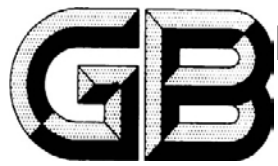


GB 22570-2014 Complementary Food Supplement



National Standards of People's Republic of China

GB 22570-2014

**National Food Safety Standard
Complementary Food Supplement**

Issued on: 2010-04-29

Implemented on: 2014-11-01

Issued by National Health and Family Planning Commission

Foreword

This standard supersedes GB/T 22570-2008 Complementary Food Supplement National Standard

Compared with GB/T 22570-2008, the following changes have been made to the Standard:

- Standard name are modified;
- Standard structure are modified;
- Technical demanding are modified;
- Labeling requirements are modified;
- Delete Annex A and B in the previous standard.

National Standard for Food Safety

Complementary Food Supplement

1. Scope

This Standard applies to complementary food supplement for infants from 6 months to 36 months, and children from 37 months to 60 months.

2. Terms and Definitions

2.1 Food supplement:

Food supplement refers to additional foods to meet nutritional needs for more than 6-month-old infants and young children who are continuing to breast feed. The foods come by both family prepared and factory production

Refer to persons of 0 ~ 12 months old.

2.2 Complementary food supplement:

A kind of supplements full of micronutrients (vitamins and minerals), with or without the food matrix and other complementary food, add in the instant food supplement for infants from 6 months to 36 month old, and young children from 37 months to 60 months old as well. Now the common types are: complementary feed nutrient supplements, complementary micronutrient supplements and complementary micronutrients reagents.

2.2.1 Complementary feed nutrient supplements

Food matrix based on one or more of soybean, soy protein, milk and milk protein products, made from complementary feed nutrient supplements by adding micronutrients and (or) other supplements. Food shape can be powder, granular or semi-solid, and the food matrix could provide part of high quality protein.

2.2.2 Complementary micronutrient supplement tablets

Food matrix based on one or more of soybean, soy protein, milk and milk protein products, made from flake complementary food supplements by adding micronutrients and (or) other supplements. The supplements are breakable or easily dispersed.

2.2.3 Complementary micronutrients supplement sprinkles

Powdered or granular complementary nutritional supplements mixed by multiple-micronutrient, may without food matrix.

3. Technical Requirements

3.1 Daily recommended amount of complementary food supplement

Complementary feed nutrient supplements are of 10.0g ~ 20.0g, complementary micronutrient supplement tablets are of 1.5g ~ 3.0g, and complementary micronutrients sprinkles are of 0.8g ~ 2.0g

3.2 Requirements for raw materials

3.2.1 Food matrix shall be take instant edible food as raw materials, and its quality shall meet the relevant standards and (or) regulations

3.2.2 Soybean and soybean-based products shall be under the process of high-temperature treatment to eliminate the anti-nutritional factors such as trypsin inhibitors, etc.

3.2.3 Food accessories shall meet the relevant standards and (or) regulations

3.3 Sensory requirement

The color, taste, smell and organization status of complementary food supplements shall conform to the relevant product specifications, and shall be no visible extraneous matter

3.4 Essential components

In complementary foods supplement, protein content shall be no less than 25g/100g, test method shall followed by GB 5009.5, and protein content calculation shall be Nitrogen (N) * 6.25

Other nutrients content in complementary food supplement shall convert into daily content and be consistent with the requirements of Table 1

Table 1: Required components

Nutrition	Daily content			Test method
	6 – 12 months	13 – 36 months	37 – 60 months	
Calcium/(mg) ^a	120 ~ 240	180 ~ 360	180 ~ 360	GB 5413.21
Iron/(mg)	3.0 ~ 9.0	3.6 ~ 10.8	3.6 ~ 10.8	GB 5413.21
Zinc/(mg)	2.0 ~ 6.0	2.0 ~ 7.0	2.0 ~ 7.0	GB 5413.21
Vitamin A/(μ g RE) ^b	120 ~ 360	150 ~ 450	150 ~ 450	GB 5413.9
Vitamin D/(μ g) ^c	3.0 ~ 9.0	3.0 ~ 9.0	3.0 ~ 9.0	GB 5413.9
Vitamin B ₁ /(mg) ≥	0.12	0.24	0.24	GB 5413.11
Vitamin B ₂ /(mg) ≥	0.2	0.24	0.24	GB 5413.12
a. Applies only to food supplementary nutrition in supplement foods b. RE equivalent to retinol. 1 μ g RE = 3.33 IU, Vitamin A = 1 μ g all-TRANS retinol (Vitamin A). Vitamin A only includes preformed retinol, and when in calculating and claiming vitamin A activity shall exclude any component of β -carotene c. Calciferol, 1 μ g vitamin D = 40 IU vitamin D				

3.5 Optional components

In addition to the essential components in 3.4, if one or more nutrients listed in Table 2 can be selected to add or claimed on label, whereas the content of such nutrients converted in to daily content shall meet the specification of Table 2

Table 2: Optional components

Nutrition	Daily content			Test method
	6 – 12 months	13 – 36 months	37 – 60 months	
Calcium/(mg) ^a	120 ~ 240	180 ~ 360	180 ~ 360	GB 5413.21
Vitamin K ₁ /(µg)	3.0 ~ 9.0	4.5 ~ 13.5	4.5 ~ 13.5	GB 5413.10
Hydrochloric acid (Nicotinamide) /(mg) ^b	1.2 ~ 6.0	2.4 ~ 6.0	2.4 ~ 6.0	GB 5413.15
Vitamin B ₆ /(mg) ≥	0.12	0.20	0.20	GB 5413.13
Folic acid/(µg)	18.8 ~ 150	35.3 ~ 150	35.3 ~ 150	GB 5413.16
Vitamin B ₁₂ /(µg) ≥	0.2	0.36	0.36	GB 5413.14
Pantothenic acid/(mg) ≥	0.72	0.8	0.8	GB 5413.17
Choline/(mg) ≥	60	80	80	GB 5413.20
Biotin/(µg) ≥	2.4	3.2	3.2	GB 5413.19
Vitamin C/(mg) ≥	20	24	24	GB 5413.18
22 decosahexaenoic acid/(mg)	30 ~ 90	30 ~ 90	30 ~ 90	GB 5413.27
a. Applicable to complementary nutrients sub agent and food supplement nutrition supplements b. Niacin does not include precursors				

3.6 Limits of contaminants

The limit of contaminants shall meet the specification of Table 3

Table 3: Indices of Contaminants

Item	Index	Test Method
Lead/(mg/kg) ≤	0.5	GB 5009.12
Total arsenic ≤	0.5	GB/T 5009.11
Nitrate (based on NaNO ₃) ^a ≤	100	GB 5009.33
Nitrate (based on NaNO ₂) ^b ≤	2	GB 5009.33
a. Not applicable for products with fruits and vegetables b. Only applicable to milk-based infant formulas		

3.7 Limit of mycotoxin

The limit of mycotoxin shall meet the specification of Table 4

Table 4: Limit of Mycotoxin

Item	Index	Test Method
Aflatoxin M ₁ ^a (µg/kg) ≤	0.5	GB 5009.24
Aflatoxin B ₁ ^b (µg/kg) ≤	0.5	
a. Aflatoxin M1 only for milk-based products b. Aflatoxin B1 only for cereal, peanuts and soybean-based products		

3.8 Limit of microorganisms

The limit of microorganisms shall meet the specification of Table 5

Table 5: Limit of Microorganisms

Item	Sampling plan ^a and limit (Unless specified otherwise, it shall be expressed in cfu/g or cfu/ml)				Test Method
	n	c	m	M	
Total plate count	5	2	1000	10000	GB 4789.2
Coliform bacteria	5	2	10	100	GB 4789.3 plate count method
Salmonella	5	0	0/25g	-	GB 4789.4
a. Sample analysis and handling shall comply with GB 4789.1					

3.9 Food additives and nutrition fortifiers

3.9.1 The use of food additives shall conform to GB 2760 requirements

3.9.2 The use of nutrition fortifiers shall conform to GB 14880 requirements, among which the ethyl diamine tetra sodium acid daily dosage in terms of iron shall not exceed 2.8mg

3.9.3 Quality of food additives and nutrition fortifiers shall be consistent with relevant safety standards and requirements

3.10 Urease activity

The urease activity of products containing soy component shall be consistent with the provisions of Table 6

Table 6: Indices of Urease Activity

Item	Index	Test Method
Qualitative determination of urease activity	Negative	GB 5413.31

4. Labels

4.1 Product labels shall comply with the provisions of GB 13432, and mark 'food supplements' and (or) the corresponding category of 'complementary feed nutrient supplements', 'complementary micronutrient supplement tablets' and 'Complementary micronutrients supplement sprinkles'

4.2 Label shall be identified by the different month, and mark 'this product add micronutrients, please pay attention to eat with other similar products'. If the products face to the infants from 6 ~ 36-month-old, the label shall be marked 'this product is not a substitute for breast milk and infant food aid'