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

GB/T 18108-2024

Replacing GB/T 18108-2019

General principle of fresh marine fish

鲜海水鱼通则

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4 Requirements

4.1 The water used in production shall be drinking water or clean seawater. Drinking water shall comply with GB 5749; clean seawater shall meet the microbiological requirements of GB 5749 and contain no foreign matter.

4.2 The sensory requirements shall comply with Table 1, which sets requirements at two grades, superior and qualified, for seven items. Appearance: for superior grade, the body of the fish is stiff, whole and undamaged, the colour bright and the markings clear, and in scaled fish the scales lie close to the body and are not shed; for qualified grade, the body is softer and essentially whole, the colour duller and the markings less clear, and in scaled fish the scales are loosely attached to the body or partly shed. Eyes: for superior grade, the eyeballs are full and the cornea clear and bright; for qualified grade, the eyeballs are flat or slightly sunken and the cornea slightly cloudy. Gills: for superior grade, the gill filaments are

distinct and bright red, with a small amount of transparent mucus; for qualified grade, the gill filaments are slightly cloudy, pink to brown, covered with mucus that is slightly turbid. Muscle: for superior grade, the muscle tissue is compact and elastic and the cut surface glossy; for qualified grade, the muscle tissue is fairly compact and elastic. Odour: for superior grade, the odour is that characteristic of marine fish; for qualified grade, a slight off-odour of the gill filaments is allowed but there shall be no putrid or ammoniacal smell. Foreign matter: no extraneous foreign matter, and gutted fish shall have no viscera left in the abdomen. Cooked quality: for superior grade, the characteristic fresh taste of marine fish, muscle tissue compact and elastic to the mouth and a delicious flavour; for qualified grade, a fairly normal odour, muscle tissue rather soft to the mouth and a slightly less fresh flavour.

4.3 The physico-chemical indicators shall comply with Table 2, expressed in milligrams per hundred grams: volatile basic nitrogen not more than 15 for superior grade and not more than 30 for qualified grade.

5 Test methods

5.1.1 For the routine examination, the sample is placed in a white enamel tray in a well-lit place free from off-odours and the appearance, eyes, gills, muscle, odour and foreign matter are examined item by item as required by 4.2. When the odour is assessed, the body of the fish is cut open at several places with scissors or a knife and the odour is smelled. If the sample has a marked off-odour that makes it unfit for consumption, the cooking test shall not be carried out.

5.1.2 For the cooking test, about 100 g of fish flesh is washed and cut into cubes of 2 cm to 3 cm on a side for large fish, or into pieces for small fish. The sample is cooked until its internal temperature reaches 65 °C to 70 °C. The cooking time varies with the size of the product and the temperature used and shall be determined from a preliminary test; the sample shall not be overcooked. Any one of the following methods may be used, steaming being the referee method, and the wrapping is opened after cooking to examine the cooked quality: steaming, in which the sample is wrapped in aluminium foil, placed on the rack of a steamer and heated with steam; boiling in a water bath, in which the sample is sealed in a boilable film bag and heated in boiling water; baking, in which the sample is wrapped in aluminium foil and laid evenly on a flat pan and heated; and microwave heating, in which the sample is wrapped in food-grade plastic film or a plastic bag, placed in a container suitable for microwave heating and heated in a microwave oven.

5.2 Volatile basic nitrogen is determined in accordance with GB 5009.228.

6 Inspection rules

6.1 For captured marine fish, fish from the same source form one inspection batch; for

farmed marine fish, fish from the same pond or net cage, or from the same farm under essentially the same farming conditions, form one inspection batch. Sampling is by batch number.

6.2 Sampling follows GB/T 30891.

6.3 Where all the inspection items meet the requirements of the declared grade, the quality grade of the batch is judged to comply with the corresponding grade of the document. Where an inspection item fails to meet the requirements of the declared grade, a double quantity of sample shall be taken again from the same batch and re-examined, the re-examination result governing; if an item is still non-conforming, the batch is judged not to comply with the corresponding grade of the document.

7 Labelling, packaging, transport and storage

7.1 Labelling shall comply with SC/T 3035. The species name of the fish, the grade, the place of origin, the name of the producer or seller, the source, whether captured or farmed, and the date of production shall be declared. Products under a traceability scheme shall carry a traceability mark.

7.2 Packaging shall comply with SC/T 3035. Boxes should not be overfilled with fresh fish, so that the fish are not crushed; alternate layers of ice and fish with a top layer of ice are preferred, keeping the fish between 0 °C and 4 °C.

7.3 The means of transport shall be clean and free from off-odours and shall not come into contact with corrosive or harmful substances. During transport the product shall be protected from sunlight, insect pests, contamination by harmful substances and other damage, and crushing and impact shall be avoided. The temperature inside the body of the vehicle shall not exceed 10 °C for chilled products during transport.

7.4 The product shall be stored in a cool place and protected from sunlight, insect pests, contamination by harmful substances and other damage. In chilled storage the product temperature shall be kept between 0 °C and 5 °C.