

巴西水產品生產、加工及衛生檢驗規定

摘譯自巴西農業與糧食供應部動物源產品檢驗局技術規範部「動物源產品工業及衛生檢查規範」

ı 魚貝類產品廠場

魚貝類產品廠場分類如下：

1. 魚貝類倉庫：為廠場具有足以接收、處理、冷藏、運銷及商品化之設備。若有附加食品加工設備，其設備應符合魚貝類產品加工廠之規定，並能徹底利用不可食用的副產品。
2. 魚貝類產品加工廠：為廠場具有足以接收和進行各種加工及徹底利用不可食用的副產品之設備和設施。

The establishments of fish, shellfish and their products are classified as follows:

1 ı fish and shellfish warehouses;

2 ı processed fish and shellfish products plants;

ı 1 ı ıfish and shellfish warehouseı is the establishment that has adequate facilities for the reception, handling, refrigeration, distribution and commercialization of fish and shellfish. It may have annexed facilities for processing and, in such case, it shall meet the requirements set for fish and shellfish processed products plants and have available equipment for a thorough utilization of inedible by-products.

ı 2 ı ıprocessed fish and shellfish products plantı that has adequate facilities and equipment for the reception and processing of fish and shellfish by any means, thoroughly utilizing inedible by-products.

ı 肉類產品工業及衛生檢查

ı 水產

第 438 條. 「水產」包含可供人食用的魚類、甲殼類、貝類、兩棲類、龜類及淡水和海洋哺乳動物，也包含藻類和其他水生植物和動物。

第 439 條. 未經加工處理的水產如：

1. 生鮮水產：指運送過程未經保存處理，也未冷藏之水產。
2. 冰藏水產：指以-0.5oC到-2oC的溫度包冰保存之水產。
3. 冷凍水產：指經-25oC以下低溫冷凍處理之水產。

Article 439. Unprocessed fish may be:

1. Fresh;
2. Chilled; and
3. Frozen.

Paragraph 1. ıFresh fishı shall mean fish delivered for consumption without undergoing any preservation process, save for the action of ice.

Paragraph 2. "Chilled fish" shall mean fish packed in ice and maintained at a temperature between -0.5°C and -2°C.

Paragraph 3. "Frozen fish" shall mean fish that has undergone appropriate freezing processes at temperatures no higher than -25°C.

第 440 條. 經冷凍的水產應保存於-15°C的冰櫃中。一旦退冰不得再放回冰櫃。

Article 440. After being frozen, fish must be kept in a freezer at -15°C.

Sole paragraph. Once thawed, frozen fish cannot be returned to freezer.

第 441 條. 依據動物源產品檢驗局 (DIPOA) 規定, 所有水產均必須去除內臟。

Article 441. At DIPOA's discretion, evisceration of fish may be obligatory, whatever the form of its presentation for consumption.

第 442 條. 供食用之新鮮水產的官能特性如下：

A. 魚類

1. 體表平滑、乾淨並有金屬光澤
2. 眼球透明、鮮豔且突出佔滿整個眼眶
3. 鰓呈粉紅或紅色、濕潤有光澤, 具有天然輕微之氣味
4. 腹部飽滿結實, 按壓不會留下指痕
5. 鱗片有光澤且緊貼表皮, 鰭輕微抵抗地擺動
6. 肌肉結實有彈性, 不同魚種各有其典型的顏色
7. 內臟完整無缺未受損
8. 肛門緊閉
9. 海生植物的特殊氣味

Article 442. Fresh fish for consumption must have the following organoleptic characteristics;

A. FISH

1. Smooth, clean body surface, with a relative metallic shine;
2. Transparent, brilliant, and salient eyes fully occupying the orbits;
3. Pink or red, moist and shiny gills with a natural, typical mild smell;
4. Rounded, firm belly that keeps no lasting finger impression;
5. Shiny scales adhering closely to the skin, and fins resisting slightly to being moved;
6. Firm, elastic flesh, with typical color for the species;
7. Intact, perfectly differentiated viscera; viscera
8. Closed anus; and
9. Specific smell evocative of sea plants.

B. 甲殼類

1. 外觀濕潤有光澤
2. 形體自然捲曲、結實且堅硬, 肢體抵抗地擺動
3. 甲殼緊貼著形體
4. 典型的顏色, 無染色

5. 生氣勃勃且眼珠分離
6. 典型輕微的氣味

B. CRUSTACEANS

- a. Shiny, moist overall aspect;
- b. Naturally curved, rigid body and firm, resistant appendages;
- c. Carapace adhering closely to the body;
- d. Typical color for the species, with no foreign pigmentation;
- e. Lively, detached eyes; and
- f. Typical mild smell.

C. 軟體動物

(a) 雙殼貝類

1. 販售時必須仍活著，雙殼緊閉且殼內的水為透明無色
2. 舒適明顯的氣味
3. 濕潤的貝肉緊貼著外殼，外觀多孔，牡蠣呈淺灰色，珠蚌呈淡黃色

(b) 頭足類 (章魚、烏賊)

1. 表皮平滑濕潤
2. 眼珠生氣勃勃且突出眼眶
3. 肌肉結實有彈性
4. 顏色正常，無染色
5. 典型的氣味

C. MOLUSKS

(a) Bivalves:

1. Must be displayed for sale still alive, with closed valves and colorless, limpid water in the shells;
2. Pleasant, pronounced smell; and
3. Moist flesh firmly adhering to the shell, a spongy aspect, light gray in oysters and yellowish in mussels.

(b) Cephalopods (octopus, squid):

1. Smooth, moist skin;
2. Lively eyes, protruding from the orbits;
3. Firm, elastic flesh;
4. No pigmentation foreign to the species;
5. Smell typical for the species.

以下特性亦可擴大適用於其他供人食用之水產品

Sole paragraph. The characteristics listed hereunder shall be extended, if applicable, to other fishing products used for human consumption.

第 443 條. 辨識新鮮水產的物理和化學特性如下：

1. 硫化氣體和吲哚呈現陰性反應，除甲殼動物外，吲哚最大限量為 4g/100g。
2. 外部肌肉 pH 值 < 6.8，內部肌肉 pH 值 < 6.5。
3. 總揮發氣體 < 0.03 g/100g 氮氣。
4. 第三級揮發氣體 < 0.004g/100g 氮氣。

Article 443. The physical and chemical features for identifying fresh fish shall be as follows:

1. Negative reaction to sulphidric gas and indol, save for crustaceans, in which the maximum indol limit shall be 4 g per 100 g;
2. External flesh pH less than 6.8 and internal flesh pH less than 6.5 in fish;
3. Total volatile bases less than 0.030 g per 100 g nitrogen; and
4. Tertiary volatile bases less than 0.004 g per 100 g nitrogen.

第 444 條. 生鮮水產基準亦適用於評估冷藏和冷凍水產之衛生條件。

Article 444. Assessment of the sanitary conditions of chilled and frozen fish shall be done pursuant to the norms established for fresh fish, as applicable.

第 445 條. 以下情形之水產，判定為不適合食用：

1. 外觀令人反感、殘缺不全、受損或變形
2. 有不尋常的顏色、氣味或口感
3. 有可能危害消費者健康之損傷或微生物疾病
4. 肌肉大量寄生蟲感染，不論是否危害消費者健康
5. 使用未經 DIPOA 核准的抗菌劑和防腐劑
6. 來自有毒或受污染水域之水產
7. 違反現行法規或將已死亡之水產當成捕撈過程中死亡之水產
8. 保存狀態不佳
9. 不符合生鮮水產的物理和化學限值

發現上述狀況之水產，應判定為不適用，並用以製造非食用之副產品。

Article 445. Fish shall be considered unfit for consumption under the following conditions:

1. It has a repugnant, mutilated, traumatized, or deformed aspect;
2. It has unusual color, smell, or taste;
3. It has lesions or microbial diseases susceptible of harming consumers; health;
4. It has massive muscular infestation of parasites, whether harmful or not to consumers; health;
5. It has been treated with antiseptics or preservatives not approved by DIPOA;
6. It has come from contaminated or polluted waters;
7. It has been caught in violation of current legislation or already dead, save if it died during fishing operations;
8. It is in poor state of conservation; and
9. It does not meet the physical and chemical limits established for fresh fish.

Sole paragraph. Fish found to be in the conditions referred to above should be condemned and used to make nonedible byproducts.

i 水產品及其副產品

第 446 條. 水產品及其副產品，無論可食用與否，都是以水產之整體或部份來製造。

Article 446. Fish products and byproducts, whether edible or not, are made with whole fish or parts thereof.

第 447 條. 唯有通過衛生檢查之廠場可製造食用水產品。

1. 廠內任何用於製造水產品之其他原物料也應接受衛生檢查。
2. 檢查應包含鹵水、魚漿、油脂和其他製造水產品使用之添加物，並防止在不當條件下使用。

Article 447. Fish received at industrial establishments may be used to make edible products only after being subjected to sanitary inspection.

Paragraph 1. Any other raw material received at an establishment to be used for making fish products shall also be subjected to sanitary inspection.

Paragraph 2. Inspection shall also check the condition of brines, pastes, oils, and other ingredients used in making fish products, and prevent the use of those items that are not in satisfactory condition.

第 448 條. 依製備過程，水產品可分為(a)醃漬品和(b)醃製品。

不論是加工成醃漬品或醃製品均應清洗乾淨並取出內臟。

Article 448. According to the preparation process, fish products are classified as (a) preserved products and (b) cured products.

Sole paragraph. The cleaning and evisceration of fish used in the preparation of preserved or cured products destined for human consumption shall be obligatory, whatever their processing form.

第 449 條. 「醃漬水產品」是指將水產浸漬在密封殺菌的容器內，包含以下幾種方式：

1. 鹽漬水產：指水產品以淡鹵水浸漬，添加或不添加其他香料。
2. 油漬水產：指水產品以橄欖油或其他食用油浸漬，添加或不添加其他香料。
 - g. 單獨使用橄欖油或其他食用油或與其它添加物混合，油酸酸度不得超過 2%。
 - h. 根據 DIPOA 規定，使用一種或一種以上食用油醃漬水產品，外標籤必須加註「油漬或食用油醃漬」。
 - i. 若標示為「橄欖油醃漬」，則僅限使用橄欖油醃漬水產品。

Article 449. Preserved fish is the product made with whole fish and packed in sealed, sterilized containers, and may include the following kinds, in addition to others referred to hereunder:

1. Plain;
2. In olive oil or other edible oils;
3. In brine
4. In white wine; or
5. In a sauce

Paragraph 1. "Plain" fish shall mean a product packed in weak brine, with or without the addition of aromatic substances;

Paragraph 2. "Fish in olive oil or other edible oils" shall mean a product packed in olive oil or other edible oils, with or without the addition of aromatic substances.

1. Olive oil or other edible oil used alone or mixed with other ingredients must not exceed 2 percent oleic acid acidity;
2. At DIPOA's discretion, the use of just one or more than one edible oil in making preserved fish may be tolerated and must include the expression "packed in oil or edible oils" on the label, as the case may be; and
3. The designation "in olive oil" shall be restricted to fish preserved in olive oil.

第 450 條. 醋漬水產：指水產品以醋浸漬，添加或不添加其他香料。

Article 450. "Fish in brine" shall mean a fish product packed predominantly in vinegar, with or without the addition of aromatic substances.

第 451 條. 酒漬水產：指水產品以白酒浸漬，添加或不添加其他香料。

Article 451. "Fish in white wine" shall mean a fish product packed predominantly in white wine, with or without the addition of aromatic substances.

第 452 條. 醬漬水產：指水產品以水和脂肪為基質的醬汁浸漬。醬汁的主要原料應佔總原料的 30% 以上。

Article 452. "Fish in sauce" shall mean a fish product packed in a sauce based on a water or fat medium.

Sole paragraph. In a sauce's composition, the main ingredients must account for at least 30 percent of the whole.

第 453 條. 「魚漿」是指將整條魚煮熟去骨搗成糊狀之產品，添加或不添加澱粉。

1. 允許添加 10% 以下的澱粉和 18% 以下的食鹽。
2. 如澱粉或食鹽添加超過上述比例，須經 DIPOA 核准並標示於包裝上。

Article 453. "Fish paste" shall mean a product made with whole boiled and deboned fish reduced to a paste, seasoned, and with or without the addition of farinaceous substances.

Paragraph 1. The addition of up to 10 percent farinaceous substances and up to 18 percent sodium chloride shall be permitted.

Paragraph 2. Higher proportions than those referred to in the preceding paragraph may be permitted, subject to prior DIPOA authorization and to indication thereof on the label.

第 454 條. 「魚清湯」是指烹煮魚產生之液態產品，添加或不添加香料，包裝並殺菌。

1. 魚清湯添加蔬菜或義大利麵則稱為「魚湯」。
2. 魚清湯添加動物膠質則稱為「魚凍」。

3. 魚清湯濃縮成黏稠狀則稱為「魚精」。

Article 454. Fish broth shall mean the liquid product from cooked fish, with or without the addition of aromatic substances, packed and sterilized.

Paragraph 1. Fish broth to which vegetables or pasta have been added shall be designated as fish soup.

Paragraph 2. Fish broth to which gelatin has been added shall be designated as fish aspic.

Paragraph 3. Fish broth concentrated to a paste consistence shall be designated as fish extract.

第 455 條. 魚卵經過適當的處理，可製成魚子醬。

除適當的感官特性外，醃漬魚卵必須符合以下規格：

1. 食鹽 \leq 10%。
2. 甲醛滴定產氮 \leq 0.05 克。
3. 不與自由硫氣體產生反應。

Article 455. Fish roe, properly handled, may be used to make a preserved product of the caviar type.

Sole paragraph. In addition to having the proper organoleptic properties, preserved fish roe must meet the following specifications:

1. Contain no more than 10 percent sodium chloride;
2. Formol titrable nitrogen cannot exceed 0.05 g; and
3. No reaction to free sulphidric gas.

第 456 條. 如欲製造其他類醃漬水產品，應先取得 DIPOA 的核准。

Article 456. The making of other kinds of preserved fish products shall be permitted, subject to DIPOA's approval.

第 457 條. DIPOA 允取使用玻璃或其他材質的容器包裝醃漬水產品，條件是必須能殺菌。

Article 457. At DIPOA's discretion, the use of glass containers or containers made of other materials shall be permitted for packing preserved fish products, provided they can be sterilized.

第 458 條. 經過殺菌之水產品罐頭須通過 37oC，10 天以上之保存試驗後才可上市。

Article 458. Preserved fish products subjected to sterilization may be released for consumption only after at least ten days in a 37oC oven, under conditions to be determined under special instructions.

第 459 條. 醃漬水產品如有以下情況視為不法：

1. 以不同於標籤標示之水產製造
2. 含有與成分不同的物質
3. 含有高於法定允許量的物質

Article 459. Preserved fish products shall be considered fraudulent as follows:

1. If they have been made with a different kind of fish than the species indicated on the label;

2. If they contain substances alien to their composition; and
3. If they contain substances in higher proportions than those permitted hereunder.

第 460 條. 「保藏水產品」是指將整條魚經特殊處理之產品，主要包含下列形式：

1. 鹹水產
2. 醃製水產
3. 煙燻水產
4. 脫水水產

DIPOA 規定此類產品須包裝於密封容器中，添加或不添加水或脂肪當基質，不經殺菌。

Article 460. ;Cured fish; is the product made of a whole fish treated under special processes, including the following main types:

1. Salt fish;
2. Pressed fish;
3. Smoked fish; and
4. Dehydrated fish.

Sole paragraph. At DIPOA's discretion, these products may be packed in sealed containers, with or without the addition of a watery or fat medium, sterilization being waived.

第 461 條. 「鹹水產」是指將整隻水產烘乾或以鹵水醃製而成。

1. DIPOA 規定鹹水產為以鹽或鹵水與糖、亞硝酸鈉、硝酸鈉和調味料混合製成。
2. 浸漬於鹵水之鹹水產則稱為「鹽漬水產」。

Article 461. ;Salt fish; shall mean a product obtained through the treatment of the whole fish by dry or brine salting.

Paragraph 1. At DIPOA's discretion, salt fish may be prepared with a mixture of salt or brine containing sugar, sodium nitrite and sodium nitrate, and seasonings.

Paragraph 2. When packed in brine, the salt fish shall be denominated ;fish in brine.;

第 462 條. 「醃製水產」是指將整隻水產加食鹽醃製而成。

1. 醃製時間至少三週。
2. 除了適當的感官特性外，醃製水產含水量不得超過 45%，脂肪含量不得超過 8%。
3. 如果超過上述限制，則此產品應被煙燻或脫水。

Article 462. ;Pressed fish; shall mean the product obtained by pressing a whole fish properly cured with salt (sodium chloride).

Paragraph 1. Fish must be cured for a minimum of three weeks.

Paragraph 2. In addition to having the appropriate organoleptic properties, pressed fish must not contain over 45 percent moisture and over 8 percent fat.

Paragraph 3. If the preceding limits are exceeded, the product shall be smoked or dehydrated.

第 463 條. 「煙燻水產」是指將整隻水產先以食鹽醃製再燻製而成。

1. 煙燻可採高溫或低溫。
2. 煙燻必須以適當的烤箱，燃燒無樹脂、乾燥且堅硬的木頭燻製而成。

Article 463. jSmoked fishj shall mean the product obtained by smoking a whole fish previously cured with salt (sodium chloride).

Paragraph 1. Smoking may be hot or cold.

Paragraph 2. Smoking must be done in appropriate ovens and through the burning of nonresinous, dry, hard woods.

第 464 條. 「脫水水產」是指將整隻水產經由天然或是人工方式脫水而成，如：

1. 乾燥鹹水產
2. 乾燥水產
3. 脫水水產

若水份超過 35%，此產品應被煙燻。

Article 464. jDehydrated fishj shall mean a product obtained by natural or artificial dehydration of a whole fish, and may be:

1. Dry salt fish;
2. Dry fish; and
3. Dehydrated fish.

Sole paragraph. If its moisture content exceeds 35 percent, the fish should be smoked.

第 465 條. 「乾燥鹹水產」是指將整隻水產先以食鹽醃製再乾燥而成。

含水量不得超過 35%，礦物質殘留不得超過 25%。

Article 465. jDry salt fishj shall mean the product obtained by dehydrating the whole fish, previously cured with salt (sodium chloride).

Sole paragraph. Dry salt fish should not contain more than 35 percent moisture or more than 25 percent fixed mineral residue.

第 466 條. 「乾燥水產」是指將整隻水產適當地乾燥而製成。

含水量不得超過 12%，礦物質殘留不得超過 5.5%。

Article 466. Dry fishj shall mean the product obtained by proper drying of a whole fish.

Sole paragraph. Dry fish should not contain more than 12 percent moisture and 5.5 percent of fixed mineral residue.

第 467 條. 「脫水水產」是指將整隻水產以適當設備劇烈脫水而成。

含水量不得超過 5%，礦物質殘留不得超過 3%。

Article 467. Dehydrated fishj shall mean the product obtained by intense dehydration of the whole fish with appropriate equipment for whole fish.

Sole paragraph. Dehydrated fish should contain no more than 5 percent moisture and no more than 3 percent fixed mineral residue.

第 468 條. 「保藏水產品」如有以下情形視為腐敗：

1. 有令人不愉悅、不尋常的氣味與味道
2. 軟化、潮濕及黏糊狀
3. 某些部位的顏色不尋常
4. 有幼蟲或寄生蟲
5. 檢查員觀察到的其他變化

Article 468. Cured fish should be considered spoiled:

1. If it has unpleasant, unusual smell and taste;
2. If it has softened and is moist and sticky;
3. If it has areas of unusual color;
4. If it has larvae or parasites; and
5. If it shows other changes, in the Inspector's view.

第 469 條. 「水產香腸」是指將整隻水產經或不經醃漬、烹煮、煙燻或脫水後，灌入 DIPOA 核准之腸衣、膀胱或人工腸衣而成。

製作水產香腸也應遵守其他肉類香腸之相關規定。

Article 469. Fish sausage shall mean a product made of whole fish, cured or not, cooked or not, smoked and dehydrated or not, cased in intestine, bladder, or artificial casing approved by DIPOA.

Sole paragraph. In the preparation of fish sausage, the requirements pertaining to other meat sausages referred to hereunder shall be observed.

i 非食用之水產品

第 470 條. 「非食用之水產副產品」乃將水產殘留物加以處理利用。依名稱和規格詳述如下。

水產處理過程之殘留物和不適合食用之水產，應用以製造非食用之副產品。

Article 470. Nonedible fish byproducts shall mean any fish residue duly prepared, in accordance with the denominations and specifications hereunder.

Sole paragraph. Residues resulting from the handling of fish and condemned fish should be used to make nonedible byproducts.

第 471 條. 非食用之水產副產品包括：

1. 魚粉：乃將水產或其殘留物經蒸煮、輾壓、脫水和磨碎而成
2. 以真空方式過濾和乾燥或其他適當之方式處理皆可。
3. 經由陽光曝曬乾燥也可以，只要不造成太大的不便。
4. 魚粉分為優質和次等二級：
 - a. 優質魚粉(普遍型)：應含有蛋白質 $\geq 60\%$ 、水份 $\geq 10\%$ ，脂肪 $\leq 8\%$ 、氯化鈉 $\leq 5\%$ 之、砂礫 $\leq 3\%$ 。
 - b. 次等魚粉：應含有蛋白質 $\geq 40\%$ 、水份 $\geq 10\%$ ，脂肪 $\leq 10\%$ 、氯化鈉 $\leq 8\%$ 、砂礫 $\leq 3\%$ 。
5. 魚油：此液態副產品是將水產原料經蒸煮、離心或過濾而成。
 - a. 簡單壓榨裝瓶，或其他適當之方式皆可
 - b. 魚油應具備以下特點：

- i. 呈亮黃色或琥珀色，允許輕微混濁。
 - ii. 雜質 $\leq 1\%$ 。
 - iii. 水份 $\leq 10\%$ ，油酸酸度 $\leq 3\%$ ，不得參雜外來物質、動物油或蔬菜油。
6. 若與前項限值稍有差異，依據 DIPOA 的裁量權，有可能被允許。
 7. 魚膠：此副產品是將富含膠質的原物料(頭、皮、骨、魚鰓等)經蒸煮、濃縮而成。
 8. 魚肥：不符合魚粉規格之副產品即為魚肥
 9. 可溶性魚濃縮液：此產品是將魚油分離後之液體，經適當設備蒸發、濃縮而成。
 - a. 可溶性魚濃縮液可作為魚粉的原料或工業用途
 - b. 可溶性魚濃縮液應含有蛋白質 $\leq 30\%$ 、脂肪 $\leq 3\%$ 和水份 $\leq 10\%$ 。

第 471-A 條. 水產工廠如欲製造非食用之水產副產品，應先取得 DIPOA 核准。

第 471-B 條. 水產和水產品之檢查也應遵守本規定。

Article 471. Nonedible fish byproducts include the following:

Paragraph 1. *Fish meal* shall mean the fish byproduct obtained by steam cooking the fish or its residues, which are then properly pressed, dehydrated, and ground.

Paragraph 2. Treatment by filtering and drying under vacuum or any other appropriate process shall be permitted.

Paragraph 3. Drying by exposure to the sun shall also be permitted, provided this method does not entail major inconvenience.

Paragraph 4. For classification purposes, two types of fish meal are considered: premium and inferior.

1. Premium fish meal (common type) should contain at least 60 percent protein and no more than 10 percent moisture, no more than 8 percent fat, no more than 5 percent NaCl chlorides, and no more than 2 percent sand.
2. Inferior fish meal should contain at least 40 percent protein, and no more than 10 percent moisture, no more than 10 percent of fat, no more than 8 percent NaCl chlorides, and no more than 3 percent sand.

Paragraph 5. *Fish oil* shall mean the liquid byproduct obtained by steam cooking raw materials, followed by separation through centrifugation or filtration.

1. Simple pressing and decanting or any other appropriate process shall be permitted.
2. Fish oil must have the following characteristics:
 - (a) Light yellow or amber-yellow color; slight clouding may be tolerated;
 - (b) No more than 1 percent impurities; and
 - (c) No more than 10 percent moisture; no more than 3 percent oleic acid acidity; and no foreign substances, or other animal or vegetable oils.

Paragraph 6. At DIPOA's discretion, a slight variation of the limits set forth under the preceding paragraph may be permitted.

Paragraph 7. Fish glue shall mean the byproduct obtained from collagen-rich raw materials (head, skin, bones, swim bladder, etc.) through steam cooking or boiling, followed by proper concentration.

Paragraph 8. Fish fertilizer shall mean the byproduct that does not meet the specifications for fish meal.

Paragraph 9. Soluble fish concentrate shall mean the product obtained through evaporation and concentration, in appropriate devices, of the liquid remaining after oil separation.

1. Soluble fish concentrate may be used as a fish meal ingredient or for industrial purposes.
2. Soluble fish concentrate must contain no more than 30 percent protein, no more than 3 percent fat, and no more than 10 percent moisture.

Article 471-A. Industrial fish plants may make other nonedible fish byproducts, subject to DIPOA's approval.

Article 471-B. Inspection of fish and fish products shall be subject to the other requirements hereunder, as applicable.

第 472 條. 水產處理過程之殘留物和經官方檢查不合格之水產，應用以製造非食用之水產副產品。

Article 472. Residues resulting from the handling of fish, as well as fish condemned by Federal Inspection, should be used for making nonedible fish byproducts.

第 473 條. 非食用水產副產品之標示應符合本法規定，標籤上應註明成分。

Article 473. Nonedible fish byproducts should be labeled in accordance with the provisions hereunder; their composition should be indicated on the label.

第 474 條. 非食用水產副產品包含：用於製造動物飼料的魚粉、用於製造肥料的殘留物、魚肝油、魚膠及其他由 DIPOA 註冊登記之工廠所製造之產品。

Article 474. Nonedible fish byproducts include the following: meals destined for animal feed; residues destined for fertilizers; fish liver oil; fish glue, and any others that may be made at establishments registered with DIPOA.