become the provisions of this standard by being referred to herein. Where any reference is dated, all its subsequent amendments (excluding the content of correction) or revision shall not be applicable this standard, but the parties making an agreement according to this agreement are encouraged to study whether to use the latest versions of such documents. Where any reference is not dated herein, its latest version (inclusive of all the amendments) shall be applicable herein.

GB 2760 Hygienic Standard for Uses of Food Additives

GB 2761 Maximum Levels of Mycotoxins in Foods

GB 2762 Maximum Levels of Pollutants in Foods

GB 2763 Maximum Residue Limits for Pesticides in Food

GB/T 5009.6 Determination of Fat in Foods

GB/T 6003.1 Test Sieves of Metal Wire Cloth (GB/T 6003.1-1997, eqv 1503310-1: 1990)

GB 7718 General Provisions for Labelling of Prepackaged Food

GB/T 8858 Method for Determination of Dry Matter and Water Content in Fruit and Vegetable Products

3. Product Classification

By adding or not adding seasoners, the products can be classified into the following two types:

a) Original-taste non-fried vegetable and fruit crisp chips: crispy dry vegetable and fruit products made with fruits and vegetables as raw materials by slicing (or not slicing) before non-fried dewatering.

b) Seasoned non-fried vegetable and fruit crisp chips: crispy dry vegetable and fruit products made after adding seasoners into the original-taste non-fried vegetable and fruit crisp chips.

4. Requirements

4.1 Raw Material Requirement

4.1.1 The variety, maturity and freshness of raw fruits and vegetables shall conform to the processing requirement as well as to the provisions of GB 2762 and GB 2763, with diseased and deteriorated fruits and vegetables sharing less than 5% in the raw materials of the whole batch.

4.1.2 The quality of food additives shall conform to the relevant national standards or industrial standards

4.2 Organoleptic Features

The organoleptic features shall conform to the provisions of Table 1.

Table 1 Organoleptic Features

Items	Features
Color and lustre	With the necessary normal color and lustre of the fruit and vegetable upon processing
Taste and texture	With the necessary taste and fragrance of the fruit and vegetable upon processing, without peculiar smell, but with crispy texture
Tissue form	In lump, slice, strip or whole form of the variety and all forms basically intact
Impurity	Without any impurity seen with normal vision

4.3 Physicochemical indicators

Physicochemical indicators shall conform to the provisions of Table 2.

Table 2 Physicochemical Indicators

Items		Indicators
Moisture/ %	≤	5.0
Screened matter/ %	≤	5.0
Fat/%	≤	5.0

4.4 Indicator of Mycotoxins

The indicator of mycotoxins shall conform to the provisions of GB 2761.

4.5 Pollutant indicator and pesticide residue indicator and microbial indicator

The pollutant indicator and pesticide residue indicator and microbial indicator shall conform to the provisions of the relevant hygienic standards.

4.6 Food additives

Variety and usage of food additives shall conform to the provisions of GB 2760 .

5. Test Method

5.1 Organoleptic

Place the sample to be tested into a clean white porcelain dish, observe, with naked eye, the color and lustre, tissue form and impurity, smell and taste.

5.2 Physicochemical Indicators

5.2.1 Moisture

Determined as per method provided by GB/T 8858.

5.2.2 Screened matter

Unpack the sample in one package with a quantity of at least 100g, weigh its quality (m_l) using a balance with an inductor of 0.1g, for placing, together with the receiver, into the test sieve in conformity to the specification of Φ 200 x50-2.8/1.12 in GB/T 6003.1; the sample put into the test sieve each time shall exceed the volume of the test sieve by one third, hold, with two hands, the test sieve and shake horizontally 8 to 10 circles (at a frequency of about 80 circles per minute and a shaking diameter of about 250 mm), pour out the unscreened matter, and continue with screening the remaining sample according to the foregoing requirement and weigh the quality (m_2) of the screened matter upon screening all the samples and calculate the screened matter as per Formula (1).

$$X = \frac{m_2}{m_1} \times 100 \qquad \cdots\cdots(1)$$

Where:

X — content of screened matter, %;

m_1 — quality of sample, in the unit as g;

m_2—quality of screened matter, in the unit of g.

5.2.3 Fat

Determine as per method provided by GB/T 5009.6.

6. Inspection Rules

6.1 Batches

Products of the same variety from one production line and one shift are in one batch.

6.2 Sampling method and quantity

Sample the specified pieces, at random, from the products of the same batch at different locations in the product warehouse and then sample at least 2kg (not less than 12 minimum sale packages) from all the samples. Divide the sample into two shares: one is for inspection and the other for future reference. For the pieces of sampling, see Table 3.

Table 3 Pieces of Sampling Unit: Pieces

Packages per batch	Pieces of Sampling
≤ 200	3
201 ~ 800	4
801 ~ 1 800	5
1 801 ~ 3 200	6
> 3200	7

6.3 Ex-factory test

Ex-factory test Items include: organoleptic, moisture, screened matter and total bacterial colony and coliforms provided in Hygienic Indicators.

6.4 Type Test

Type Test includes all the items provided herein. Generally, it shall be conducted once semi-annually. In any one of the following circumstances, the type test shall also be conducted:

a) When appraising a new product;

b) When raw materials and production process changes, as may affect the product quality;

c) When resuming production after stoppage of products for more than six months;

d) When the ex-factory test results are observed with a major difference from the last type test results;

e) When the type test is required by the authority of quality supervision.

6.5 Guidelines for Evaluation

6.5.1 Ex-factory test

6.5.1.1 When the all items of ex-factory test conform to this standard, it will be evaluated as qualified.

6.5.1.2 Where any one of microbial indicators among the items of ex-factory test fails to conform to this standard, the products of the batch are evaluated as disqualified.

6.5.1.3 Where other items than microbial indicators in the items of ex-factory test fail to conform to this standard, the double sampling can be conducted from the products of the same batch for rechecking and the rechecking result shall prevail. Where any one of the indicators fails to conform upon rechecking, the products of the batch will be evaluated as disqualified.

6.5.2 Type Test

6.5.2.1 When the all items of type test conform to this standard, it will be evaluated as qualified.

6.5.2.2 Where any one of microbial indicators among the items of type test fails to conform to this standard, the products of the batch are evaluated as disqualified.

6.5.2.3 Where other items than microbial indicators in the items of type test fail to conform to this standard, the double sampling can be conducted from the products of the same batch for rechecking and the rechecking result shall prevail. Where any one of the indicators fails to conform upon rechecking, the products of the batch will be evaluated as disqualified.

7. Labelling & Marking, Packaging, Transportation and Storage

7.1 Labelling & Marking

Labels for sale packages of prepackaged products shall conform to the provisions of GB 7718.

7.2 Packing

7.2.1 Internal packing materials shall be clean, dry, non-toxic, without peculiar smell, and shall conform to the requirements and provisions of the relevant hygienic standards.

7.2.2 External packaging shall be firm and ensure that the contents will not be squeezed in transportation and storage.

7.3 Transportation

7.3.1 The vehicles shall be clean and dry, with sunscreen and rainproof measures.

7.3.2 Products shall be handled gently in transportation, without impacting and squeezing and shall not be transported with toxic, corrosive, smelly or evaporative articles.

7.4 Storage

7.4.1 Products shall be stored in a ventilated, dry, cool and clean warehouse.

7.4.2 Products shall not be stored together with toxic, harmful, smelly, evaporative and corrosive articles in one warehouse.

7.4.3 Products can be stacked without falling and damaging the external packages and products.

National Standards of People's Republic of China

GB/T 31318-2014

National Food Safety Standards

Preserved Fruits – Hawthorn Products

Issued on: 2014-12-05 Implemented on: 2015-06-01

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China & Standardization Administration Management Committee

Foreword

This standard is drafted according to the rules provided in GB/T1.1-2009.

This standard is set forth and classified by National Technical Committee of Food Standardization (SAC/TC64).

This standard is drafted by (institutions): China Association of Bakery & Confectionery Industry, Weifang Product Quality Supervision and Inspection Office, Hebei Yida Food Group Co., Ltd, Beijing Yushiyuan Food Co., Ltd, Beijing Hongluo Food Co., Ltd, Beijing Kangbeier Food Co., Ltd, Weizhiwang Food Co., Ltd, Tenwow (Fujian) Food Co., Ltd, Fujian Orient Food Group Co., Ltd, Hangzhou Chaodao Food Co., Ltd, and Guangdong Jiabao Group Co., Ltd.

This standard is mainly drafted by (persons): Zhao Yanping, Xu Jun, Zhang Bin, Wang Shulin, Dong Lijun, Jiang Yuxia, Sun Yuping, Song Yongxiang, Zhou Zhimin, Guan Junxiang, Cai Dongmei, Yang Wanyuan and Lin Peisheng.

National Food Standards

Preserved Fruits – Hawthorn Products

1. Scope

This standard specifies the product classification, technical requirements, test method, test rule, label, packing and storage for preserved-fruit hawthorn products.

This standard is applicable to the directly edible preserved fruits – hawthorn products, processed and made, by boiling, pulping, forming, drying, or sugaring, drying and other processes, with hawthorn, white granulated sugar and/or starch sugar as the main raw materials.

2. Normative References

Documents referred to herein shall be indispensable for the application of this document. Where any reference is dated herein, only the dated version shall be applicable herein. Where any reference is not dated herein, its latest version (inclusive of all the amendments) shall be applicable herein.

GB317 White Granulated Sugar

GB2760 National Food Safety Standard—Standards for Food Additives

GB5009.3 National Food Safety Standard—Determination of Moisture in Foods

GB5009.4 National Food Safety Standard—Determination of Ash in Foods

GB7718 National Food Safety Standard—General Standard for the Labelling of Prepackaged Foods

GB8956 Good Manufacturing Practices for Candied Food Enterprises

GB/T10782—2006 General Rule for Preserved Fruits

GB14884 Hygienic Standard for Preserved Fruits

GB15203 Hygienic Standard for Starch Sugar

GB28050 National Food Safety Standard—General Rule for the Nutrition Labelling of Prepackaged Foods

SB/T10092 Hawthorn

JJF1070 Rules for Metrological Testing for Net Quantity of Products in Prepackages with Fixed Content

(2005) Decree No. 75 of General Administration of Quality Supervision, Inspection and Quarantine—Administrative Measures for Supervision over Measurement of Net Quantity of Products in Prepackages

3. Classification of products

By production process, the products are classified into the following four types.

3.1 Haw Slices

Hawthorn products made by such processes of cooking, cooling, pulping, sugaring, slicing, baking and forming, with hawthorn and white granulated sugar as main raw materials, including dry slices and sandwiches.

3.2 Haw cakes

Products made with hawthorn, white granulated sugar and/or starch sugar as main raw materials by such processes as cooking, pulping and forming.

3.3 Candied hawthorns

Products made with hawthorn, white granulated sugar and/or starch sugar as main raw materials by such processes as cooking, sugaring and drying.

3.4 Fruit roll-ups

Products made with hawthorn, white granulated sugar and/or starch sugar as main raw materials by such processes as cooking, pulping, slicing, baking and forming, , such as fruit leather and sugarcoated haws.

4. Technical Requirements

4.1 Requirements for Raw and Auxiliary Materials

4.1.1 Hawthorn

Comply with the provisions of SB/T 10092.

4.1.2 White granulated sugar

Comply with the provisions of GB 317.

4.1.3 Starch sugar

Comply with the provisions of GB 15203.

4.1.4 Food additives and other raw and auxiliary materials

Comply with the provisions of the relevant national standards or industrial standards.

4.2 Organoleptic Requirements

Comply with the provisions of Table 1.

Table 1: Organoleptic Requirements

Items	Requirements			
	Haw slices	**Haw cakes**	**Candied hawthorns**	**Fruit roll-ups**
Color and lustre	With the necessary color and lustre of the product			
Tissue form	Fine tissues, intact form, even thickness; soft sandwich slices, with tenacity, dry slices with loose sense	Fine tissues, appropriately soft, slightly elastic, in a cake form	Intact beads, without flux sugar and grains	Fine tissues, with slight tenacity
Taste and flavor	With original fruit flavor, properly sour and sweet and without peculiar smell			
Impurity	Without any impurity seen with normal vision			

4.3 Physicochemical indicators

Comply with the provisions of Table 2

Table 2 Physicochemical Indicators

Items		Requirements				
		Haw slices		**Haw cakes**	**Candied hawthorns**	**Fruit roll-ups**
		Dry	**Sandwiched**			
Total sugar (as per glucose)/%	≤	85	75	70	70	75
Moisture/%	≤	15	20	50	35	30
Ash/%	≤	1.5				

4.4 Hygienic Indicators

Comply with the provisions of GB 14884.

4.5 Food additives

Comply with the provisions of GB 2760.

4.6 Net content

Comply with the provisions of Administrative Measures for Supervision over Measurement of Net Quantity of Products in Packages.

4.7 Production Process

Comply with the provisions of GB 8956.

5. Testing Methodology

5.1 Organoleptic Indicators

Detect as per method included in Section 6.2 in GB/T 10782-2006.

5.2 Physicochemical indicators

5.2.1 Total sugar

Detect as per method included in Section 6.5 in GB/T 10782-2006.

5.2.2 Moisture

Detect as per method included in GB 5009.3.

5.2.3 Ash

Detect as per method included in GB 5009.4.

5.3 Hygienic Indicators

Detect as per method included in GB 14884.

5.4 Net content

Detect as per method included in JJF 1070.

6. Inspection Rules

6.1 Batches

Products of the same variety, same batch of materials used, and same production are in one batch.

6.2 Sampling

Refer to GB/T 10782-2006.

6.3 Ex-factory Test

6.3.1 The items of ex-factory test include organoleptic indicators, net content, moisture, total sugar, total bacterial colony and coliforms.

6.3.2 Each batch of products shall be inspected by the inspection department of the producer according to the provisions of this standard and the product certificate shall be issued before dispatching from the factory.

6.4 Type Test

6.4.1 The items for Type Test shall include all the items provided in this standard.

6.4.2 Carry out one type test for products semiannually.

6.4.3 Carry out the type test in case of any one of the following circumstances:

- When changing the raw materials;
- When changing the process;

- When resuming production after long-term stoppage;
- When the ex-factory test shows a major difference from the last type test; or
- When the state administration of quality supervision, inspection and quarantine requires for a type test.

6.5 Guidelines for Evaluation

6.5.1 When all the items of test results conform to the provisions of this standard, the products of this batch are assessed as qualified products.

6.5.2 Where the microbial indicators fail to comply with the provisions of this standard by one and more than one item in the test results, the batch of products will be evaluated as disqualified products.

6.5.3 When other items than microbial indicators in the test result fail to comply with the provisions of this standard, the products of the original batch can be sampled by doubling for checking again. Where the checking results all comply with the provisions of this standard, the products of the batch are evaluated as qualified products; where any one indicator in the checking results is disqualified, the products of the batch are evaluated as disqualified.

7. Identification

Products in prepackages shall be labelled in compliance with the provisions of GB 7718, GB 28050.

8. Packing

The packing materials shall conform to the provisions of relevant national standards or industrial standards.

9. Storage

Comply with the provisions of GB 8956.