

GS 1057
SASO 196

TOMATO CONCENTRATES

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ICS:

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TOMATO CONCENTRATES

1. SCOPE

The standard is concerned with tomato concentrates and it does not include tomato ketchup, tomato sauce or similar products, which are highly seasoned products of varying concentrations, containing ingredients such as pepper, onions vinegar, sugar etc. in quantities materially alter the flavour, aroma and taste of the tomato component.

2. COMPLEMENTARY REFERENCES

- 2.1 GS 9/1995 “Labelling of Prepackaged Foods”.
 - 2.2 GS 20/1984 “Methods for the determination of contaminating Elements in Food Stuffs”.
 - 2.3 GS 21/1984 “Hygienic Regulations for Food Plants and Thier Personnel”.
 - 2.4 GS 22/1984 “Methods of Test for Colouring Matter Used in Food Stuffs”.
 - 2.5 GS 150/1993 “Expiraiton Periods of Food Products – Part 1”.
 - 2.6 GS 244/1994 “Methods of Test for Vegetables Fruits and Their Products Part 1: Organoleptic Examination Determination of Net Weight and Drained Weight, Determination of Apparent Viscosity, Determination of Head Space, Determination of Extraneous Matter and Defective Fruits”.
 - 2.7 GS 312/1994 “Fruit and Vegetable Products Determination of pH”.
 - 2.8 GS 382/1994 ‘Maximum Limits for Pesticide Residues in Agricultural Food Products – Part 1”.
 - 2.9 GS 383/1994 “Maximum Limits for Pesticide Residues in Agricultural Food Products – Part 2”.
 - 2.10 GS 1016/1998 “Microbiological Criteria for Foodstuffs – Part 1”.
- The following Gulf standards to be approved by the organization on:
- 2.11 GS/..... “Fruit and Vegetable Products – Determination of Mineral Impurities”.
 - 2.12 GS/..... “Fruit and Vegetable Products – Determination of Soluble Solids Content - Refractometric Method”.
 - 2.13 GS/..... “Method for sampling for Canned Fruits and Vegetable Products”.
 - 2.14 GS/..... “Method for Determination of Pesticide Residues in Agricultural Food Products”.

- 2.15 GS/..... “Hermetically Sealed Round Tin Cans Used for Canning Foods”.
- 2.16 GS/..... .“Levels of Radioactivity Permitted in Foodstuffs”.
- 2.17 GS/..... “Methods of Determination of radioactive Materials in Foodstuffs”.

3. DEFINITIONS

- 3.1 **Tomato concentrates:** A product prepared by concentration the liquid obtained from substantially sound mature red tomatoes (*Lycopersicon esculentum* P. Mill) after removal of skins, seeds stems and other coarse substances in the finished products. It contains not less than 8% natural tomato soluble solids, salt (sodium chloride) and seasoning ingredients stated in this standard may be added. The products are preserved by any suitable means of preservation.
- 3.1.1 **Tomato puree:** A tomato concentrate product (3.1) packed in a hygienic suitable containers and containing from 8% to less than 24 natural tomato soluble solids.
- 3.1.1.1 **Extra heavy concentration:** Contains from 15% to less than 24% natural tomato soluble solids.
- 3.1.1.2 **Heavy concentration:** Contains from 11.3% to less than 15% natural tomato soluble solids.
- 3.1.1.3 **Medium concentration:** Contains from 10.2 to less than 11.3% natural tomato soluble solids.
- 3.1.1.4 **Light concentration:** Contains from 8% to less than 10.2% natural tomato soluble solids.
- 3.1.2 **Tomato paste:** A tomato concentrate product packed in a hygienic suitable containers and containing not less 24% natural tomato solids soluble.
- 3.1.2.1 Normal Tomato paste: Containing not less than 24% natural tomato soluble solids.
- 3.1.2.2 Heavy concentrated tomato paste: Containing not less than 28% natural tomato soluble solids.
- 3.1.2.3 Extra heavy concentrated tomato paste: Containing not less than 35% natural tomato soluble solids.

4. REQUIREMENTS

The following requirements shall be met in tomato concentrates:

- 4.1 It shall be completely free from pig products or its derivatives.
- 4.2 All raw materials used in the Processing of the product shall be in compliance with relevant Gulf standard.

- 4.3 The product shall be processed in hygienic plants complied with Gulf standard stated in item 2.3.
 - 4.4 It shall be prepared from the tomato liquid or any combination form it and one of the following liquid.
 - 4.4.1 The liquid obtained form residue left from preparing such tomatoes for canning.
 - 4.4.2 The liquid obtained form the residue left from partial extraction of such tomatoes juice.
 - 4.5 Almost free from defects as dark specks, scale or their particles, seeds or their particles harmless extraneous materials, or other similar substance other than seasoning or flovouring ingredients stated in item 4.10.
 - 4.6 They shall have a good consistency and homogeneous free from lumps.
 - 4.7 The product when diluted with water to reach approximately 8% natural tomato soluble solids shall have a good test, a good characteristic odour and flovour, free from bitter or burned taste or any objectionable flovour.
 - 4.8 The product when diluted with water to reach approximately 8% natural tomato soluble solids shall have a bright typical red colour of tomato products and when they are packed in glass containers it shall shown non discoloration in the neck of this containers.
 - 4.9 The mineral impurities shall be no more than 60 mg/kg based on diluted product of 8% solids.
 - 4.10 Addition of the following seasoning or flavouring is permitted:
Salt, natural vegetable products (basil leaf, onions, etc), Lemon juice (single strength or concentrated) used as an acidulant.
 - 4.11 Addition of sugar, sweeteners or any colouring or thickening agents to the products is not permitted.
 - 4.12 **Food Additives**
 - 4.12.1 pH Regulating agents
 - 4.12.1.1 Sodium hydrogen carbonate to raise the pH to a level not above 4.3.
 - 4.12.1.2 Citric acid
 - 4.12.1.3 Malic acid
 - 4.12.1.4 L. Tartaric acid
 - 4.12.1.5 Lactic acid
- } to maintain the pH at a level not above 4.3
- 4.13 **Contamination**

It shall not contain any poisonous elements more than the quantities specified in the following (ppm):

 - Arsenic 1.1

Lead	1.5
Copper	20
Zink	10
Tin	250

- 4.14 The limits of pesticide residues shall not exceed those stated in Gulf standards (items 2.8 and 2.9).
- 4.15 The microbiological limits shall be according to Gulf standard (item 2.10).
- 4.16 The levels of radioactivity shall not exceed those stated in Gulf standard (item 2.16).

5. SAMPLING

Samples shall be taken according to the Gulf standard (item 2.13) .

6. METHODS OF TESTING AND TESTS

6.1 Method of testing

- Determination of soluble solids shall be carried out according to GS to be approved by the organization (item 2.12).
- Determination of mineral impurities shall be carried out according to GS (item 2.11)
- Determination of contaminating elements shall be carried out according to GS (item 2.2).
- Determination of artificial colour shall be carried out according to GS (item 2.4)
- Determination of extraneous matter shall be carried out according to GS (item 2.6).
- Determination of the pH shall be carried out according to GS (item 2.7).
- Determination of the limits of pesticide residues shall be carried out according to GS (item 2.14).
- Detection of limits of radioactivity shall be carried out according to GS (item 2.17).

6.2 Tests

Tests shall be carried out in the preventative samples drawn according to item (5) to determine its compliance with limits of this standard.

7. PACKAGING TRANSPORTATION AND STORAGE

The following requirements shall be followed during packaging, transportation and storage:

7.1 Packaging

- 7.1.1 The product shall be packed in hygienic clean and hermetically sealed, free from mechanical leakage container so as to avoid any changes in its properties during storage.
- 7.1.2 In case of tin containers they shall be plated with coating suitable for canning tomato concentrates products and shall comply with the GS (item 2.15).
- 7.2 **Transportation**
Transportation shall be transferred in such away so as to protected containers from mechanical damage and continuation.
- 7.3 **Storage**
The product shall be stored at a well ventilated place far from source of direct heat, moisture and contamination

8. LABELLING

Without prejudice of the requirements mentioned in Gulf standards (item 2.1 and 2.5) the following information shall be declared:

- 8.1 In case of tomato concentrate products prepared form the liquid mentioned in 4.4.1 and 4.4.2 or any combination of them this fact shall be declared on the table.
- 8.2 When any of the optional ingredients is added , its presence shall be stated on the label.
- 8.3 In case of tomato concentrates mentioned in 3.1.1 and 3.1.2 this fact shall be declared on the label.
- 8.4 The concentration of natural tomato soluble solids in the product as percentage.
- 8.5 Storage conditions.