

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية
GCC STANDARDIZATION ORGANIZATION (GSO)



GSO 1750/2013 (E)

السردين المعلب
Canned Sardines

ICS : 67.120.30

Canned Sardines

Date of GSO Board of Directors' Approval : 26/11/1434h(02/10/2013)
Issuing Status : Technical regulation

Foreword

GCC Standardization Organization (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulations through specialized technical committees (TCs).

GSO through the technical program of committee TC No (5) "Technical committee for standards of food and agriculture products" has updated the GSO Technical regulation No. : GSO 1750/2006 "Canned Sardines" The Draft Technical regulation has been prepared by United Arab Emirates .

This Technical regulation has been approved by GSO Board of Directors in its meeting No.(18), held on 26/11/1434h(02/10/2013), The approved standard will replace and supersede the standard No. GSO 1750/2006 .

Canned Sardine

1. SCOPE

This standard applies to canned sardines and sardine-type products ,It does not apply to specialty products where fish content constitute less than 50% m/m of the net contents of the can.

2. COMPLEMENTARY STANDARDS

- 2.1 GSO 9: "Labeling of prepackaged foodstuffs".
- 2.2 GSO 21:" Hygienic regulations for food plants and their personnel ".
- 2.3 GSO 382: "Maximum allowable limits of pesticides residue in agricultural and food products – part 1 " .
- 2.4 GSO 383: "Maximum allowable limits of pesticides residue in agricultural and food products – part 2 " .
- 2.5 GSO 589: " Methods of physical and chemical analysis of fish ,shell fish and their products ".
- 2.6 GSO 655: " Methods of microbiological examination of fish, shell fish and their products ".
- 2.7 GSO 988: "Limits of radioactivity levels permitted in foodstuffs- part 1".
- 2.8 GSO 1000: " Methods of sampling for prepackaged food products".
- 2.9 GSO 1016: " Microbiology criteria for food stuffs – part 1".
- 2.10 GSO 1694: "General principles of food hygiene".
- 2.11 GSO 1861:" Fish Products Determination Of Histamine (Reference Method)".
- 2.12 GSO 1791:" Three Piece Steel Round Cans Used For Canning Food Stuffs".
- 2.13 GSO 1792: "Methods Of Test For Three Piece Steel Round Cans Used For Canning Food Stuffs".

3. DEFINITIONS:

3.1 Canned sardines :

A food product prepared from the following sardine species of fresh, frozen or smoked sardine fish which packed in water, oil or other suitable packing medium, in hermetically sealed containers and heat processed after packing to ensure its commercial sterility to prevent its spoilage:

- *Sardina pilchardus*
- *Sardinops melanostictus*, *S. neopilchardus*, *S. ocellatus*, *S. sagax*, *S. caeruleus*,
- *Sardinella aurita*, *S. brasiliensis*, *S. maderensis*, *S. longiceps*, *S. gibbosa*
- *Clupea harengus*
- *Clupea bentincki*
- *Sprattus sprattus*

- *Hyperlophus vittatus*
- *Nematalosa vlaminghi*
- *Etrumeus teres*
- *Ethmidium maculatum*
- *Engraulis anchoita*, *E. mordax*, *E. ringens*
- *Opisthonema oglinum*

3.2 Foreign materials :

Any materials other than fish or packing medium that poses a threat to consumer health, its presence indicate that no good hygienic regulations during processing has been follow .

4. REQUIREMENTS:

The following requirements shall be met in the canned sardines:

4.1 Physical requirements:

- 4.1.1 The product shall be completely free from pig products and its derivatives.
 - 4.1.2 The product shall be prepared from sound, clean fresh, frozen or smoked sardine's fish and fit for human consumption.
 - 4.1.3 The product shall be prepared from sardines, with head and gills removed, scales and / or tail may be removed If eviscerated, the product shall be free from undigested feed and from visceral parts other than roe, milt or kidney.
 - 4.1.4 The container shall not be contains less than two fish's.
 - 4.1.5 The colour of canned sardines shall be characteristics to that of its species and free from black spots .
 - 4.1.6 The product shall be produced according to regulations mention in GSO standard item (2.2) and (2.10).
- ### 4.2 Chemical requirements:
- 4.2.1 The packing medium and other materials used in packing shall be food grade and comply with GSO Standard specific to each.
 - 4.2.2 Histamine content in the product shall not exceed 10 mg / 100 g, provided that no sample unit contain histamine exceed 20 mg/ 100 g.
 - 4.2.3 Any one of the following substances may be added to the packing medium according to GMP :

4.2.3.1

| | Thickening or Gelling Agents | No . index |
|----|---|------------|
| 1 | Alginic acid | 400 |
| 2 | Sodium alginate | 401 |
| 3 | Potassium alginate | 402 |
| 4 | Calcium alginate | 404 |
| 5 | Agar | 406 |
| 6 | Carrageenan and its Na ,K,and NH ₄ salts (including furcelleran) | 407 |
| 7 | processed Euchema Seaweed (PES) | 407a |
| 8 | Carob gum | 410 |
| 9 | Guar gum | 412 |
| 10 | Tragacanth gum | 413 |
| 11 | Xanthan gum | 415 |
| 12 | Pectins | 440 |
| 13 | sodium carboxymethylcellulose | 466 |

4.2.3.2

| | Modified starches : | No. index |
|----|---|-----------|
| 1 | Acid treated starches | 1401 |
| 2 | Alkaline treated starches | 1402 |
| 3 | Oxidized starches | 1404 |
| 4 | Monostarch phosphate | 1410 |
| 5 | Distarch phosphate esterified with sodium trimetaphosphate; esterified with phosphorus oxychloride | 1412 |
| 6 | Phosphated distarch phosphate | 1413 |
| 7 | Acetylated distarch phosphate | 1414 |
| 8 | Starch acetate | 1420 |
| 9 | Acetylated distarch adipate | 1422 |
| 10 | Hydroxypropyl starch | 1440 |
| 11 | Hydroxypropyl starch phosphate | 1442 |

4.2.3.3

| | Acidity regulators | No. index |
|---|---------------------------------|-----------|
| 1 | Acetic acid . | 260 |
| 2 | b- Lactic acid (L-,D-,and DL-). | 270 |
| 3 | c- Citric acid | 330 |

4.2.3.4 Natural flavours:

- 1- Spice oils.
- 2- Spice extracts.
- 3- Smoke flavours (Natural smoke solutions and extracts).

4.2.4 Contaminant metallic elements content shall not exceed to what has been mentioned against each (p.p.m) :

| | metallic elements | p.p.m |
|---|-------------------|-------|
| 1 | Lead | 0.4 |
| 2 | Mercury | 1.0 |
| 3 | Cadmium | 0.3 |
| 4 | Arsenic | 1.0 |

- 4.2.5 Pesticides residue content shall not exceed to what has been mentioned in GSO standards stated in item (2.3), (2.4).
- 4.3 Biological requirements:
- 4.3.1 The products shall be free from any foreign material that poses to consumer health and free from, impurities , the indications of spoilage and off flavours.
- 4.3.2 The product shall be free from microorganisms capable of development under conditions of storage.
- 4.3.3 The product shall be free from any substances derived from microorganisms in amounts which may represent a hazard to health.
- 4.3.4 Shall be free from container integrity defects which may compromise the hermetic seal.
- 4.3.5 Microbiology requirements shall be comply to what has been mentioned in GSO standard stated in item (2.9).
- 4.3.6 Radioactivity limits in the product shall not exceed to what has been mentioned in GSO standard stated in item (2.7).
5. PACKING, TRANSPORTATION AND STORAGE:
- 5.1 Packing:
- 5.1.1 Sardines shall be packed in hermetically sealed containers and when packed with tin – plate it should meet the requirements stated in GSO Standard mentioned in item (2.12).
- 5.1.2 The internal surface of the container shall be enameled with suitable food grade enamel and free from corrosion.
- 5.1.3 The cans shall be free from mechanical defects , leakage and rust.
- 5.2 Transportation:
- The containers shall be transported in a way to keep it from mechanical damage or contamination. .
- 5.3 Storage:
- The containers shall be store in good ventilated stores far away from heat and contamination sources.
- 6. Methods of examination and test:**
- 6.1 Sampling:
- Samples shall be taken according to GSO standard stated in item (2.8).

- 6.2 Methods of test:
- 6.2.1 Physical and chemical tests shall be carried out according to GSO standard stated in item (2.5).
- 6.2.2 Microbiological tests shall be carried out according to GSO Standard stated in item (2.6).
- 6.2.3 Determination of histamine shall be carried out according to GSO Standard stated in item (2.11).
- 6.2.4 Test of three pieces steel round cans shall be carried out according to GSO Standard stated in item (2.13).

7. LABELLING:

Without prejudice to what has been mentioned in GSO standard stated in item (2.1), the following shall be declared on the can label:

- 7.1 product name (Sardine) attached with the kind of sardine or the name of country or geographic area which produced in it .
- 7.2 The type of used packing medium as a part of the name of the product.
- 7.3 The word (smoked) or smoke flavoured , according to the case.
- 7.4 The label shall not include other descriptive terms that will avoid misleading or confusing the consumer.
- 7.5 The production and expiration (month-year).