

STANDARDIZATION ORGANIZATION FOR G.C.C (GSO)

مشروع نهائي

GSO 5/FDS..... / 2011

**PREPARED MEATS: MEAT TREATED WITH
SALINE SOLUTIONS AND HEAT TREATED**

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 /Technical regulation through specialized technical committees (TCs).

GSO through the technical program of committee TC No 5 " The Gulf Technical Committee for Food and Agricultural Standards Products" has prepared this Standard . The Draft Standard has been prepared by
(KINGDOM OF SAUDI ARABIA)

The draft Standard has been prepared based on relevant ADMO, International and National foreign Standards and references.

This standard has been approved as Gulf (Standard / Technical Regulation) by GSO Board of Directors in its meeting No.../....held on / / / H , / / G

**PREPARED MEATS: MEAT TREATED WITH
SALINE SOLUTIONS AND HEAT TREATED**

Date of GSO Board of Directors' Approval :
Issuing Status :

PREPARED MEATS: MEAT TREATED WITH SALINE SOLUTIONS AND HEAT TREATED

1. SCOPE AND FIELD OF APPLICATION

This standard is concerned with meats from chilled, frozen beef, buffalo or camel, lamb, domesticated birds or rabbit which are cured with saline solution and heat treated with or without smoking and packed in suitable containers.

2. COMPLEMENTARY REFERENCES

- 2.1 GSO 9 “Labeling of Pre-packaged Foods”.
- 2.2 GSO 592 “Methods of Sampling for Meat and Meat Products”.
- 2.3 GSO 1794 “Hermetically Sealed Rounded Tin Cans Used for Canning Food Stuffs”.
- 2.4 GSO 655 “Methods of Microbiological Examination for Meat, Fish, and Shell Fish”.
- 2.5 GSO 20 “Methods for the Determination of Contaminating Metallic Elements in Food Stuffs”.
- 2.6 GSO 21 “Hygienic Regulations for Food Plants & Their Personnel”.
- 2.7 GSO 22 “Methods of Test for Coloring Matter Used in Food Stuffs”.
- 2.8 GSO ISO 2918 “Meat and Meat Products – Determination of nitrate content (Reference Method)”.
- 2.9 GSO 993 “Animal Slaughtering Requirements According to Islamic Law”.
- 2.10 GSO 795 “Methods of Test for Antioxidants Permitted for Use in Food Products”.
- 2.11 GSO 839 “Food Packages Part 1 – General Requirements”.
- 2.12 GSO 1863 “Food Packages Part Two – Plastic Packages – General Requirements”.
- 2.13 GSO 1016 “Microbiological Criteria for Food Stuffs – Part 1”.
- 2.14 GSO 988 “Limits Radioactivity Levels Permitted in Food Stuffs”.
- 2.15 GSO 998 “Methods for Detection of Permissible Radionuclides Limits in Food – Part 1: Gamma Spectrometry”.
- 2.16 GSO CAC/MRL 02 " Maximum Residue limits for veterinary drugs in food "
- 2.17 GSO/CAC 193 " General Standard for contaminants & toxins in food "

GSO to be approved by the Organization concerning:

- 2.18 “Detection of Pork Meat in Foodstuffs”.

- 2.19 “Detection of Lard in Food Stuffs”.
- 2.20 “Maximum Level of Pesticides Residues Permitted in Agricultural and Food Products – Part 3”.
- 2.21 “Methods of Detection of Maximum Limits of Pesticide Residues Permitted in Foodstuffs”.
- 2.22 “Detection and Determination of veterinary drugs in food ”.

3. DEFINITIONS

- 3.1 Meat cured with saline solutions and heat treated: Food product prepared from selected meat cuts taken from one or more parts of the carcass which is free from bones , cartilage and internal organs, cured with saline solutions and heat treated with or without smoking and packed in suitable containers.
- 3.2 Saline solution: A solution prepared from a certain amount of water and salt to which alkaline salts (to increase water binding ability), preservatives, antioxidants, spices and flavor enhancers may be added. This solution is used to cure meat cuts by injection or immersion.
- 3.3 Unmixed meat cured with saline solutions and heat-treated: As in 3.1, prepared from one part of the carcass like breast or leg or loin or plate so that the name of this part is used with the meat type to label the product.
- 3.4 Mixed meat cured with saline solution and heat-treated: As in 3.1, prepared from different carcass cuts and only the meat type is used to label the product.
- 3.5 Slices of meat cured with saline solution and heat-treated: As in 3.3 or 3.4, after being sliced and vacuum packed in suitable containers.

4. REQUIREMENTS

The following requirements shall be met in meat cured with saline solution and heat treated:

- 4.1 The meats used to produce the product shall be derived from animals slaughtered according to the GSO standard mentioned in 2.9.
- 4.2 Chilled or frozen meats and all other ingredients and additives used for the product processing shall be in compliance with their respective GSO standard.
- 4.3 The products shall be prepared according to hygienic regulations stated in GSO standard mentioned in 2.6.
- 4.4 The products Shall be free from pork and lard products or their derivatives.
- 4.5 The meat used for their processing shall be from one type.
- 4.6 The flavor of the product shall be characteristic of the meat type from which it is produced and the characteristic smoking flavor, if smoked.
- 4.7 The product shall be homogenous and sliceable upon cutting.
- 4.8 Product surface color shall range between light brown and dark brown which was formed because of suitable heat treatment and / or natural smooking.

- 4.9 It shall be free from artificial coloring materials.
- 4.10 It shall be free from impurities, foreign matters and unacceptable smells. Also the external surface shall be dry and free of mucilage or other spoilage signs
- 4.11 Meats used shall be handled, transported and stored throughout processing stages and until smoking operations initiation or heat treatment under conditions which do not allow any contamination or spoilage or damage in them. Also, the temperature of these meats shall not exceed 4°C during this processing cycle, likewise the temperature of the saline solution used in the curing process.
- 4.12 The heat treatment shall be sufficient to ensure safety and wholesomeness of the product for human consumption.
- 4.13 The percentage of meat in the product shall not be less than 80% and the percentage of meat protein (fat-free basis) shall not be less than 16%.
- 4.14 The moisture content shall not exceeds 4 times the protein content + 10%.
- 4.15 The toxins and contaminants limits shall comply with those maximum limits mentioned in Gulf standard stated in item (2.17)
- 4.16 Microbiological limits shall not exceed the limits stated in the GSO standard mentioned in 2.13
- 4.17 The limits of pesticide residues shall not exceed the maximum limits stated in GSO standard mentioned in 2.20.
- 4.18 The limits of veterinary drugs shall not exceed the maximum limits stated in the GSO standard mentioned in 2.16.
- 4.19 Radioactivity levels shall not exceed the maximum limits stated in the GSO standard mentioned in 2.14.
- 4.20 Additives
- 4.20.1 Preservatives
- Sodium and/or potassium nitrite content in the final product shall not exceed 125ppm as sodium nitrite.
- 4.20.2 Antioxidants
- Ascorbic and/or isoascorbic acids and their Sodium or potassium salts} Estimated as ascorbic acid and shall not exceed 500 ppm, single or combinedly.
- or
- Erythorbic isoerythrobic acids or their sodium or potassium salts} estimated as erythorbic acid and shall not exceed 500 ppm, single or combinedly.
- 4.20.3 Water holding agents
- Mono-, di-or poly-Sodium or potassium phosphate estimated as P₂ O₅ and shall not exceed 3000 ppm, single or combined.
- 4.20.4 Thickening agents
- Agar or carragenan} according to GMP .

- Sodium aliginate and/or potassium aliginate} shall not exceed 1 0 ppm in the product.
- 4.20.5 Carbohydrates
 - Sucrose, dextrose, lactose, maltose, glucose and honey, single or combined shall not exceed 3.5%
- 4.20.6 Flavoring agents
 - Spices, condiments
 - natural or natural – like flavors
 - natural liquid smook
 } according to good manufacturing practice (GMP)
- 4.20.7 Flavor enhancers
 - Mono-sodium glutamate
 - Di-sodium gunalate
 - Di-sodium inosinate
 } Single or combined shall not exceed 5000 ppm
- 4.21 Imported meats cured with saline solution and heat treated: In addition to 4.1 - 4.20 they shall meet the following requirements:-
 - 4.21.1 It is forbidden to import meats cured with saline solution and heat treated from any country where there are epidemic diseases as defined in the quarantine rules of the Kingdom of GULF unless a prior permission from the concerned authorities is obtained.
 - 4.21.2 The imported lot shall be accompanied with a certificate approved and ratified by the GULF Consulate or any delegated body indicating that the meat used in the processing of meats cured with saline solution and heat treated was from animals slaughtered according to Islamic rules, as well as the date of slaughtering, animal type and that the product has been found free from infectious diseases and fit for human consumption.
 - 4.21.3 The imported lot shall be accompanied with a certificate of the country of origin indicating the country from which the product was imported, approved and ratified by the GULF Consulate or its representative

5. SAMPLING

Samples shall be taken according to the GSO standard mentioned in 2.2.

6. METHODS OF TESTING AND EXAMINATION

- 6.1 Examination methods
 - 6.1.1 Detection of microbiological limits shall be carried out according to the GSO standard mentioned in 2.4.
 - 6.1.2 The contaminating metallic elements shall be determined according to the GSO standard mentioned in 2.5.

- 6.1.3 Detection of coloring agents shall be carried out according to the GSO standard mentioned in 2.7.
- 6.1.4 Nitrite content shall be determined according to the GSO standard mentioned in 2.8.
- 6.1.5 Detection of antioxidant shall be carried out according to the GSO standard mentioned in 2.10.
- 6.1.6 Detection of pork shall be carried out according to the GSO standard mentioned in 2.18.
- 6.1.7 Detection of lard shall be carried out according to the GSO standard mentioned in 2.19.
- 6.1.8 Detection of pesticide residues shall be carried out according to the GSO standard mentioned in 2.21.
- 6.1.9 Detection of veterinary drugs residues shall be carried out according to the GSO standard mentioned in 2.22.
- 6.1.10 Detection of radioactivity levels shall be carried out according to the GSO standard in 2.15.

6.2 Tests

All the necessary tests shall be carried out on a representative sample taken according to 6 to determine its compliance with all items of this standard.

7. PACKAGING TRANSPORTATION AND STORAGE

Without prejudice to what is stated in the GSO standard mentioned in 2.3, 2.11 and 2.12, the following shall be met in packaging, transporting and storing meats cured with saline solution and heat treated;

7.1 Packaging

- 7.1.1 Containers used for packaging shall be clean and made of suitable materials that have no effect on the product quality characteristics and its safety under storage transportation and handling conditions.
- 7.1.2 If the product final packaging process take place after the heat treatment, such process shall be carried out away from the processing areas and shall be completed in the shortest possible period under suitable hygienic conditions.
- 7.1.3 Slices or cuts prepared in the processing factory for retailer sale shall be vacuum-packed in suitable containers to ensure product protection from contamination or damage during handling.

7.2 Transportation and storage

- 7.2.1 The products shall be transported and stored at temperatures that range between 0-5°C.
- 7.2.2 Product shall be transported and stored by means that protect it from spoilage or damage.
- 7.2.3 Shelf-life of the products packed in vacuum containers shall not exceed 3 months from the processing date.

7.2.4 Shelf-life of the products packed in vacuum containers, from which the casing was removed shall not exceed 72 hrs and shall be kept chilled and protected from direct air throughout this period.

7.2.5 Shelf-life of canned products shall not exceed 9 months.

8. LABELLING

Without prejudice to what is stated in the GSO standard mentioned in 2.1, the following information shall be clearly declared on the package:-

8.1 Product name and meat type used and its percentage with adherence to 3 of this standard.

8.2 Fat %, clearly shown with bold letters.

8.3 Salt %, clearly shown with bold letters.

8.4 Binder and filler substances and added preservatives and their percentages (%).

8.5 Recommended storing and handling conditions with attention to 7.2.4 of this standard.

REFERENCES

**Codex Alimentarius Commission
Alinorm 83/16 Report of the Twelfth
Session of the Codex committee on
processed Meat and poultry products.**

**Leatherehead Food R.A. Food
Legislation Surveys No . 6. Heavy
Metals in Foods .Second Edition,
1986.**

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**Page: 19- 30 Codex Standard for
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