

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

مشروع نهائي  
Final Standard FDS

TC 05 اعداد اللجنة الفنية الخليجية  
Prepared by GSO Technical Committee No. TC 05

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الأسماك المملحة والمملحة المجففة  
Salted fish and dried salted fish

ICS: 67.120

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## **Foreword**

Standardization Organization for GCC (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 through specialized technical committees (TCs).

The GSO Board of Directors in its meeting No ( ) held on / /H, Correspond to / / . Has been decided to approve the Technical Regulation No. ( ) " Salted fish and dried salted fish" in English language, which has been study through the technical program of committee TC No 5 "The Gulf Technical Committee for Food and Agricultural Standards Products" listed in State of Qatar plan.

## **Salted fish and dried salted fish**

### **1-Scope and field of application:**

This Gulf Standard is concerned with salted fish and dried salted fish of the family Gadidae, which has been fully saturated with salt (heavy salted) or to salted fish which has been preserved by partial saturation to a salt content not less than 12% by weight of the salted fish which may be offered for consumption without further industrial processes.

### **2-Complementary references:**

- 2.1 GSO 9 “Labelling of Prepackaged Foods”.
- 2.2 GSO 20 “Methods for the Determination of Contaminating Metallic Elements in Foodstuffs”.
- 2.3 GSO 21 "Hygienic regulations for food plants and their personnel".
- 2.4 GSO 150 " Expiration periods for food products- Part 2: Voluntary periods".
- 2.5 GSO 168"Requirements for stores of keeping dry and packaged food products".
- 2.6 GSO 382,383 “Maximum Limits of Pesticide Residue – Permitted in Food Products: Part 1 and part 2”.
- 2.7 GSO 589 “Methods of Physical and Chemical Analysis of Fish, Shellfish and Their Products”.
- 2.8 GSO 655 “Methods of Microbiological Examination for Meat, Fish and Shellfish”.
- 2.9 GSO 839 “Food Packages – Part I – General Requirements”.
- 2.10 GSO 998 “Methods for Detection of Limits of Radioactivity Levels Permitted in Agriculture and Food Products – Part 1”.

- 2.11 GSO 1000 " METHOD OF SAMPLING FOR PREPACKAGED  
FOOD PRODUCTS
- 2.12 GSO 1016 “Microbiological Criteria for Foodstuffs – Part 1”.
- 2.13 GSO/CAC 193" General Standard for contaminants and toxins in foods".
- 2.14 GSO Standard which the Organization shall be approved on “Methods of  
Sampling Fish, Shellfish and Their Products”.

**3. Definitions:**

**3.1 Salted fish:** is the product obtained from fish of the species belonging to the family Gadidae; and which has been bled, gutted, beheaded, split or .filleted, washed and salted.

**3.2 Dried salted fish:** Salted fish and dried.

**3.3 Dry Salting:** Is the process of mixing fish with suitable food grade salt and stacking the fish in such a manner that the excess of the resulting brine drains.

**3.4 Wet Salting (pickling):** is the process whereby fish is mixed with ) suitable food grade salt and stored in watertight containers under the resultant brine (pickle) which forms by solution of salt in the water extracted from the fish tissue. Brine may be added to the container. The fish is subsequently removed from the container and stacked so that the brine .drains away

**3.5 Brine Injection:** is the process for directly injecting brine into the fish ) .flesh and is permitted as a part of the heavy salting process

**3.6 Natural Drying:** the fish is dried by exposure to the open air

**3.7 Artificial Drying :** the fish is dried in mechanically circulated air, ) the temperature and humidity of which may be controlled.

**4. Presentation:**

**4.1 Split fish:** split and with the major length of the anterior of the backbone removed (about two-thirds).

**4.2 Split fish with entire backbone:** split with the whole of the backbone not removed.

**4.3 Fillet :** is cut from the fish, strips of flesh is cut parallel to the central bone of the fish and from which fins main bones and sometimes belly flap is removed.

**4.4 Other presentation:** any other presentation of the product shall be permitted provided that it:

4.4.1 Is sufficiently distinctive from the other forms of presentation laid down in this Standard.

4.4.2 Meets all other requirements of this Standard

4.4.3 Is adequately described on the label to avoid confusing or misleading the consumer

**5. Requirements:**

**The following requirements shall be met in the product:**

5.1 The fish intended for processing shall be sound, clean and fit for human consumption.

5.2 Using salt in the processing shall be comply with the specific Gulf Standard, and shall be clean, free from foreign materials, and not contain any sings of contaminations, dirt, oils or any other extraneous matters.

5.3 The production shall be carried out according to the hygienic regulations mentioned in Gulf Standard stated in Item 3.2.

5.4 The product shall be free from visual defects on the surface, and free from molds, insects and their parts.

5.5 The flesh of the product shall be hold texture and not to be soft or  
With kneading-trough texture.

5.6 The product shall be free from extraneous matter.

5.7 The product shall be free from extraneous flavors which indicates for spoilage or rancidity.

5.8 Only the use of sorbets with INS 200-203 as preservatives with maximum level 200 ppm singly or in combination as sorbic acid.

5.9 The microbiological requirements shall be comply with what mentioned in Gulf Standard stated in Item 2.13.

5.10 The level of contaminants and toxins in the product shall not exceed to what mentioned in Gulf Standard stated in Item 2.14.

5.11 The level of pesticides residues in the product shall not exceed to what mentioned in Gulf Standard stated in Item 2.5.

5.12 The sample unit shall be considered defective when it exhibits any of the .properties defined below:

5.12.1 Foreign Matter:

The presence in the sample unit of any matter which has not been derived from Gadidae fish, does not pose a threat to human health, and is readily recognized without magnification or is present at a level determined by any method including magnification that indicates non-compliance with good .manufacturing and sanitation practices

5.12.2 Odor:

A fish affected by persistent and distinct objectionable odors indicative of decomposition (such as sour, putridetc.) or contamination by foreign .(substances (such as fuel oil, cleaning compounds, etc

5.12.3 Pink :

Any visible evidence of red halophilic bacteria.

5.12.4 Appearance:

Textural breakdown of the flesh which is characterized by extensive cracks on more than 2/3 of the surface area or which has been mutilated, torn or broken through to the extent that the split fish is divided into two or more pieces but still held together by skin.

5.12.5 when 30% or more of the fish in the sample unit are affected by any of the following defects:

5.12.5.1 A fish showing an aggregate area of pronounced halophilic mold clusters on more than 1/3 of the total surface area of the face side.

5.12.5.2 A pronounced yellow or yellowish orange discoloration caused by the presence of liver and affecting more than 1/4 of the total surface area of the face of the fish.

5.12.5.3 Any fish showing more than 1/2 of the face of the fish with intense bruising.

5.12.5.4 A fish with more than 1/2 of the back (skin side) tacky or sticky due to overheating during drying

**6. Sampling:**

Samples of the product shall be taken according to what mentioned in Gulf Standard stated in Item 2.11.

**7. Methods of examination and test:**

Examination and test of the product shall be carried out according to Gulf Standards stated in Items 2.2, 2.7, 2.8, 2.10.

**8. Packaging:**

8.1 The product shall be packing in containers comply with what mentioned in Gulf Standard stated in Item 2.9.

8.2 The container shall contain one only one form of presentation from one species of fish.

**9. Labeling:**

Without prejudice to what mentioned in Gulf Standards stated in Items 2.1, 2,4 the following information shall be declared on the product label:

9.1 Product name:

Product name shall be salted fish, wet salted fish, and salted fish fillet, dried salted fish or any salted fish with another presentation according to the Standard.

9.2 Product presentation: According to what declared in Item (4).

9.3 The term "klippfish" can only be used for dried salted fish which has been prepared from fish which has reached salt saturation prior to drying 95%.

9.4 The term "wet salted fish" can only be used for fish fully saturated with salt.

**10. Transportation and storage:**

**10.1 Transportation:**

**10.1.1 The pro**

duct shall be transport with suitable transport means, far from any toxic materials or harmful to health.

10.1.2 All transport means surface which contact with product containers during transportation shall be easy clean and disinfectant.

**10.2 Storage:**

The product shall be store in stores far from the sources of heat, contamination and direct sunrise, the stores shall be comply with the Gulf Standard stated in Item 2.5.



