

GB

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

GB 10136-2015

**National Food Safety Standard -
Aquatic Products of Animal Origin**

食品安全国家标准 动物性水产制品

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Foreword

This Standard replaces GB 10132-2005 “Hygienic standard for aquatic products”, GB 10136-2005 “Hygienic standard for salt liquor-saturated aquatic products of animal origin”, GB 10138-2005 “Hygienic standard for salted fish” and GB 10144-2005 “Hygienic standard for dried aquatic products of animal origin”.

The main differences between this Standard and the standard mentioned above are as follows:

- modified the standard’s name as “National Food Safety Standard Aquatic Products of Animal Origin”;
- modified the scope;
- added the terms and definitions;
- modified the physical and chemical indicators;
- added the pesticide residue limits and veterinary drug residue limits;
- modified the microbial indicators;
- modified the parasitic cyst indicators;
- modified the annex.

National Food Safety Standard - Aquatic Products of Animal Origin

1 Scope

This Standard applies to aquatic products of animal origin.

2 Terms and definitions

2.1 aquatic products of animal origin

aquatic products made from fresh and frozen aquatic products of animal origin with or without excipients and processed by corresponding processes, including instant aquatic products of animal origin, pre-braking aquatic products of animal origin and other aquatic products of animal origin, excluding canned aquatic products of animal origin

2.2 instant aquatic products of animal origin

aquatic products of animal origin that can be eaten directly without further heat treatment, including instant brake aquatic products and cooked brake aquatic products

2.2.1 instant brake aquatic products

aquatic products that can be directly consumed, which are made of fresh and frozen aquatic products of animal origin and have been cleaned and processed before eating, without being heated and cooked when eating, including marinated raw aquatic products of animal origin and instant raw aquatic products of animal origin

2.2.1.1 marinated raw aquatic products of animal origin

pickled products that can be eaten directly, which use live mud snails, shellfish, freshwater crabs and fresh or frozen sea crabs, fish seeds and other animal water products as raw materials, are made by salting or pickling, drunk processing

2.2.1.2 instant raw aquatic products of animal origin

aquatic products that can be eaten directly, which use fresh, live, refrigerated and frozen fish, crustaceans, shellfish, cephalopods, etc. as raw materials, are

made by clean processing, without being salted or cooked

2.2.2 cooked brake aquatic products

aquatic products that can be eaten directly, which use fresh and frozen aquatic products of animal origin as raw materials, are made by cooking, being deep-fried, smoked, dried, etc.

2.3 pre-braking aquatic products of animal origin

products that are not directly edible, which use fresh and frozen aquatic products of animal origin as raw materials, with or without excipients, are made by being pickled, dried, prepared, starching, etc., including semi-finished products such as salted aquatic products, pre-made dried aquatic products, surimi products, frozen hanging pulp products, bread crumbs or batter-wrapped fish pieces and fish fillets, excluding raw aquatic products after being cleaned (cut or shelled)

2.3.1 salted fish

salted aquatic products made from fresh and frozen fish, being salted and processed, which are not directly edible

2.3.2 prefabricated aquatic dried products

dried aquatic products that are not directly edible, which use fresh and frozen aquatic products of animal origin as raw materials, with or without excipients, are made by drying process

3 Technical requirements

3.1 Requirements for raw material

3.1.1 Raw material shall comply with the provisions of GB 2733.

3.1.2 Excipients shall comply with the corresponding food standards and relevant regulations.

3.2 Sensory requirements

Sensory requirements shall comply with the provisions of Table 1.

Table 1 -- Sensory requirements

Item	Requirements	Inspection method
Color	With the color that the product shall have	Take an appropriate amount of the sample on a white porcelain plate

Taste, odor	With the normal taste, odor, no smell, no rancidity	and observe the color and state under natural light. Smell the odor, rinse the mouth with warm water, taste its taste.
State	With the normal shape and tissue state of the product, no foreign matter visible in normal vision, no mold, no insects	

3.3 Physical and chemical indicators

Physical and chemical indicators shall comply with the provisions of Table 2.

Table 2 -- Physical and chemical indicators

Item	Indicator	Inspection method
Peroxide value (by fat) / (g/100g)		
Salted fish (Chinese herring, Spanish mackerel, salmon) ≤	4.0	GB 5009.227
Salted fish (excluding Chinese herring, Spanish mackerel, salmon) ≤	2.5	
Prefabricated aquatic products ≤	0.6	
Histamine / (mg/100g)		
Salted fish (high histamine fish ^a) ≤	40	GB/T 5009.208
Salted fish (excluding high histamine fish) ≤	20	
Volatile base nitrogen / (mg/100g)		
Marinated raw aquatic products of animal origin ≤	25	GB 5009.228
Pre-brake aquatic products of animal origin (excluding dry and salted products) ≤	30	
^a High histamine fish: referring to matreel, Jack fish, saurel, mackerels, striped tuna, tuna, saury, Spanish mackerel, mackerel fish, sardine and other vatica mangachapoi red meat fish.		

3.4 Contaminant limits

Contaminant limits shall comply with the provisions of GB 2762.

3.5 Pesticide residue limits and veterinary drug residue limits

3.5.1 Pesticide residue limits shall comply with the provisions of GB 2763.

3.5.2 Veterinary drug residue limits shall comply with relevant national regulations and announcements.

3.6 Microbial limits

3.6.1 Pathogenic bacteria limits of cooked brake aquatic products and instant brake aquatic products of animal origin shall comply with the provisions of GB 29921 on cooked aquatic products and instant raw aquatic products, respectively.

3.6.2 The microbial limits of instant aquatic products of animal origin shall also comply with the requirements of Table 3.

Table 3 -- Microbial limits

Item	Sampling plan ^a and limits				Inspection method
	n	c	m	M	
Total number of colonies / (CFU/g)	5	2	5×10 ⁴	10 ⁵	GB 4789.2
Coliform group / (CFU/g)	5	2	10	10 ²	GB 4789.3 plate counting method
a Sample's sampling and processing are according to GB 4789.1.					

3.7 Parasite indicators

Parasite indicators of aquatic products of animal origin shall comply with the provisions of Table 4.

Table 4 -- Parasite indicators

Item	Indicator	Inspection method
Sphincter	Must not be detected	See Annex A
Nematode larva	Must not be detected	
Locust mites	Must not be detected	

3.8 Food additives

The use of food additives shall comply with the provisions of GB 2760.

4 Other

4.1 Marks

Product marks shall comply with the provisions of GB 7718. Indicate the edible methods.

4.2 Storage

The products shall be stored at the temperature specified. Frozen aquatic products shall be kept below -18°C.

Annex A

Method for testing sphincter, nematode larva, locust mites in instant brake aquatic products

A.1 Visual inspection

Large-sized insects such as anisakis larvae, broad-striped locust, can be directly inspected by the naked eyes after the muscles and internal organs are torn open. Perform identification by microscopy if necessary.

A.2 Microscopic examination

A.2.1 Reagents

Artificial digestive juice: take 5g of pepsin, dissolve in 900mL of distilled water, add 7mL of concentrated hydrochloric acid, then add water till 1000mL; completely mix, place for 15min for use.

A.2.2 Apparatus and equipment

A.2.2.1 Microscope (multiple: 10×10).

A.2.2.2 Water bath or incubator (37°C).

A.2.2.3 Tissue masher.

A.2.3 Specimen preparation

Take appropriate amount of muscle to beat with tissue masher (low speed, sample smashing). Set in an Erlenmeyer, add artificial digestive juice in a ratio of 1:10. Stir well. Place in a 37°C water bath or incubator for 4h~5h so as to make the muscles fully digested. Absorb supernatant. Add an appropriate amount of distilled water. Conduct precipitation after stirring for 20min~30min. Then absorb supernatant. Rinse several times until the supernatant is clear. Perform precipitation for use.

A.2.4 Inspection

Take precipitate processed in A.2.3. Dilute with distilled water under the microscope to observe the parasite.

A.3 Result report

When parasites are found by naked eye and microscopic examination, it shall be reported as parasite is detected. And indicate the type of parasite. When parasites are not found by naked eye and microscopic examination, it shall be

reported as parasite is not detected.
