

**CHAPTER 2, STANDARD 5****CANNED CLAM STANDARD****1. INTRODUCTION**

This standard for canned clams derives its authority from the Fish Inspection Regulations. It defines minimum acceptability of canned clams for taint, decomposition, unwholesomeness and other requirements, other than weight, as defined in the Fish Inspection Act and Regulations and describes methods for determining that acceptability.

**2. SCOPE**

This standard applies to canned and/or heat processed clams, clam meats, minced clam meats or chopped clam meats in hermetically sealed containers, prepared from any of the following species:

Mya arenaria  
Spisula solidissima  
Ensis directus  
Mercenaria mercenaria or Venus mercenaria  
Arctica islandica  
Saxidomus giganteus

Other species commonly associated with the clam family.

Canned clams, clam meats, minced clam meats or chopped clam meats should be prepared from sound, wholesome raw material processed using current good manufacturing practices.

Documents used to determine good manufacturing practice and compliance include:

- 1) International Code of Practice for Low Acid Canned Food CAC/RCP 23-1979.
- 2) Metal Can Defects Identification and Classification Manual, Department of Fisheries and Oceans, Inspection Services, 1989.
- 3) Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL 6.5) CAC/RM 42-1969.
- 4) Code of Practice - General Principles of Food Hygiene for Use by the Food Industry in Canada, Health Protection Branch, Health and Welfare Canada, 1983.

### 3. NOMENCLATURE

- a) The name of the product shall be "Clams" or "Clam Meats".
- b) The following forms of presentation must be accurately described on the label: minced or chopped, as appropriate.
- c) Any additional descriptive terms used must accurately reflect the contents of the can.

### 4. FORMS OF PRODUCT PRESENTATION

The product may be prepared from clams, steamed or not, smoked or unsmoked, whole (unshelled) clams or shucked meats, which have been culled, washed, trimmed if necessary and packed in a container with brine, own juice and/or other suitable food grade packing media.

#### 4.1 Other presentations

Any other presentation of the product may be permitted provided that it:

- a) is sufficiently distinctive from the forms of presentation set out above; and
- b) meets all other Canadian regulatory requirements; and
- c) is adequately described on the label and in accordance with all regulatory labelling requirements.

### 5. SAMPLING

The sampling and tolerance plans at the beginning of this manual shall be used to determine the acceptability of the lot. The sampling plans dictate the minimum sample size to be taken. If necessary, in the opinion of the inspector, more than the minimum sample size specified may be taken.

- 5.1 Sampling of lots for the sensory examination of the product shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plan for Prepackaged Foods (AQL 6.5) (CAC/RM42-1969) except that a lower acceptance number for decomposition shall be used as indicated in the sampling tables.

The sampling tables specify the minimum number of sample units to be used for the following types of inspections:

- a) Level I - Sensory examinations of all products subject to inspection other than lots which are subject to reinspection.
- b) Level II - Sensory examination of all products which are under reinspection.

## 5.2 Size of Sample Unit

The sample unit shall consist of a can of clams and the entire contents thereof.

## 6. DESCRIPTION OF DEFECTS

### 6.1 Taint

A unit will be considered tainted when any of the following conditions are found:

- a) Rancid  
Odour characterized by the distinct or persistent odour of oxidized oil; or

Flavour characterized by that of oxidized oil which leaves a distinct bitter aftertaste.

- b) Abnormal  
Distinct and persistent odour or flavour uncharacteristic of the species or method of preparation, such as ash-like or charcoal-like, feedy, burnt or acrid, metallic, and not defined as rancid or decomposed; or

Flavour or odour resulting from the improper addition or mixing of ingredients.

### 6.2 Decomposition

A unit will be considered decomposed when any of the following conditions are found:

- a) Odour or flavour  
Persistent, distinct and uncharacteristic odour or flavour including but not limited to the following:

sour, musty, vegetable, fruity, ammonia, yeasty, hydrogen sulphide, faecal, putrid.

- b) Texture  
Breakdown of tissue characterized by structure which is very soft or mushy.
- c) Discolouration  
Distinct discolouration of the clam meats, characterized by green, gray or black colours. (Note: Excluded from this defect is a normal greenish tinge to the belly wall, due to the presence of algae in the stomach).

### 6.3 Unwholesome

a) Critical Foreign Material

A lot will be considered defective when any of the following conditions are found:

the presence of any material which has not been derived from clams (and packing media) and which poses a threat to human health (such as glass, etc.); or

distinct and persistent odour or flavour of any material which has not been derived from clams (and packing media) and which poses a threat to human health (such as solvents, fuel oil, etc.).

b) Foreign Material

A unit will be considered defective when the following condition is found:

the presence of any material which has not been derived from clams (and packing media) but does not pose a threat to human health (such as insect pieces, sand, etc.).

c) Other Defects

A unit will be considered defective when any of the following conditions are found:

- 1) **Struvite Crystals** (magnesium ammonium phosphate crystals)  
Any struvite crystal greater than 5 mm in length.
- 2) **Sulphide Blackening** (smut)  
Staining of the meat in excess of 5% of the drained contents.
- 3) **Discolouration of Packing Medium**  
The packing medium is blue or black.

**7. EXAMINATION METHODS**

- 7.1 Complete external can examination.
- 7.2 Open can and complete drained weight determination, according to defined procedures.
- 7.3 Carefully remove product from can. Examine can interior for presence of foreign material, sulphide blackening, struvite crystals, and corrosion or other can interior defects.
- 7.4 Examine liquid and clams for presence of struvite crystals, sulphide blackening or foreign material. Assess colour of clams and liquid.
- 7.5 Assess odour. Assess flavour and texture as required.
- 7.6 Record any defect for that unit on the appropriate worksheet.

**8. CLASSIFICATION OF "DEFECTIVES"**

A sample unit which contains defects as described in section 6 is classified as a "defective".

**9. LOT ACCEPTANCE**

A lot will be considered unacceptable when:

- a) any single instance of critical foreign material occurs; or
- b) the total number of sample units found defective for taint, decomposition or unwholesomeness, individually or in combination, exceeds the acceptance number for the sample size designated in the sampling plans; or
- c) the total number of sample units found defective for decomposition exceeds the acceptance number shown in parentheses for the sample size designated in the sampling plans.