SRI LANKA STANDARD 1039 : 1995
UDC 613.287.9

SPECIFICATION FOR
CANNED WEANING FOODS

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
SPECIFICATION FOR CANNED WEANING FOODS

SLS 1039 : 1995

Gr 6

SRI LANKA STANDARDS INSTITUTION
17, Victoria Place,
Elvitigala Mawatha,
Colombo 8,
Sri Lanka

Sri Lanka Standard
SPECIFICATION FOR CANNED WEANING FOODS

FOREWORD

This standard was finalized by the Sectoral Committee on Agriculture and Food Technology - 1 and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 95-04-27.

Guidelines for the determination of compliance of a lot with the requirements of this standard based on statistical sampling and inspection are given in Appendix **A**.

During the formulation of this specification due consideration has been given to the relevant provisions made under the Sri Lanka Food Act No. 26 of 1980. Specific requirements given in this specification, wherever applicable, are in accordance with the relevant regulations. However, general provisions made under the Sri Lanka Food Act have not been included in this specification and therefore, the attention of the user of this specification is drawn to the general provisions made in the regulations framed under the Food Act.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the result of a test or an analysis shall be rounded off in accordance with **CS 102**. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this specification.

In the preparation of this specification, the valuable assistance derived from the following publication is gratefully acknowledged:
CODEX STAN 73 – 1981 Canned baby foods.
Model Food Regulations of National Health and Medical Research Council, Australia.

1 SCOPE

1.1 This specification prescribes the requirements and methods of test for canned weaning foods.

1.2 This specification does not include products covered by SLS 651 Infant Formulae or SLS 1036 Cereal based food supplement for infants and children.

2 REFERENCES

SLS 102 Presentation of numerical values
SLS 143 General principles of food hygiene
SLS 428 Random sampling methods
SLS 467 Labeling of prepackaged foods
SLS 516 Microbiological test methods
Part 10: Commercial sterility

Official methods of analysis of the Association of Official Analytical Chemists (AOAC), Thirteenth edition, 1980.

3 DEFINITIONS

For the purpose of this specification the following definition shall apply:

3.1 infant : A person not more than 12 months of age.

3.1 child : A person of age more than 12 months and up to 3 years.

3.3 weaning food : A food intended primarily for use during the normal infant's weaning period and the progressive adaptation of infants and children to ordinary food.

4 TYPES

Weaning foods shall be of following two types :

4.1 Ready-to-eat form: processed by heat before or after being sealed in the containers so as to prevent spoilage.

4.2 Dry form : processed by physical means to prevent spoilage requiring reconstitution with water only.

5 INGREDIENTS AND ADDITIVES

5.1 Ingredients

5.1.1 Any suitable nutritive material that is used, recognized or commonly sold as an article or ingredient of food, including spices.

5.2 Additives

Maximum limits are indicated per 100 g of the ready-to-eat product.

5.2.1	Thickening agents	
5.2.1.1	Locust bean gum	0.2 g
5.2.1.2	Guar gum	0.2 g
5.2.1.3	Distarch phosphate	6 g, singly or in combination
5.2.1.4	Acetylated distarch phosphate	
5.2.1.5	Phosphated distarch phosphate	
5.2.1.6	Hydroxypropyl starch	
5.2.1.7	Acetylated distarch adipate	
5.2.1.8	Distarch glycerol	
5.2.1.9	Acetylated distarch glycerol	
5.2.1.10	Non-amidated pectin	1 g, only in fruit based weaning foods
5.2.2	Emulsifiers	
5.2.2.1	Lecithin	0.5 g
5.2.2.2	Mono- and diglycerides	0.15 g
5.2.3	pH adjusting agents	
5.2.3.1	Sodium hydrogen carbonate	Limited by good manufacturing practices and within the limit for sodium in **6.2.2**
5.2.3.1	Sodium carbonate	
5.2.3.1	Potassium hydrogen carbonate	Limited by good manufacturing practices
5.2.3.1	Calcium carbonate	
5.2.3.1	Citric acid and Na salt	0.5 g and within the limit for sodium in **6.2.2**
5.2.3.1	L (+) Lactic acid	0.2 g
5.2.3.1	Acetic acid	0.5 g
5.2.4	Antioxidents	

5.2.4.1	Mixed tochopherols concentrate	300 mg /Kg fat, singly or in combination
5.2.4.2	Alpha-tochopherol	
5.2.4.3	L-Ascorbyl palmitate	200 mg/Kg fat
5.2.4.4	L-Ascorbic acid and its Na and K salts	0.5 g/Kg, expressed as ascorbic acid and within the limit for sodium in **6.2.2**

5.2.5 Flavors

5.2.5.1	Vanila extract	Limited by good manufacturing practice
5.2.5.2	Ethyl vanillin	7 mg
5.2.5.3	Vanillin	7 mg

6 REQUIREMENTS

6.1 General requirements

6.1.1 All ingredients shall be clean, of good quantity, safe, and with excessive fibre removed where necessary. Fish, meat and poultry ingredients shall be practically free of piece of bones.

6.1.2 The product shall be prepared, packed and stored under sanitary conditions as prescribed in **SLS 143.**

6.1.3 To the extent possible in good manufacturing practice the product shall be free from objectionable matter.

6.1.4 Ready-to-eat weaning foods shall be homogeneous or comminuted in one of the following forms :

(a) strained – food of a fairly uniform, small practice size which does not require chewing before being swallowed ;

(b) junior – food that ordinarily contains particles of a size to encourage chewing by infants and children.

6.1.5 Dr**y** weaning foods, after reconstitution with water or other suitable liquid, shall have the consistency and particle size of strained or junior foods given under **6.1.4.**

6.1.6 In the case of ready-to-eat weaning foods the fill of container when tested as in Appendix **B** shall be:

(a) not less than 80 per cent (V/V) for products weighing less than 150 g ;

(b) not less than 85 per cent (V/V) for products in the weight range 150 g to 250 g ; and

(c) not less than 90 per cent (V/V) for products weighing more than 250 g of the water capacity of the container. The water capacity of the container is the volume of ditilled water which the sealed container will hold when completely filled.

6.2 Compositional and nutritional requirements

6.2.1 The addition of vitamins and minerals shall conform to **6.2.2** to **6.2.6** and relevant legislation.

6.2.2 The total sodium content of the product shall not exceed 200 mg per 100 g of the ready-to-eat product when prepared as given in the label.

6.2.3 The amounts of sodium derived from the added vitamins and/or minerals shall be within the limit given in **6.2.2** when tested according to US flame photometry method using dry ashing at 525 ^{o}C to 550 ^{o}C.

6.2.4 Canned weaning foods other than fruit juices, fruit gels, fruit purees and fruit syrups may contain ascorbic acid, folate, niacin, riboflavin, thiamin and vitamin B 12 in not more than the quantity necessary to restore that lost in processing and during normal shelf life. No reference to the presence of such restoration vitamins shall be made in any advertisement or on the label.

6.2.5 Canned fruit juices, fruit gels, fruit purees and fruit syrups shall contain not less than 600 mg/Kg of vitamin C when prepared as given in the label and when tested according to the method given in the AOAC, XIII, 1980,43.060 or 43.061 to 43.067.

6.2.6 Canned fruit juices, fruit gels, fruit purees, fruit syrups and dessert products shall not contain any added sodium chloride.

6.3 Absence of contaminants

6.3.1 The product and its components shall not have been treated by ionizing radiation.

6.3.2 The product shall be prepared with special care under good manufacturing practices, so that residues of those pesticides which may be required in the production, storage or processing of the raw materials or the finished food ingredient do not remain, or, if technically unavoidable, are reduced to the maximum extent possible.

6.3.3 The product shall be free from residues of hormones and antibiotics as determined by means of agreed methods of analysis and practically free from other contaminants, especially pharmacologically active substances.

6.4 Microbiological quality

6.4.1 The product shall be free of microorganisms capable of growth in the product under normal non refrigerated conditions of storage and distribution. It shall satisfy the test for commercial sterility when tested as give in **SLS 516: Part 10.**

6.4.2 The product shall not contain any substances originating from microorganisms in amounts which may represent a hazard to health.

7 PACKAGING

The product shall be packed in containers which will safeguard the hygiene and other quantities of the food. Product in ready-to-eat form shall be packed in hermetically sealed containers; nitrogen and carbon dioxide may be used as packing media.

8 MARKING

8.1 Each container shall be marked or labelled legibly and indelibly with following :

a) Name of the product;

NOTE

The name of the product shall be that of the major or characterizing ingredient(s).

b) Form of the product as STRAINED or JUNIOR and following statement(s) as appropriate;

i In the case of strained foods the statement “suitable for infants between 4 and 8 months’’

ii In the case of strained foods of custard, gel or dessert type, the statement “suitable for infants from 4 months”

iii In the case of junior foods, the statement “suitable for infants from 6 months”

c) Brand /trade name;
d) Net contents, in g or in ml;
e) Name and address of the manufacturer/ packer/ distributor/ importer/ exporter/ vendor (including the country of origin);
f) Batch or code number;
g) Date of expiry;
h) List of ingredients, in descending order of production;

NOTES

1. Added vitamins and minerals shall be arranged as separate groups. Within these groups, the vitamin and minerals need not be listed in descending order of proportion.

2. The specific name shall be declared for ingredients and additives. Appropriate class names may also be included.

3. Nutrition information in the following order:

i. The amount of energy, expressed in kilocalories and/or kilojoules and the number of grams of protein, carbohydrate and fat per 100 grams of the food as sold as well as per specified quantity of the food as suggested for consumption.

ii. The total quantity in the final product of each vitamin and mineral added per 100 g as well as according to the serving size of the food suggested for consumption.

iii. Any other nutritional information required by legislation.

k) In the case of fruit juices, fruit gels, fruit purees, and fruit syrups the statement “100 g of this food when prepared as given in the label, contains not less than 60 mg of vitamin C which is twice the daily allowances of vitamin C for infants and young children” ;

m) In the case of canned beets (beetroot) and spinach, the statement “use after the age of 12 weeks”
n) Information for utilization; and
p) Storage instructions before and after the container has been opened.

8.2 Marking and labeling shall also be in accordance with **SLS 467.**

NOTE

Attention is drawn to certification facilities offered by the Sri Lanka Standards Institution. See the inside back cover of this standard.

9 METHODS OF TEST

Tests shall be carried out as given in 6.2.3, 6.2.5 and Appendix B of this specification.

APPENDIX A
COMPLIANCE OF A LOT

The sampling scheme given in this Appendix should be applied where compliance of a lot to the requirements of this standard is to be assessed based on statistical sampling and inspection.

Where compliance with this standard is to be assured based on manufacturer's control systems coupled with type testing and check tests or any other procedures, appropriate schemes of sampling and inspection should be adopted.

A.1 LOT

In any consignment all the containers or packages of same type, size and belongings to one batch of manufacture shall constitute a lot.

A.2 GENERAL REQUIREMENTS OF SAMPLING

In drawing, preparing, storing and handling samples the following precautions and directions shall be observed:

A.2.1 Samples shall be drawn in a protected place not exposed to damp air, dust or soot.

A.2.2 The sampling instruments shall be clean and dry when used.

A.2.3 The samples shall be protected against adventitious contamination.

A.3 SCALE OF SAMPLING

A.3.1 Number of containers to be selected from a lot shall be in accordance with Table **1.**

A.3.2 The containers shall be selected at random. In order to ensure randomness of selection, random number tables as given in **SLS 428** shall be used.

TABLE 1 – Scale of sampling

Number of containers in the lot (1)	Number of containers to be selected (2)
Upto 500	06
501 to 1 200	07
1201 to 5 200	08
5201 to 10 000	10
10 001 and above	12

A.4 NUMBER OF TESTS

A.4.1 Each container selected in **A.3.1** shall be inspected for packaging and marking requirements.

A.4.2 Three containers shall be selected from the containers inspected as in **A.4.1** and tested for commercial sterility as given in **6.4.1.**

A.4.3 Remaining containers shall be tested individually for the requirement given in **6.1.6.**

A.4.4 Material of the containers tested as in **A.4.3** shall be mixed to form a composite sample and tested for the requirements given in **6.1.3, 6.1.4, 6.1.5, 6.2.3** and **6.2.5.**

A.5 CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied:

A.5.1 Each container examined as in **A.4.1** satisfies the relevant requirements.

A.5.2 Containers tested as in **A.4.2** satisfy the relevant requirement.

A.5.3 Containers tested as in **A.4.3** satisfy the relevant requirement.

A.5.4 The test results of the compost sample tested as in **A.4.4** satisfy the relevant requirements.

APPENDIX B
DETERMINATION OF THE FILL OF CONTAINER

B.1 PROCEDURE

B.1.1 Select a container which is undamaged in all respects. Carefully cut out the lid without altering the height of the seam. Mark the level of contents. Wash, dry and weigh the empty container.

B.1.2 Fill the container with distilled water up to 4.8 mm vertical distance below the top level of the container, if the can has a double seam. Fill up to the top for other containers. Weigh the filled container.

B.1.3 Draw off water from the filled container to the level of the contents. Weigh the can with water up to the level of the contents.

B.2 CALCULATION

$$\text{Fill of the container, per cent by volume} = \frac{m_1 - m_0}{m_2 - m_0} \times 100$$

Where,

m_1 is the mass, in g, of the container with water up to the level of contents (**B.1.3**) ;

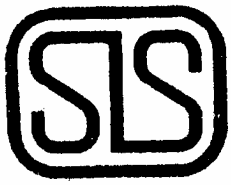
m_2 is the mass, in g, of the container filled with water (**B.1.2**) ;

m_0 is the mass, in g, of the empty container (**B.1.1**).

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*



Printed at SLSI (Printing Unit)

SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

Printed at the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.