ICS 67.120.30
CCS X 73

National Standard of the People’s Republic of China

GB/T 24403-XXXX

Replace GB/T 24403-2009

General quality requirements for canned tuna

金枪鱼罐头质量通则

(English Translation)

Issue date: Implementation date:

Issued by State Administration for Market Regulation
Standardization Administration of the people's republic of china

Foreword

SAC/TC 64 is in charge of this English translation. In case of any doubt about the contents of English translation, the Chinese original shall be considered authoritative.

This document was drafted in accordance with the rules given in the GB/T 1.1—2020 *Directives for standardization Part 1:Structure and drafting of standards*.

This document specifies the technical requirements related to food quality. See relevant laws, regulations, policies, food safety standards and other documents for the requirements related to food safety.

This document replaces GB/T 24403-2009 *Canned tuna.* In addition to a number of editorial changes, the following technical deviations have been made with respect to the GB/T 24403-2009:

——the document name has been modified to *General quality requirements for canned tuna*;

——the scope of application has been modified and corresponding classification and requirements have been adjusted;

——the terms and definitions of canned tuna, chunk and flake have been modified, and the terms and definitions of piece and shredded have been added;

——the product classification of canned tuna has been added and the code requirements have been modified;

——the requirements for tuna varieties, the requirements for raw and auxiliary materials of frozen boiled tuna meat and white granulated sugar have been added, and the requirements for edible oil have been modified;

——the sensory requirements have been modified, i.e. the requirements for color and structural state have been modified, and the sensory requirements for oil and impurities have been added;

——the requirements for solid content have been modified and the deviation requirements for solid content have been deleted;

——the contaminant indicators, microbiological requirements and food additives have been deleted;

——the test methods for heavy metal content and microbiological indicators have been deleted;

——the requirements of “defective” have been deleted;

——the labeling, packaging, transportation and storage requirements have been modified.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing body of this document shall not be held responsible for identifying any or all such patent rights.

This document was prepared by National Technical Committee 64 on Food Industry of Standardization Administration of China (SAC/TC 64).

The previous editions of GB/T 24403 are as follows:

——GB/T 24403-2009;

——This is the first revised edition.

General quality requirements for canned tuna

1 Scope

This document defines the terms and definitions of canned tuna, specifies the requirements for raw and auxiliary materials, sensory requirements, physicochemical indicators, *etc.*, of canned tuna, describes the corresponding test methods, specifies the contents of inspection rules, labeling, packaging, transportation and storage, and gives the product classification and code convenient for technical regulations.

This document is applicable to the production, inspection and sales of canned tuna.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 317 *White granulated sugar*

GB/T 1535 *Soya bean oil*

GB 5009.44 *National food safety standard Determination of chloride in foods*

GB/T 5461 *Edible salt*

GB 5749 *Standards for drinking water quality*

GB/T 10786 *Analytical methods of canned food*

QB/T 1006 *Inspection rules for canned food*

QB/T 4631 *Packaging, labeling, transportation and storage for canned food*

QB/T 5504 *Method for identification of tuna species in canned fish PCR method*

3 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

3.1

canned tuna

canned food made of *Euthynnus affinis*, *Katsuwonus pelamis (syn.Eutynnus pelamis)* and other tuna as raw materials, added with water, edible salt, edible oil and other auxiliary materials, or processed by seasoning, smoking and other methods, and then pre-treated, canned, sealed and sterilized

3.2

solid

the lean meat part left after trimming

3.3

chunk

pieces of fish of which have dimensions of not less than 1.2cm in each direction after trimming

3.4

piece

pieces of fish most of which have dimensions of less than 1.2cm in each direction and in which the original muscle structure is retained after trimming

3.5

flake

a mixture of particles and pieces of fish naturally formed after trimming, which are not fish mince.

3.6

shredded

minced piece of fish which is ground from tuna meat by craft or machine, and does not comprise a puree

4 Product Classification and Code

4.1 Product classification

4.1.1 Classification by different tuna species

It is divided into canned *Thunnus alalunga*, canned *Thunnus albacares*, canned *Katsuwonus pelamis*, *etc*.

4.1.2 Classification by production, processing and seasoning methods

4.1.2.1 Canned tuna in oil

Canned food made of tuna or its frozen boiled fish flesh which is pretreated, and then canned, added with edible oil,with or without seasoning (such as water, salt, spices, *etc*.), sealed, sterilized and cooled.

4.1.2.2 Canned steamed tuna

Canned food made of tuna or its frozen boiled fish flesh which is pretreated, and then canned, added with water or saline water, sealed, sterilized and cooled; it can be classified into canned tuna in raw juice and canned tuna in salt water.

4.1.2.3 Canned seasoned tuna

Canned foods made of tuna or its frozen boiled fish flesh which is pretreated, and then canned, seasoned (spiced or braised, added with spicy flavor, fermented soybeans, eggplant juice and other ingredients), sealed, sterilized and cooled, such as canned spiced tuna, canned braised tuna, canned spicy tuna, canned tuna in fermented soybeans, canned tuna in eggplant juice, *etc*.

4.1.2.4 Canned smoked tuna

Canned food made of tuna or its frozen boiled fish flesh which is pretreated, and then smoked, canned, seasoned, sealed, sterilized and cooled.

4.1.2.5 Canned tuna with assorted vegetables

Canned food made of tuna or its frozen boiled fish flesh which is pretreated, canned by mixing tuna meat (accounting for the highest proportion in solid content) with vegetables (such as two or more kinds of carrots, potatoes, green beans, corn, *etc*.), seasoned, sealed, sterilized and cooled.

4.2 Product code

The product can be coded as specified in GB/T 41900 based on actual needs.

5 Requirements

5.1 Raw and auxiliary materials

5.1.1 Tuna

Fresh and well-frozen *Euthynnus affinis*, *Katsuwonus pelamis (syn.Eutynnus pelamis)* and other tuna or their frozen boiled fish flesh, compact in tissue, shall be used. Deteriorated tuna shall not be used. See Annex A for varieties of tuna raw materials.

5.1.2 Frozen boiled tuna flesh

Tuna flesh made of fresh and well-frozen tuna raw materials shall be used and packaged in food packaging bags and quick-frozen well.

5.1.3 Edible oil

Shall comply with the requirements in GB/T 1535 and other relevant standards.

5.1.4 Edible salt

Shall comply with the requirements in GB/T 5461.

5.1.5 White granulated sugar

Shall comply with the requirements in GB/T 317.

5.1.6 Water

Shall comply with the requirements in of GB 5749.

5.1.7 Other raw and auxiliary materials

Shall comply with the requirements of corresponding standards.

5.2 Sensory requirements

Sensory requirements shall comply with the provisions in Table 1.

Table 1 Sensory requirements

Items	Requirements
Color	With the proper color of canned tuna products
Taste and odor	With the proper taste and odor of canned tuna products, without peculiar smell
Structural state	Chunk and solid: compact in texture, a small amount of flakes are allowed. Piece, flake and shredded: uniform in shape, do not comprise a paste and puree. Solid: the proportion of free flakes or chunks shall not exceed 18% of solid content. Chunk: the proportion of pieces of flesh of which the dimensions are less than 1.2 cm shall not exceed 30% of solid content. Piece: the proportion of pieces of flesh of which the dimensions are less than 1.2 cm shall exceed 30% of solid content
Impurity	Fish skin, blood flesh, small fishbone, *etc.*, contained in the raw fish itself may be allowed; without foreign impurities visible to normal vision

5.3 Physicochemical indicators

Physicochemical indicators shall comply with the provisions in Table 2.

Table 2 Physicochemical indicators

Items	Requirements				
	Canned tuna in	Canned	Canned	Canned smoked	Canned tuna with

		oil	steamed tuna	seasoned tuna	tuna	assorted vegetables
Solid content, %	≥	60	50	55	60	60
Sodium chloride content, %	≤	3.5				
Net content		It shall comply with relevant standards and regulations, and the average net content of each batch of products shall be not lower than the labeled value				
Authenticity		The variety of tuna shall be consistent with the labeled variety				

6 Test Methods

6.1 Sensory requirements

As specified in GB/T 10786.

6.2 Physicochemical indicators

6.2.1 Solid content

As specified in GB/T 10786.

6.2.2 Sodium chloride content

As specified in GB 5009.44; the conversion coefficient of sodium chloride content (as NaCl) and chloride content (as Cl^-) in the product is 1.65.

6.2.3 Net content

As specified in GB/T 10786.

6.2.4 Tuna species

Thunnus alalunga, *Thunnus obesus*, *Thunnus tonggol*, *Katsuwonus pelamis (syn.Eutynnus pelamis)*, *Sarda orientalis*, *Euthynnus affinis*, *Auxis rochei*, *Auxis thazard* shall be tested according to the method specified in QB/T 5504.

7 Inspection Rules

Inspection rules shall comply with the provisions in QB/T 1006. Sensory requirements, solid content, sodium chloride content and net content are delivery inspection items.

8 Labeling, Packaging, Transportation and Storage

They shall comply with relevant provisions in QB/T 4631. The species and shape of tuna raw materials shall be marked. Products containing more than one tuna flesh variety shall be marked with the mixed tuna raw material species. The label shall indicate “Please use this product as soon as possible after opening”.

Annex

(Informative)

Species of tuna raw materials

Common tuna species in Table A.1 can be used for canned food processing.

Table A.1 Species of tuna raw materials

Category	Latin name
长鳍金枪鱼	*Thunnus alalunga*
黄鳍金枪鱼	*Thunnus albacares*
黑鳍金枪鱼	*Thunnus atlanticus*
大眼金枪鱼	*Thunnus obesus*
蓝鳍金枪鱼	*Thunnus maccoyii*
金枪鱼	*Thunnus thynnus*
青干金枪鱼	*Thunnus tonggol*
鲔	*Euthynnus affinis*
小鲔	*Euthynnus alletteratus*
黑鲔	*Euthynnus lineatus*
鲣	*Katsuwonus pelamis (syn.Eutynnus pelamis)*
智利狐鲣	*Sarda chiliensis*
东方狐鲣	*Sarda orientalis*
狐鲣	*Sarda sarda*
圆舵鲣	*Auxis rochei*
扁舵鲣(炸弹鱼)	*Auxis thazard*

Bibliograpy

[1] GB/T 41900 *Code of canned food*