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G.C.C STANDARDIZATION ORGANIZATION (GSO)

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المياه العطرية – المعدة للإستهلاك الآدمي
المتطلبات العامة

EDIBLE ESSENTIAL WATER

GENERAL REQUIREMENTS

Prepared By

GSO Technical Committee for standards of food and agriculture products

This document is a draft GSO Standard circulated for comments. It is, therefore, subject to alteration and modification and may not be referred to as a GSO Standard until approved by GSO Board Of Directors

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Date of Board of Directors' approval	**:**
Issuing Status	**:**

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 "Gulf technical committee for standards of food and agriculture products" has been renew Gulf standard No. 1017/1998 The Draft Standard has been prepared by Sultanate of Oman.

This standard has been approved as a Gulf (Standard / Technical Regulation) by GSO Board of Directors in its meeting No.( ),held on / / H , / / G. The approved standard will replace and supersede the GSO standard No. (1017 / 1998).

EDIBLE ESSENTIAL WATER

GENERAL REQUIREMENTS

1- SCOPE

This standard is concerned with the general requirements of the edible essential water Intended for human consumption.

2- COMPLEMENTARY REFERENCES

2.1 GSO 9 "Labelling of Prepackaged Foods".
2.2 GSO 21 "Hygienic Regulations for Food Plants and their Personnel".
2.3 GSO 20 "Methods for the Determination of Contaminating Metallic Elements in Foods".
2.4 GSO 116 "Methods of Test for Drinking and Mineral Water - Part 3: Determination of Dissolved Solids, pH Value".
2.5 GSO 261 "Microbiological Methods of Food Examination - Part 1: Preparation of Samples".
2.6 GSO 652 "Microbiology - General Guidance for Preparation of Dilutions for Microbiological Examination".
2.7 GSO ISO 7251 "Microbiology - General Guidance for Preparation of Presumptive Escherichia Coli - Most Probable Number Technique".
2.8 GSO ISO 4831 "Microbiology - General Guidance for Enumeration of Coliforms – Most Probable Number Technique".
2.9 GSO ISO 4833 "Microbiology - General Guidance for Enumeration of Micro-Organisms - Colony Count Technique at 30oC".
2.10 GSO 1000 "Methods of Sampling for Prepackaged Food Products ".
2.11 GSO 1022 "Methods of Test for Essential Water".
2.12 GSO 150 "Expiration Periods of Food Products".
2.13 GSO 149 "Un bottled Drinking Water".
2.14 GSO 839 "Food Packages - Part 1: General Requirements".
2.15 GSO 1863 "Food Packages - Part II: Plastic Packages, General Regulations".
2.16 GSO 356 "Preservatives Permitted for Use in Food Products".

3- DEFINITIONS

3.1 Natural Rose Water:

Rose water is a by-product of the rose oil processing. "Rosa Damascena", petals are steam distilled under pressure. After the first and second distillation, rose oil is removed. The remaining oily solution is mixed with the inlet vessel water equally.

3.2 Natural Flower Water:

Flower water is a by-product of the orange flower oil processing. "Citrus aurantium" petals are steam distilled under pressure. After the first and second distillation, orange flower oil is removed. The remaining oily solution is mixed with the inlet vessel water equally. This mixture is flower water.

3.3 Blended Rose Water:

It is prepared by blending concentrated natural rose water extract or natural rose oil with distilled water without prejudice of the requirements of this standard.

3.4 Blended Orange Blossom Water:

It is prepared by blending concentrated natural flowers water extract or natural blossom oil with distilled water without prejudice of the requirements of this standard.

3.5 Mint Water:

It is water resulting from the distillation of parts vegetative ripe for mint plant species by direct steam.

3.6 Anise water:

It is the water resulting from the distillation anise fruits by direct steam.

3.7 Cinnamon water:

It is water resulting from the distillation of the cinnamon tree bark (bark) by direct steam

4- REQUIREMENTS

The natural essential water shall be meeting the following requirements:

4.1 It shall be processed in accordance to the hygienic regulations stated in GSO standard Mentioned in (2.2).

4.2 The water used in distillation shall be comply with the GSO standard Mentioned in the item (2.13).

4.3 It shall be clear, colorless or yellowish.

4.4 It shall be free from precipitate and turbidity.

4.5 It shall have the natural odour and test of essential plant.

4.6 It shall be free from foreign odour and taste.

4.7 It shall be completely free from added organic solvents.

4.8 It shall be free from ethanol and methanol.

4.9 The chemical requirements shall be as indicated in the following table (1):

Table (1)

Characteristics	Requirements
% Of non-volatile material by weight, max	0.012

No. hydrogen ion concentration	5.5 -7
Acidity value: mg Potassium Hydroxide / ml, max	0.4

4.10 The ratio of the essential oil extracted with solvents, according to reported in Table (2):

Table (2)

Edible Essential Water	Minimum essential oil extracted with solvents
Flower Water	0.035% (weight / volume)
Rose Water	0.02% (weight / volume)
Mint Water	0.09% (weight / volume)
Anise water	0.1% (weight / volume)
Cinnamon water	0.1% (weight / volume)

4.11 It shall be free from any food additives except the following preservatives:
- Slupher dioxide or one of its salts not exceed than 70 mg/L.
- Penzoic acid or one of its slats not more than 150 mg/L.

4.12 The contaminating metallic elements content shall not exceed the following:

Iron	0.5	ppm
copper	0.2	ppm
lead	0.01	ppm
cadmium	0.08	ppm

4.13 The total count of bacteria shall not be more than 100 cel/1 ml.

4.14 The coliform shall not be more than 10 cel/100 ml.

4.15 It shall be free from Escherichia coli, Pseudommonas aeruginosa, Candida. Bacillus cereus, and all other pathogenic micro-organisms.

4.16 The yeasts shall not be more than 20 cel/ml.

5- SAMPLING

Sampling shall be carried out according to GSO mentioned in item (2.10).

6- METHODS OF TEST

6.1 Tests shall be carried out according to GSO mentioned in items (2.3 to 2.11).

6.2 Tests shall be carried out on the representative sample drawn according to item (5) to determine its compliance with all the items of this standard

7- PACKAGING, TRANSPORTATION AND STORAGE

7.1 Packing:

The product shall be packed in suitable hygienic, clean, dry, well sealed not previously used containers and do not affect on the properties of product the properties and complying with the GSO standards mentioned in Items (2.14) and (2.15).

7.2 Transportation:

Transportation shall be carried out in such a way as to protect the containers from damage, contamination and far away sunlight.

7.3 Storage

7.3.1 Containers shall be stored in well ventilated stores far direct sunlight and sources of heat and contamination.

7.3.2 The product shall be stored at not more than 25^{o}C.

8- LABELLING

Without prejudice to provisions of GSO Standard mentioned in item (2.1) and Item (2.12) and shall be declared on the label of the product:

8.1 Percentage of essential oil.

8.2 Food preservatives or its code numbers.

8.3 The term “blended shall be appear on the label in the case of essential water prepared by blending”.

8.4 The term “Natural or by distillation” may be appear on the label in the case of essential water obtained by distillation only.