



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

GB 4789.20-2024

**National food safety standard - Food Microbiological Inspection
- Sampling and Sample Processing of Aquatic Products and
Their Products**

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1 Scope

This Standard specifies the sampling and sample treatment methods for aquatic products and their products.

This Standard is applicable to the sampling and sample treatment of aquatic products and their products.

2.1 Sampling Tools

The sampling tools shall be made of stainless steel or other materials of appropriate strength, with smooth surfaces, no gaps, and rounded corners. The sampling tools shall be cleaned and sterilized and kept dry before use. The sampling tools include stirring utensils, sampling spoons, spoons, knives, sampling drills, scissors and tweezers, etc.

2.2 Sample Containers

The material (such as. glass, stainless steel and plastic, etc.) and structure of the sample containers shall be able to thoroughly ensure the original state of the sample. Containers and lids shall be clean, sterile and dry. The sample containers shall be of sufficient volume, so that the sample can be thoroughly mixed before inspection. The sample containers include sampling bags, sampling tubes and sampling bottles, etc.

2.3 Other Supplies

Include alcohol lamps, thermometers, aluminum foils, sealing films, markers and sampling registration forms, etc.

3.1 Sampling Principle and Sampling Scheme

The sampling principle and sampling scheme shall comply with the stipulations of GB 4789.1.

The number of sampling pieces n shall comply with the requirements of relevant food safety standards. The sampling size of each sample shall not be less than 5 times the samples of the inspection organization or be determined in accordance with the purpose of inspection. The sampling requirements for a food sample are specified as follows.

The sampling of bulk aquatic products and their products shall adopt aseptic operation, and the appropriate sampling method and sampling quantity shall be determined in accordance with the type of products and the purpose of inspection. Except for some large fish and marine mammals, only parts of them can be cut off as samples. In general, complete individuals shall be collected, and samples shall be taken from certain parts in accordance with the requirements of Chapter 4 when they are to be inspected.

3.2.1 For solid or semi-solid aquatic products and their products individually packaged and less

than or equal to 1,000 g, or liquid aquatic products and their products less than or equal to 1,000 mL, take individual packages in the same batch.

3.2.2 For solid or semi-solid aquatic products and their products individually packaged and

more than 1,000 g, they may be collected in individual packages, or use sterile sampling tools to take appropriate amounts of samples respectively from different parts of the same package and put them into the same sterile sampling container as a sample. For liquid aquatic products and their products individually packaged and larger than 1,000 mL, they may be collected in individual packages, or before sampling, shake or use a sterile rod to stir the liquid to make it homogeneous, then, take an appropriate amount of sample, put it into the same sterile sampling container as a sample.

3.3.1 When it is impossible to collect individual samples of large-sized aquatic products, an

appropriate amount of sample shall be taken respectively from no less than 5 different parts in a sterile operation manner, then, place them into the same sterile sampling container as a food sample.

3.3.2 When judging the quality of a batch of aquatic products, multiple food samples shall be

collected for inspection.

3.3.3 For non-uniform / multiple types of mixed aquatic products, during sampling, all

components shall be sampled in accordance with the proportion of each component in the initial product.

3.4 Storage and Transportation of Samples

Comply with the stipulations of GB 4789.1.

and cut the abdominal segments into pieces. Take 25 g of mixed sample of the branchial bars and abdominal segments that were cut into pieces, put it into the corresponding 225 mL of enrichment solution, and homogenize it for 1 min ~ 2 min.

4.2.2.1.3 Small-sized shrimps do not need to be shelled. Directly cut them into pieces, then, weigh-take 25 g of the sample and put into 225 mL of sterile solution containing 0.85% NaCl (for seafood, 3.5% ~ 4.0% NaCl solution should be used), or the corresponding 225 mL of enrichment solution, and homogenize it for 1 min ~ 2 min.

4.2.2.2.1 When the purpose is to inspect for hygienic indicator bacteria, the parts where the test

samples are taken are the chest muscles. Rinse the crab body under sterile water, peel off the shell cover and belly navel, then, remove the branchial bars, re-place and rinse it under sterile water. Use 75% alcohol cotton balls to wipe the front and rear outer walls and place it on a sterilization tray to dry. Then, use sterile scissors to cut it into two pieces---left and right, and use both hands to squeeze out the chest muscles of a piece of crab body (use fingers to squeeze from the heel end to the cut end). Weigh-take 25 g of sample and put into 225 mL of solution containing 0.85% NaCl (for seafood, 3.5% ~ 4.0% NaCl solution should be used), and homogenize it for 1 min ~ 2 min.

4.2.2.2.2 When the purpose is to inspect for pathogenic bacteria, the parts where the test samples

are taken are the back, belly umbilicus and branchial bars. Rinse the crab body under sterile water, peel off the shell cover, use sterile scissors to cut out 25 g of mixed sample from the back, belly umbilicus and branchial bars, and put it into the corresponding 225 mL enrichment solution, and homogenize it for 1 min ~ 2 min.

4.2.2.2.3 Small-sized crabs do not need to be shelled. Directly cut them into pieces, then, weigh-

take 25 g of sample and put into 225 mL of solution containing 0.85% NaCl (for seafood, 3.5% ~ 4.0% NaCl solution should be used), or the corresponding 225 mL of enrichment solution, and homogenize it for 1 min ~ 2 min.

4.2.2.3 Other crustaceans

When the purpose is to inspect for hygienic indicator bacteria, the parts where the test samples are taken are the edible part. When the purpose is to inspect for pathogenic bacteria, the parts where the test samples are taken are the parotid glands, digestive glands and edible parts. For the operation steps, refer to 4.2.2.1 and 4.2.2.2.

4.2.3.1 When the purpose is to inspect for hygienic indicator bacteria, the parts where the test

samples are taken are the back muscles or tentacles. Use sterile tweezers and sterile scissors to remove the epidermis and suckers, take 25 g of the back muscles or tentacles, put it into 225 mL solution containing 3.5% ~ 4.0% NaCl, and homogenize it for 1 min ~ 2 min.

4.2.3.2 When the purpose is to inspect for pathogenic bacteria, the parts where the test samples

are taken are the epidermis, suckers, back muscles, tentacles and gastrointestinal and digestive tract. Take 25 g of mixed sample of epidermis, suckers, back muscles, tentacles and gastrointestinal and digestive tract, put it into the corresponding 225 mL of enrichment solution, and homogenize it for 1 min ~ 2 min.

4.2.3.3 For small-sized cephalopods, directly cut them into pieces, then, weigh-take 25 g of

sample and put it into 225 mL solution containing 3.5% ~ 4.0% NaCl or the corresponding 225 mL enrichment solution, and homogenize it for 1 min ~ 2 min.

4.2.4.1 When the purpose is to inspect for hygienic indicator bacteria, the parts where the test

samples are taken are the head and feet. Use sterile water to rinse the shells, use 75% alcohol to wipe the surface and place on a sterilization tray to dry. Use sterile tweezers to remove the contents (if the contents cannot be directly removed, a sterile hammer can be used to crack the shells). Use sterile tweezers and sterile scissors to remove the visceral sac, take 25 g of the head and feet, and put into 225 mL of solution containing 0.85% NaCl (for seafood, 3.5% ~ 4.0% NaCl solution should be used), and homogenize it for 1 min ~ 2 min.

4.2.4.2 When the purpose is to inspect for pathogenic bacteria, the parts where the test samples

are taken are the head, feet and visceral sac. Use sterile water to rinse the shells, use 75% alcohol to wipe the surface and place on a sterilization tray to dry. Use sterile tweezers to remove the contents (if the contents cannot be directly removed, a sterile hammer can be