

fish processing plants

Guideline for labelling and packaging requirements for smoked fish with reference to:

- Federal regulations
- Provincial regulations

Prepared by:
Food Protection Services
BC Centre for Disease Control

Contact:
604.707.2440

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BC Centre for Disease Control
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY



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Food and Drugs Act – Canadian Regulations pertaining to Packaging of Smoked Fish.

Product storage requirements.

How do I decide whether my product should be stored at room temperature, refrigerated or frozen? There are two important regulations to consider that describe storage options depending on how the product is processed and packaged: Regulation B21.025 and Regulation B27.001 of the Food and Drugs Act.

1. Vacuum packaging

If the smoked fish is to be vacuum packaged (air is excluded from the package), there are 3 packaging / processing choices:

1. for room temperature storage product must be sterilized (canned or retorted) in either traditional cans or retort pouches.
2. for refrigerated storage product must be held in modified atmosphere packaging or MAP (the industry regulation is covered in the next section)
3. for frozen storage, other (non-MAP) packaging may be used.

The federal government Food and Drugs Act links are copied below. Regulation B21.025 is specific to smoked fish and Regulation B27.001 states that low-acid foods in hermetically sealed containers must be under temperature control unless they are sterilized (i.e. canned).

B.21.025 part d) applies

<http://laws.justice.gc.ca/en/showdoc/cr/C.R.C.-c.870/bo-ga:l B-gb:l 21//en#anchorbo-ga:l B-gb:l 21>

B.21.025.No person shall sell marine and fresh water animals, or marine and fresh water animal products, that are packed in a container that has been sealed to exclude air and that are smoked or to which liquid smoke flavour or liquid smoke flavour concentrate has been added, unless

- (a) the container has been heat-processed after sealing at a temperature and for a time sufficient to destroy all spores of the species *Clostridium botulinum*;
- (b) the contents of the container contain not less than nine per cent salt, as determined by official method FO-38, *Determination of Salt in Smoked Fish*, dated March 15, 1985;
- (c) the contents of the container are customarily cooked before eating; or

(d) the contents of the container are frozen and the principal display panel of the label of the container carries the statement “Keep Frozen Prior to Use” in the same size type used for the common name of the contents of the container.

SOR/80-13, s. 10; SOR/82-566, s. 5; SOR/82-768, s. 64; SOR/89-198, s. 17; SOR/94-567, s. 4.

B.27.002 part 1 and 2 applies

<http://laws.justice.gc.ca/en/showdoc/cr/C.R.C.-c.870/bo-ga:l B-gb:l 27/en#anchorbo-ga:l B-gb:l 27>

Low-Acid Foods Packaged In Hermetically Sealed Containers B.27.002.

(1) No person shall sell a low-acid food packaged in a hermetically sealed container **unless the food is commercially sterile.**

(2) Subsection (1) does not apply in respect of a low-acid food packaged in a hermetically sealed container where

(a) the low-acid food is kept under refrigeration and the statement “Keep Refrigerated” and “Garder au froid” is carried on the principal display panel of the label of its container, as well as on the label of its shipping container; or

(b) the low-acid food is kept frozen and the statement “Keep Frozen” and “Garder congelé” is carried on the principal display panel of the label of its container, as well as on the label of its shipping container.

2. Modified Atmosphere Packaging (MAP) must be used for refrigerated fish.

The sale of fish that are smoked AND frozen are exempt from MAP.

If you wish to sell smoked cooked fish (at refrigeration temperatures) the requirements are listed below. There is no update to the Food & Drug Act with the actual MAP recommendations for smoked fish. This is found in an industry bulletin (1993). The link and text is copied below.

<http://www.inspection.gc.ca/english/fssa/labeti/retdet/bulletins/smfume.shtml>

Smoked Fish : Storage Conditions

The information below was contained in a letter issued to the trade by Fisheries and Oceans Canada in November of 1993. The contents of that letter have been reproduced here to assist **food retailers** in the manner in which they package, store and merchandise this type of product at the retail level of trade.

To Whom it May Concern

Re: Letter to Trade - Storage Conditions for Smoked Fish

The purpose of this letter is to resolve apparent confusion and to advise all firms that manufacture, distribute or **retail** smoked fish products that are sealed to exclude air of the requirements of Division B.21.025 of the Food and Drug Regulations. Packages that are sealed to exclude air include, but are not restricted to, vacuum packages, modified atmosphere pouches, plastic bags with twist closures, plastic film overwrapping, Styrofoam trays overwrapped with plastic film or any other packaging that does not permit free exchange of oxygen with all portions of the contents. Smoked fish in packages that are sealed to exclude air and without any other means of preservation **must be kept frozen.** [underlining added]

Regulation B.21.025 is designed to ensure the safety of smoked fish products distributed and sold in Canada. It was established in response to botulism food poisoning incidents resulting from temperature abuse of vacuum packaged whole smoked fish. The bacteria that caused these outbreaks was *Clostridium botulinum*, type E which is prevalent in marine environments and therefore present in many fish. This organism is of particular public health concern

because under anaerobic (oxygen free) conditions it can grow and produce toxin at refrigeration temperatures without evidence of food spoilage.

Division B.21.025 of the Food and Drug Regulations prohibit the sale of marine and fresh water animal or animal products that are smoked (or to which liquid smoke has been added) if they are packaged in a container that is sealed to exclude air unless the following conditions are met:

1. the container has been **heat processed** after sealing at the temperature and for a time sufficient to destroy all spores of the species *Clostridium botulinum*, or
2. the content of the container contain not less than **nine percent salt**, or
3. the contents of the container are customarily **cooked** before eating, or
4. the contents of the container are frozen and the principal display panel of the label of the container carries the statement "**Keep Frozen Prior to Use**" in the same size type used for the common name of the contents of the container.

In the past there has been confusion as to what constituted frozen product. For the contents of the container to be frozen, they must undergo a phase change, i.e. they must be congealed, solid or rigid because of the cold. The temperature of frozen product must be maintained constantly at less than **-18°C (0°F)** however shelf life will be enhanced if kept at **-26°C (-15°F)** or colder.

Packaging materials are now available that have adequate oxygen transfer to prevent the development of an anaerobic environment within a package. Containers or packages made of materials with an oxygen permeability equal to or greater than **2,000 cc/m²/24 hours at 24°C and 1 atmosphere** are not considered to be sealed to exclude air. These packages will be permitted for use with refrigerated product stored at **4°C or less**. Product should have a labelled **shelf life not to exceed 14 days** from the date of packaging. Processors and retailers using such sealed containers or films should have a record of the type of film used and its permeability. This should be available to inspectors at the retail level. This permeability is for a single overwrap of the film. If overwrap is double or more, data should be available to show that the minimum permeability is being met. Styrofoam trays with a single wrap are permitted if the **total permeability** of the final package meets the minimum specifications. Care should be taken to avoid stacking the packages in a manner that will inhibit the oxygen permeability.

It is expected that establishments receiving this information will take immediate action to ensure that smoked fish products comply with Division B.21.025. Regulatory agencies will continue to monitor the retail market to ensure that provisions of this regulation are in place. Products not in compliance that remain for sale in Canada will be subject to enforcement action as a means to protect the Canadian public from this health concern. Additional action against offending companies will be taken as deemed necessary.

Food and Drugs Act – Regulations pertaining to all Foods

1. Nutrition Facts Labels

There is a requirement that a nutrition facts labeling panel be included on all products for sale at retail.

This is stated in F&D Act Regulation B.01.401.

<http://laws.justice.gc.ca/en/showdoc/cr/C.R.C.-c.870/bo-ga:l B/en#anchorbo-ga:l B>

Nutrition Labeling Core Information:

B.01.401. (1) Except as otherwise provided in this section and sections B.01.402 to B.01.406 and B.01.467, the label of a prepackaged product shall carry a nutrition facts table that contains only the information set out in column 1 of the table to this section expressed using a description set out in column 2, in the unit set out in column 3 and in the manner set out in column 4.

You will need to get a sample of your product tested by a lab to supply this nutrient information: for total calories, amount of fat, amount of saturated fatty acids, amount of *trans* fatty acids, the sum of saturated fatty acids and *trans* fatty acids, amount of cholesterol, amount of sodium, amount of carbohydrate, amount of fibre, amount of sugars, amount of protein, and finally amount of vitamin A, vitamin C, calcium and iron. This requirement is interpreted in a series of guides on the CFIA website, the links are given below.

CFIA Guide to Food Labeling and Advertising

<http://www.inspection.gc.ca/english/fssa/labeti/guide/toce.shtml>

Basic Labeling Requirements – Chapter 2:

<http://www.inspection.gc.ca/english/fssa/labeti/guide/ch2e.shtml>

Nutrition Facts Table – Chapter 5

<http://www.inspection.gc.ca/english/fssa/labeti/guide/ch5e.shtml>

Fish and Fish Products – Chapter 15

<http://www.inspection.gc.ca/english/fssa/labeti/guide/ch15e.shtml>

2. CFIA should pre-approve your label

This looks a little daunting, but the CFIA actually offers a service to help you. Contact them to get final approval of your labels (product label and nutrition label).

CFIA does have the responsibility to inspect retail labeling of fish products at retail, even if the products are from a retail store. Processors can get label reviews from the CFIA. (\$87 + tax).

There should be no charge for review of labels for non-federally registered plants.

The contact information is given below:

Lower Mainland: 604-666-6038

Interior: 250-470-4895 (contact Ron Dombowsky)

Vancouver Island: 250-363-3455 (Jeff Mow 250-363-3738) or (Clair Sharp 250-363-3106)

Provincial rules for labelling under BC Fish regulation.

BC Fish Inspection Regulation B.C. Reg 12/78

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/10_12_78#section29

Note that the basic requirements are the same as in the CFIA federal regulations

Labelling — non-canned fish

- 29** (1) In the case of fish, other than canned fish, every container or the label thereon shall be correctly and legibly marked in English or French, in addition to any other language, to indicate
- (a) the common name of the fish,
 - (b) the net weight of the fish, unless
 - (i) in the case of oyster and clam meats that are not frozen, the container or label is marked with a statement of net contents in terms of fluid measure or by count,
 - (ii) in the case of oysters that are marketed in the shell, the container or label is marked with a statement of the contents in terms of bushels or pecks or by count, or
 - (iii) in any case not referred to in subparagraph (i) or (ii), the container or label states that the contents are to be weighed at the time of retail sale,
 - (c) the grade, size, class, count and moisture content
 - (i) in the case of pickled fish, with the grade, class and size of the fish,
 - (ii) in the case of boneless or semiboneless salted fish, with the grade of the fish,
 - (iii) in the case of bloaters, with the grade and count of the fish,
 - (iv) in the case of bloater fillets, with the grade of the fish, and
 - (v) in the case of salted fish, other than boneless or semiboneless salted fish, with the grade and class of the fish, the size or count of the fish and the designation for moisture content,
 - (d) the name and address of the person by whom or for whom the fish is processed or by whom it is distributed, and
 - (e) the ingredients in each container, where there is more than one ingredient therein,
 - (i) by listing them in descending order of their proportion in the container, or
 - (ii) by stating the proportion of each ingredient in the container.
- (2) In the case of oysters and clams that are marketed shucked or in the shell, each container shall meet the requirements of subsection (1) (d) and (e) and section 52.
- (3) The markings referred to in subsection (1) (a) to (e) shall be shown on the main panel of every container of fish and shall be not less than 1/8 inch in height.
- (4) Cartons and cases are exempt from subsection (1) (b) to (e) where they contain containers of fish that are marked in accordance with subsections (1), (2) and (3).

Note: for smoked fish 1c) will NOT apply

Below is a summary of the information you need. The best approach is to apply for a label evaluation with CFIA at numbers given above.

Product Label

- Name of product “Hot Smoked Coho Salmon”
- Weight of product “Weight: 150 g”
- Name and address of person (business) either doing the processing, or for whom the product was processed or who is distributing the product
“Best Fish Ever, 123 Main Street, Anytown, BC”
- Ingredients “Coho, salt, sugar, spice”
- “Keep Frozen Prior to Use” – in the same font size as the Name of the Product
- Lot or batch number
- Recommend a Best before or use date

ALL this information should be placed onto a single label, and the label should be applied BEFORE PUTTING IN THE FISH AND FREEZING. Most labels will not fall off after product is frozen, if they do, find a different type label that will adhere at frozen temperatures.

Packaging Materials

Foil and clear packaging **IS ACCEPTABLE**. Classical retort pouches have foil on both sides and you cannot see into the package (don't use this for smoked frozen or refrigerated product). As long as your packaging is food grade and sealable it should be fine.

CFIA does have an approved packaging list for their federally registered plants, you can check your list to see if your product is there. Include this information (write down and give to your health inspector) to include in your final application description along with the labeling information.

Here's the link to the CFIA list of approved packaging materials.

<http://active.inspection.gc.ca/scripts/fssa/reference/reference.asp?lang=e&cmd=1&cat=18&subcat=87>

Other helpful links.

Canadian Fish Inspection Act

<http://laws.justice.gc.ca/en/showtdm/cs/F-12///en>

The most important part of the act is shown below:

Tainted fish

10. (1) No person shall import, export, sell for export or have in his possession for export any fish intended for human consumption that is tainted, decomposed or unwholesome.

Canadian Fish Inspection Regulation

<http://laws.justice.gc.ca/en/showtdm/cr/C.R.C.-c.802//?showtoc=&instrumentnumber=C.R.C.-c.802>

BC Provincial Fish Inspection Act

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96148_01

BC Provincial Fish Inspection Regulation

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/10_12_78

BC Fisheries Act

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96149_01

BC Fisheries Regulation

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_140_76

BC Food Safety Act

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_02028_01

BC Public Health Act - Food Premises Regulation

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_210_99