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## **China - Peoples Republic of**

**Post:** Beijing

## National Food Safety Standard for Use of Food Additives

Report Categories: FAIRS Subject Report Approved By: Michael Riedel Prepared By: M. Meador and Ma Jie

## **Report Highlights:**

On March 15, 2013, China's National Health and Family Planning Commission (previously Ministry of Health) released National Food Safety Standard – National Food Safety Standard for Use of Food Additives (Draft for Public Comment). On March 27, China notified to the WTO the Draft Standard as SPS N CHN 602. Comments may be made to China's SPS Enquiry Point before May 26, 2013. The Standard is a revision of the National Food Safety Standard for Use of Food Additives (GB 2760-2011), which was released on April 20, 2011, and came into effect on June 20, 2012. The standard was notified to the WTO as SPS N CHN 308.

Translation of the full text of GB 2760-2011 can be found in two GAIN reports, CH11037 and CH11038.

## **General Information:**

## **BEGIN TRANSLATION**

I. Basic Information of the Standard Development (including procedure and standard drafters)

The project of developing "National Food Safety Standard for Uses of Food Additives" (GB 2760-2011) was initiated in the MOH 2011 Project Plan for National Food Safety Standards Development and Revision (Second Batch). The standard revision was led by the National Center for Food Safety Risk Assessment (CFSA) with the joint participation of the China National Food Industry Association, China Association of Bakery and Confectionary Industry, Quality and Standard Center of the State Grain Administration, China Food Additives and Ingredients Association, China Dairy Industry Association and China Beverage Industry Association.

In 2012, CFSA established a standard revision Working Team (hereinafter referred to as the "Working Team"). The Working Team discussed principles and tasks of the revision, analyzed and referred to CODEX standards and standards adopted by other countries; the Working Team conducted investigations into the actual use of food additives in China, the necessity of food additives in each category of food, the rational of the food categorization system, and the food additive standard research system. The Working Team completed risk assessment using food intake data and actual food additive use of food additives obtained in a Chinese household nutrition survey. During the process, the Working Team held over a dozen meetings in which, they revised the scope of food additives and principles of use, adjusted provisions of use for some food additives in Annex A, Annex D, and improved the food categorization system.

Drafters of the standard include: Wang Zhutian, Zhang Jianbo, Wang Huali, Zhang Jiyue, Luo Pengjie, Ding Shaohui, Li Yunan, Yue Zengjn, Xue Yi, Li Yue, Zhang Jiukui, Zhao Yanping, Kang Yongpu, Yang Yonglan, Xie Huamin and Zhu Zhiguang.

- II. Important content of the standard and major revisions
  - 1. Revision of Nutritional Fortification Substances Use in GB 2760

As MOH has issued the "Standard for Use of Food Nutrition Fortification" (GB14880-2012), the current revision removed relevant provisions of nutritional fortification substances.

2. Revision of the "Carry-over Principles"

Revision of the carry-over principles in GB2760 mainly referred to Article 4.2 of CODEX GENERAL STANDARD FOR FOOD ADDITIVES 192-1995 - "An additive may be used in or added to a raw material or other ingredient if the raw material or ingredient is used exclusively in the preparation of a food that is in conformity with the provisions of this standard, including that any maximum level applicable to the food is not exceeded," provisions of the carry-over principles in EU/Australia and New Zealand standards, as well as considerations of the actual condition of the food industry in China.

After multiple discussions, the Working Team suggested adding the following content to 3.4 of the revised GB2760, Carry-over Principles: 3.4.2 An additive allowed in aforementioned finished products can be added to ingredients of the food; meanwhile, content of the food additive in the finished product shall be in conformity with the provisions of this standard. Label of the specific ingredient shall clearly mark that the food additive is

used for production of the specific food.

- 3. Revision of Annex A
- 3.1 Revision of aluminum-containing food additives in GB2760

The 74<sup>th</sup> JECFA conference in June 2011 revised PTWI of aluminum to 2mg/kg body weight, and revoked the previously adopted PTWI of 1mg. In 2011, CFSA, referring to the latest JECFA assessment, conducted a risk assessment into aluminum in foods. The assessment shows that aluminum intake of Chinese total population was lower than the FECFA proposed PTWI (2mg/kg body weight/week). However, the aluminum intake in the low age group and the high-food consumption group both exceeded the PTWI. The assessment revealed that flour powder and its products were the major sources of aluminum in food. It deserves noting that in North China, due to high flour consumption, 60% of residents' aluminum intake exceeds the PTWI. Comparatively speaking, aluminum intake in China is higher than that in other countries, which calls for measures to reduce aluminum intake to avoid possible consequential health risks.

Based on the risk assessment, MOH released General Office Letter [2012] No.293 on April 1, 2012 to solicit public comments on 13 aluminum-containing food additives that are listed in the National Food Safety Standard for Use of Food Additives (GB2760-2011), and requested CFSA to include this in the revision of GB2760-2011. Based on the risk assessment results, CFSA systematically analyzed comments collected on the 13 aluminum-containing food additives, and organized relevant industry associations to conduct investigations into actual use of such additives. Based on the investigations and referencing CODEX standard and other foreign standards, CFSA suggested the revision of 9 additives, removal of 3 food additives and their use provisions as follows:

1) Revision of use provision of aluminum potassium sulfate and aluminum ammonium sulfate

(1) Revision of use provision of aluminum potassium sulfate and aluminum ammonium sulfate in "wheat flour and its products"

The risk assessment about aluminum exposure in foods reveals that among all foods, aluminum content in flour products is the highest; among which, wheat flour, steam bread and deep-fried dough sticks contribute the most to aluminum exposure. Referring to both CODEX and foreign standards of aluminum-containing food additives and comments MOH collected, the Working Team suggested revising the scope of use of the two additives from "wheat flour and its products" to "fermented flour products, deep-fried flour products, batter (such as pasty on fish and poultry meat), coating powder and deep-fry powder. Responding to the Working Team's comment solicitation, China National Food Industry Association reported that industrialized production of fermented flour products (such as steam bread) does not need the two additives (they are replaced by yeast, baking powder and complex rising agents). Therefore, the Working Team suggested removing the use provisions of the two additives used as bulking agents in fermented flour products.

As a result, the instant revision suggested to change the scope of use of the two additives from "06.03 Wheat flour and its products" to "06.03.02.05 Deep-friend flour products" and "06.03.02.04 Batter (such as batter on fish and poultry meat), coating powder and deep-fry powder," their volume of use and residue remain the same.

(2) Revision of use provision of aluminum potassium sulfate and aluminum ammonium sulfate in "Fish and fishery products"

Responding to MOH's public notice on April 1, 2012, some entities reported that aluminum potassium sulfate and aluminum ammonium sulfate are mainly used in jelly fish, and suggested the revision of the calculation of their residue. Based on the comments, the Working Team suggested a revision of "09.0 Fish and fishery products" to "09.03.02 Preserved fish products (only jelly fish)," and suggested to further research residue and residue

calculation methods of aluminum in jelly fish products. The Working Team entrusted China Aquatic Products Processing and Marketing Alliance in Zhejiang and Guangdong to conduct research into the use of the two additives in processing jelly fish, intrinsic content of aluminum in jelly fish, amount of use/calculation method, aluminum content in finished products, and necessity of the additives, etc. The two allied branches proposed aluminum-containing additives use in jelly fish as: aluminum residue in jell fish shall be 1,000mg/kg (Al, wet weight). CFSA holds that the residue level would cause higher health risk to consumer groups that often eat jelly fish. To protect such consumers, CFSA suggested keeping the original aluminum residue in jelly fish. Based on the assessment, the Working Team suggested revising the scope of use of aluminum potassium sulfate and aluminum ammonium sulfate from "09.0 Fish and fishery products" to "09.03.02 Preserved fish products (only jelly fish)," residue level set at 100mg/kg (dried sample, Al).

2) Revision of use provision of synthetic colorant aluminum lakes

Aluminum oxide is used as carrier of synthetic colorant aluminum lakes. Aluminum intake from colorant aluminum lakes is very low and can be controlled by limiting use of colorants. Therefore, referring to CODEX standards and actual use of synthetic colorant in other countries, the Working Team suggested keeping its use provision and will not develop separate use provisions of aluminum in aluminum lakes.

(1) Remove use provisions of 12 aluminum-containing food additives in puffed foods

Risk assessment of aluminum exposure of Chinese residents shows that among children between 7 and 14 years of age, aluminum intake from puffed foods is high, and the intake increases as age decreases. Therefore, the assessment draws the conclusion that puffed foods are one of the major sources of aluminum intake for the group. To protect children's health, the Working Team suggested removing all aluminum-containing food additives (including synthetic colorant aluminum lake) in puffed foods, and only keep the use provisions of synthetic colorants. Synthetic colorants that are involved are: erythrosine and its aluminum lake, indigotine and its aluminum lake, brilliant blue and its aluminum lake, tartrazine and its aluminum lake, sunset yellow and its aluminum lake, ponceau 4R and its aluminum lake, allura red and its aluminum lake. In the "Note" column, provisions shall be added for use in puffed foods as "Only allow the use of erythrosine," "Only allow the use of brilliant blue," "Only allow the use of allow the use of allow the use of sunset yellow," "Only allow the use of ponceau 4R, "Only allow the use of allora red."

(2) Sodium aluminum phosphate-acidic, sodium aluminosilicate and starch aluminum octenylsuccinate

Remove the aluminum-containing food additive varieties of sodium aluminum phosphate-acidic, sodium aluminosilicate and starch aluminum octenylsuccinate, and delete their use provisions.

To reduce aluminum intake and varieties of aluminum-containing food additives, the Working Team suggested replacing sodium aluminosilicate and starch aluminum octenylsuccinate with other food additives of similar functions. Sodium aluminum phosphate-acidic is one of the 38 food additives MOH suggests be removed from use, and its use is similar to that of sodium aluminosilicate and starch aluminum octenylsuccinate. Therefore, the Working Team suggested the removal of the 3 food additives and their use standard.

3.2 Revision of 38 food additives MOH planned to revoke from use

Pursuant to Food Safety Law and "Administrative Measures of New Variety of Food Additives," on January 1, 2012, MOH issued a notice to solicit public comments on safety and technical necessity of 55 food additives in GB2760-2011, and learned that 17 are still in production and use. MOH again solicited public comments on necessity of the remaining 38 food additives (including 2,4-dichlorophenoxy acetic acid), and planned to include changes in use provisions of the 38 food additives into revision of the GB2760-2011 standard.

In comment solicitation, the Working Team received 305 comments from 132 entities and individuals. After analysis and investigation by industry association about their use and technical necessity, and referring to CODEX and foreign standards, the Working Team suggested removing 14 food additives and their use provisions, and keeping 24 food additives and their use standards. Please see Annex 1 for the revision result.

3.3 Revision of food additive use provisions in Annex A of GB2760-2011

CFSA developed the "Form of Technique-Necessity of Food Additives in GB2760-2011." With assistance by industry associations, the form was filled by members of the Working Team.

Referring to food additive use provisions in CODEX and foreign standards, and based on information obtained from relevant industry associations, the Working Team revised use provisions of some food additives, and outlined technique-necessity principles of food additive use in some food categories.

After the assessment, the Working Team suggested removing some food additives that are not technically necessary in some food categories, which involves 50 use provisions of 37 food additives (please refer to Annex 2 for details).

Referring to GSFA provisions and food additive use in China, the Working Team revised use provisions of some food additives, which involves 13 additives (please refer to Annex 3 for details).

1. Revision of Annex C - Usage regulations for food processing aid

In revising the standard, China Food Additives and Ingredients Association reported that polyoxypropylene glycerol ether (GP), polyoxypropylene oxyethylene glycol ether (GPE) and sucrose polyoxypropylene ester are antifoaming agents in production of soybean products and fermented products; in recent years, they have been replaced by better products and are no longer used nor produced. Therefore, the three processing aids are no longer necessary in food production. Therefore, the Working Team suggested deleting the three processing aids and their use provisions from GB2760.

2. Revision of Annex D - List of gum-based substances

As China is developing the National Food Safety Standard – General Standard of Gum-Based Substances, the Working Team suggested removing Annex D and including the part to the new national food safety standard.

3. Revision of Food Categorization System

Referring to GSFA categorization and relevant industry associations' practice, the Working Team developed the food categorization system, which is more appropriate for the Chinese food industry.

CFSA formulated the "Form of Food Categorization System Status in GB2760-2011." With assistance from industry associations, the form was completed by members of the Working Team. The form solicited information regarding to categories to be revised, basis of categorization and descriptions of the categories.

After information collection, the Working Team suggested expanding food categories (from 16) to 37 (please refer to Annex 4).

1) Provide content of MOH public notices

As food additives must satisfy two criteria: necessary in technique and risk assessment proven-safety, the Working Team suggested including MOH public notices about food additives into the revised standard, which are

MOH Public Notice [2010] No. 16, [2010] No. 23, [2012] No.1, [2012] No. 6, [2012] No. 15 and [2013] No. 2.

2) Revision of other editorial content.

## III. International Standards

The revision referred to the following international standards:

- 1. CODEX GENERAL STANDARD FOR FOOD ADDITIVES CODEX STAN 192-1995 (GSFA);
- 2. Regulation (EC) No 1333/2008
- 3. Australia New Zealand Food Standards Code Standard 1.3.1
- 4. Japan's Specifications and Standards for Food Additives
- 5. United States 21CFR about food additive use provisions

## Annex:

- 1. Revision of 38 Food Additives That MOH Planned to Remove from the Standard
- 2. Food Additive Use Provisions to be Deleted Because They Are No Longer Necessary in Production
- 3. Use Provisions of Some Food Additives
- 4. Food Categories Suggested for Revision

## Annex 1

#### Revision of 38 Food Additives That MOH Planned to Remove from the Standard

I.	Food Additive Varieties Suggested for Removal					
No.	Food additive	Reason of removal				
1.	octylphenol polyoxyethylene	No comment received, indicating no company is using the additive in production; pursuant to provisions of the "Food Safety Law" on technique necessity, it is				
2.	β-naphthol	suggested to remove the additives from the standard.				
3.	secondary butyamine					
4.	sodium 2-					
	phenylphenol					
5.	4-phenylphenol					
6.		As the variety can be covered by the mono and di-glycerides of esters of fatty acids, it duplicates with the scope of the mono and di-glycerides of esters of fatty acids in GB2760, and shall be removed.				
7.	glycyrrhiza	The variety has been included into the "List of Products that are both Foods and Drugs", and is not eligible to be regulated as food additives; therefore, it is suggested				

		to remove the variety from this standard.			
8.	mesona chinensis	It can be replaced by other additives of similar functions also in the scope of mesona			
	benth extract	chinensis benth extracts; in addition, it is not in the scope of food additive, and			
		following the principle of technically necessary, the Working Team suggested			
		removal of the additive in GB-2760			
	fenugreek gum	Comments reveal that the two additives are only used as auxiliary material for food			
10.	ablmoschus manihot	flavoring production, and suggested including the two additives in the standard of			
	gum	"Food Flavoring" and remove from GB2760. It can be used as auxiliary material for			
		food flavoring, but is not listed in GB2760.			
11.	sodium aluminum	To reduce aluminum intake and varieties of aluminum-containing food additives, the			
	phosphate-acidic	Working Team studied CODEX and foreign standards and investigated into actual use			
		of aluminum-containing food additives. Based on which, it suggested removal of			
10	4 1 . h	sodium aluminum phosphate-acidic and its use provisions.			
	tanoak brown	No international standard covers the three colorants, nor does any Chinese food manufacturer use them; output data of the additives provided by the China Food			
13.	tea yellow pigment tea green pigment	Additives and Ingredients Association show that the additives are neither produced			
14.	tea green pigment	nor sold in China; therefore, the Working Team suggested removal of the three			
		colorants.			
II. F	Food additives suggeste	ed to be kept in GB2760			
1.	Methyl cellulose				
2.	Karaya gum				
3.	Metatartaric acid				
4.	Ice structuring protein				
5.	Sodium phytate				
6.	Chitin				
7.	2,4-dichlorophenoxy acetic acid				
8.	Diphenyl ether (diphenyl oxide)				
	4-hexylresorcinol				
_	Glutamine transamina	se			
	Orange yellow				
	Black currant red				
_	Basella rubra red				
-	Buddleia yellow				
	Mulberry red				
	Hippophae rhamnoides yellow				
	5 10				
	Acorn shell brown				
	Sodium and potassium salts				
	Corn yellow Spirulina blue (algae blue, lina blue)				
	Uguisukagura red				
	Rose laevigata michx	brown			
-	Peanut skin red				
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No.	Food additive	Categorization No.	<b>d Because They Are No Longer</b> F Food Categorization	Maximum Level (g/kg)
1.	Karaya gum	01.01.03	Recombined milk	Appropriate level as required in production
2.	Sodium starch phosphate	06.0	Grain and grain products, including rice, flours, miscellaneous grain crops and starches from roots and tubers, maize and legumes, (exclusive of 06.01 crude cereals and 07.0 bakery product)	Appropriate level as required in production
3.	Butylated hydroxyanisole (BHA)	06.04.01	Cereal flour	0.2
4.	Tanoak brown	14.04.01.01	Cola type carbonated drink	1.0
	metabisulphite, sodium	06.05.02.01	**	0.1 (Maximum level is measured as residue level of sulfur dioxide)
	sulfite, sodium hydrogen sulfite, sodium hyposulfite	06.02.04	Rice flour product (limited to rice flour cake)	0.05 (Maximum level is measured as residue level of sulfur dioxide)
6.	Black currant red	14.04.01	Carbonated drink	Appropriate level as required in production
7.	Fenugreek gum	06.03.01	Wheat flour	0.3
8.	Chitin	14.03.01.03	Lactobacillus drink	2.5
9.	Curcumin	02.02.01.02	Margarine and similar products (e.g., butter-margarine blends)	Appropriate level as required in production
10.	Caramel color (ammonia process)	14.08	Other beverages (limited to chicken essence drink)	Appropriate level as required in production
11.	Caramel color, (plain)	14.08	Other beverage (limited to chicken essence drink)	Appropriate level as required in production
	Caramel color, (ammonia sulphite process)	14.08	Other beverage (limited to chicken essence drink)	Appropriate level as required in production
	Rose laevigata michx brown		Carbonated drink	1
14.	Polyoxyethylene xylitan monostearate	02.01.01.02	Hydrogenated vegetable oil	5.0
15.	Soluble soybean polysaccharide	12.0	Condiment	10.0
16.	Paprika red	02.02.01.02	Margarine and similar products (e.g., butter-margarine blends)	Appropriate level as required in production
17.	Paprika orange	12.05	Bean paste, wheat paste and derivatives	Appropriate level as required in production
18.	Radish red	12.05	Bean paste, wheat paste and derivatives	in production
19.	Uguisukagura red	14.02.03	Fruit and vegetable juice (nectar) drink (including fermented	1

Food Additive Use Provisions to be Deleted Because They Are No Longer Necessary in Production

1 1			product, etc.)	
		14.04.02.02	Flavored drinks, including fruit flavor drink, milk flavor, tea flavor, coffee flavor or other flavor drink (limited to fruit juice drink)	1.0
	Brilliant blue, brilliant blue aluminum lake	12.09.01	Spices	0.01 (As per brilliant blue)
21.		02.0	Fats and oils and fat emulsions	0.2
	Dilauryl thiodipropionate	02.01	Fats and oils essentially free from water	0.2
22.	Sulfur (sulphur)	06.05.02.01	Noodles and vermicelli made from bean or sweet potato starch	0.1 (Noodles and vermicelli made from bean or sweet potato starch, as per sulfur dioxide residue)
23.	Basella rubra red	14.04.01	Carbonated drink	0.13
24.		14.02.03	Fruit and vegetable juice (nectar) drink (including fermented product)	in production
	Buddleia yellow	14.04.02.02	flavor drink (limited to fruit	Appropriate level as required in production
25.	Sucralose	14.02.02	Concentrated fruit/vegetable juice (pulp)	1.25
26.		14.02.03	Fruit and vegetable juice (nectar) drink (including fermented product)	
	Mulberry red	14.04.02.02	Flavored drink (including fruit- flavor drink, milk-flavor, tea- flavor and other flavor drinks) (only in fruit-flavored drink)	
27.	Sodium diacetate	06.02.01	Rice	0.2 (residue ≤30mg/kg)
		02.01	Fats and oils essentially free from water	1.0
28.		12.04	Soy sauce and derivatives	1.0
		14.02.03	Fruit and vegetable juice (nectar) drink (including fermented product)	
	Jujube pigment	14.04.02.02	Flavored drinks, including fruit flavor drink, milk flavor, tea flavor, coffee flavor or other flavor drink (limited to fruit flavor drink)	1
29.	Sodium saccharin	14.0	Beverage (except for 14.01 packaged drink water)	0.15 (as per saccharin; for powdered drink, increase use by times of dilution)
30.	Deacetylated	06.02.01	Rice	0.1

	chitin(chitosan)			
31.	Acorn shell brown	14.04.01.01	Cola type carbonated drink	1
32.	Carmine cochineal	02. 03	Fat emulsions other than food category 02.02, including mixed and/or flavored products based on fat emulsions	0.6 (only margarine)
33.	Mynica red	12.10.02	Semi-powdered blended condiment	0.2
34.	Chlorophyllin copper complex, sodium and	14.0	Beverage (not including	0.5 (for powdered drink, increase use by times of dilution, not including fruit and vegetable juice (nectar); only allow the use of chlorophyllin copper complex
	potassium salts	14.02.03	product)	only allow the use of chlorophyllin copper complex
35.		01.06	Cheese	0.8
		12.09.01	Spices	0.8
	Spirulina blue (algae blue,	14.02.03	Fruit and vegetable juice (nectar) drink (including fermented product)	0.8
	lina blue)	14.04.02.02	Flavored drinks, including fruit flavor drink, milk flavor, tea flavor, coffee flavor or other flavor drink (limited to fruit flavor drink)	0.8
	Phytic acid (inositol hexaphosphoric acid),sodium phytate	14.02.03	Fruit and vegetable juice (nectar) drink (including fermented product)	0.2
37.	Vegetable carbon, carbon	06.02.02	Rice product	5.0
	black	06.03.02	Wheat flour product	5.0

## Annex 3

## Use Provisions of Some Food Additives

1. Neotame			
Categorization No.	Hood ( 'ategorization	Maximum Level (g/kg)	Note
01.03.02	Recombined milk powders and cream powder, including flavoring milk powder and cream powder	0.065	
01.05	Cream and like product (exclusive of 01.05.01 cream)	0.033	
01.07	Milk-based flavor dessert or recombined product (not including ice cream and flavored yoghurt)	0.1	
01.06.05	Cheese like product	0.033	

02.03	Fat emulsions other than food in 02.02, including mixed and/or flavored products based on fat emulsions	0.01	
02.04	Fat dessert	0.1	
03.0	Frozen drink (exclusive of edible ice in 03.04)	0.1	
04.01.02.01	Frozen fruit	0.1	
04.01.02.02	Dried fruit	0.1	
04.01.02.03	Fruit processed with vinegar, oil, or salt	0.1	
04.01.02.04	Canned fruit	0.033	
04.01.02.05	Jams, marmalades	0.07	
04.01.02.06	Fruit paste	0.07	
04.01.02.07	Jam other than in 04.01.02.05 (e.g. chutney)	0.07	
04.01.02.08	Candied and preserved fruit	0.065	
04.01.02.09	Decorative fruit	0.1	
04.01.02.10	Fruit dessert, including fruit flavor dessert in liquid form	0.1	
04.01.02.11	Fermented fruit product	0.065	
04.01.02.12	Cooked or fried fruit	0.065	
04.02.02	Processed vegetable	0.033	
04.02.02.03	Pickled vegetable	0.01	
04.03.02.03	Pickled edible fungi and algae	0.01	
04.03.02.04	Canned edible fungi and algae	0.033	
04.03.02.05	Boiled or fried edible fungi and algae	0.033	
04.03.02.05	Other processed edible fungi and algae	0.033	
04.05.02.04	Nut or seed paste, including peanut butter	0.033	
05.0	Cocoa product, chocolate and chocolate products (including chocolate and chocolate products with cocoa butter alternatives) and candy (exclusive of 05.02 candy)	0.1	
05.02.01	Gum-based candy	1.0	
05.02.02	Other candy except for gum-based candy	0.33	
06.06	Instant cereals, including rolled oats	0.16	
06.09	Cereal and starch dessert (such as rice pudding, cassava pudding)	0.033	
07.0	Baked food	0.08	
07.04	Baked food stuffing and food flour batter	0.1	
10.04	Other egg product	0.1	
11.04	Table-top sweetener	Appropriate level as required in production	
11.05	Flavoring syrup	0.07	
12.03	Vinegar	0.012	
12.10	Blended condiment	0.07	
12.09.03	Spiced pastes (e.g. mustard seasonings, wasabi)	0.012	
14.02.01	Fruit and vegetable juice (pulp)	0.065	
14.02.02	Concentrated fruit and vegetable juice (pulp)	0.065	
14.03.01	Milk containing drink	0.02	
14.04	Water-based flavored drink	0.033	
14.05	Tea, coffee, or plant based drink	0.05	
14.05.03	Plant drink (including cocoa drink, cereal drink)	0.02	

14.06	Powdered drink	0.033	After preparation
15.03	Fermented alcoholic beverage (exclusive of grape wine in 15.03.01)	0.033	
16.01	Jelly	0.1	
16.06	Puffed food	0.032	

## 2. $\beta$ - carotene

2. β- carote Categorization		Maximum	Note
No.	Food Categorization	Level (g/kg)	
01.03.02	Recombined milk powders and cream powders (including flavored milk powder and cream powder)	1.0	
01.05	Cream and like product (exclusive of 01.05.01 cream)	0.02	
01.06.01	Uncured cheese	0.6	
01.06.02	Cured cheese	1.0	
01.06.04	Processed cheese	1.0	
01.06.05	Processed cheese like product	1.0	
01.07	Milk-based flavor dessert or recombined product (not including ice cream and flavored yoghurt)		
02.02	Fat emulsions mainly of type water-in-oil (exclusive of butter and concentrated butter in 02.02.01.01)	1.0	
02.03	Fat emulsions other than food category 02.02, including mixed and/or flavored products based on fat emulsions	1.0	
02.04	Fat-based dessert	1.0	
02.05	Other fat or fat products (limited to non-dairy creamer)	0.065	
03.0	Frozen drinks (exclusive of edible ice in 03.04)	1.0	
04.01.02.03	Fruit processed with vinegar, oil, or salt	1.0	
04.01.02.04	Canned fruit	1.0	
04.01.02.05	Jam, marmalade	1.0	
04.01.02.07	Jam other than in 04.01.02.05 (e.g. chutney)	0.5	
04.01.02.08	Candied and preserved fruit	1.0	
04.01.02.09	Decorative fruit	0.1	
04.01.02.10	Fruit dessert, including fruit flavor dessert in liquid form	1.0	
04.01.02.11	Fermented fruit product	0.2	
04.02.02.02	Dried vegetable	0.2	
04.02.02.03	Pickled vegetable	0.132	
04.02.02.04	Canned vegetable	0.2	
04.02.02.05	Vegetable puree, exclusive of tomato sauce	1.0	
04.02.02.08	Other processed vegetable	1.0	
04.03.02.03	Pickled edible fungi and algae	0.132	
04.03.02.04	Canned edible fungi and algae	0.2	
04.03.02.06	Other processed edible fungi and algae	1.0	
04.05.02.04	Nut or seed paste, including peanut butter	1.0	
05.01	Cocoa product, chocolate and chocolate products (including chocolate and chocolate products with cocoa butter alternatives)	0.1	
05.02	Candy	0.5	
05.03	Candy and chocolate coating	20.0	

05.04	Decorative candy (e.g. for fine bakery wares or decorations on cakes),	20.0	
0.6.00.00.04	toppings (non-fruit) and sweet sauces	1.0	_
06.03.02.04	Batters (e.g. for breading or batters for fish or poultry), breader, frying	1.0	
0.6.00.00.05	powder	1.0	_
06.03.02.05	Fried flour products	1.0	
06.06	Instant cereals, including rolled oats	0.4	
06.07	Instant wheat or rice product	1.0	
06.08	Frozen wheat or rice product	1.0	
06.09	Cereal and starch dessert (such as rice pudding, cassava pudding)	1.0	
07.0	Baked food	1.0	
07.04	Baked food stuffing and food flour batter	0.1	
08.02	Pre-processed meat product	5.0	
08.03.09	Edible casing	5.0	
09.02.03	Frozen minced fish products (including fish balls, etc.)	1.0	
09.04	Cooked fish and fishery product (for direct consumption)	1.0	
09.05	Canned fishery product	0.5	
10.03	Egg product (changed physical properties) (exclusive of dehydrated egg product in 10.03.01 and frozen egg products in 10.03.03)	1.0	
10.04	Other egg product	0.15	
11.05	Flavoring syrup	0.05	
12.10.01	Solid blended condiment	0.5	
12.10.02	Semi-solid blended condiment	2.0	
12.10.03	Blended condiment in liquid (exclusive of 12.03,12.04)	1.0	
14.03.01	Milk containing drink	1.0	
14.04	Water-based flavored drink	2.0	
14.05.03	Plant drink (including cocoa drink, cereal drink)	1.0	
14.06	Powdered drink	2.0	
15.01	Distilled spirit	0.6	
15.03	Fermented alcoholic beverage (exclusive of grape wine in 15.03.01)	0.6	
16.01	Jelly	1.0	
16.06	Puffed food	0.1	

## 3. $\beta$ -cyclodextrin

Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
05.02.01	Gum-based candy	20.0	
06.07	Instant wheat or rice product	1.0	
14.04	Water-based flavored drink	0.5	
14.06	Powdered drink	0.5	After preparation
16.06	Puffed food	0.5	

## 4. caramel colour– ammonia process

Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
	Recombined condensed milk (including sweet condensed milk, flavored sweet condensed milk and other condensed milk using non-diary ingredients, etc.)		

03.0	Frozen drinks (exclusive of edible ice in 03.04)	1	1
04.01.02.05	Jam, marmalade	1.5	
05.0	Cocoa product, chocolate and chocolate products	Appropriate level	
	(inc chocolate and chocolate products with		
	cocoa butter alternatives) and candy	production	
06.03.02.04	Batters (e.g. for breading or batters for fish or	2.5	
	poultry), breader, frying powder		
06.05.02.04	Starch-based snack	Appropriate level	
		as required in	
		production	
06.06	Instant cereals, including rolled oats	Appropriate level	
		as required in	
		production	
07.03	Biscuits, cookies, crackers	Appropriate level	
		as required in	
		production	
11.05	Flavoring syrup	Appropriate level	
		as required in	
		production	
12.03	Vinegar	1	
12.04	Soy sauce and derivatives	Appropriate level	
		as required in	
		production	
12.05	Bean paste, wheat paste and derivatives	Appropriate level	
		as required in	
		production	
12.10	Blended condiment	Appropriate level	
		as required in	
		production	
14.02.03	Fruit and vegetable juice (nectar) drink	Appropriate level	For powdered drink,
	(including fermented product)	as required in	increase use by times of
		production	dilution
14.03.01	Milk containing drink	2	For powdered drink,
			increase use by times of
			dilution
14.04.02.02	Flavored drinks, including fruit flavor drink,	5	For powdered drink,
	milk flavor, tea flavor, coffee flavor or other		increase use by times of
	flavor drink (limited to fruit flavor drink)		dilution
15.01.03	Brandy	6.0g/L	
15.01.04	Whisky	6.0g/L	
15.01.06	Rum	6.0g/L	
15.02	Integrated alcoholic beverage	6.0 g/L	
15.03.01.03	Flavored grape wine	6.0 g/L	
15.03.02	Chinese rice wine	6.0 g/L	
15.03.05	Beer and malt beverage	6.0 g/L	
16.01	Jelly	0.2	For jelly powder, the level
	· ·		
			of use will be increased by

	Caramel colour – ammonia sulphite process		
Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
01.04.02	Recombined condensed milk (including sweet condensed milk, flavored sweet condensed milk and other condensed milk using non-diary ingredients, etc.)		
03.0	Frozen drinks (exclusive of edible ice in 03.04)	2.0	
05.0	Cocoa product, chocolate and chocolate products (inc chocolate and chocolate products with cocoa butter alternatives) and candy	Appropriate level as required in production	
06.03.02.04	Batters (e.g. for breading or batters for fish or poultry), breader, frying powder	2.5	
06.06	Instant cereals, including rolled oats	2.5	
06.10	Fillings for cereal product (limited to flavor pie)	7.5	
07.03	Biscuits, cookies, crackers	1.2	
12.04	Soy sauce and derivatives	Appropriate level as required in production	
12.05	Bean paste, wheat paste and derivatives	10	
12.07	Cooking wine and product	10	
12.10	Blended condiment	10	
14.02.03	Fruit and vegetable juice (nectar) drink (including fermented product)	Appropriate level as required in production	
14.03.01	Milk containing drink	2	
14.04.01	Carbonated drink	Appropriate level as required in production	
14.04.02.02	Flavored drinks, including fruit flavor drink, milk flavor, tea flavor, coffee flavor or other flavor drink (limited to fruit flavor drink)	Appropriate level as	
14.05.01	Tea drink	10	
14.05.02	Coffee drink	0.1	
14.05.03	Plant drink (including cocoa drink, cereal drink)	0.1	
14.06	Powdered drink	Appropriate level as required in production	
15.01.03	Brandy	6.0 g/L	
15.01.04	Whisky	6.0g/L	
15.01.06	Rum	6.0g/L	
15.02	Integrated alcoholic beverage	6.0 g/L	
15.03.01.03	Flavored grape wine	6.0 g/L	
15.03.02	Chinese rice wine	6.0 g/L	
15.03.05	Beer and malt beverage	6.0 g/L	

6. Caramel colour (caustic sulphates)

Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
15.01.03	Brandy	6.0	
15.01.04	Whisky	6.0	
15.01.06	Rum	6.0	

15.02 Integrated alcoholic beverage	6.0	
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Categorization No.	Food Categorization	Maximum Level (g/kg)	N	ote
14.02	Fruit and vegetable juice (exclusive of fruit and vegetable juice/pulp in 14.02.01)	40	Per acid	tartaric
06.03.02.04	Batters (e.g. for breading or batters for fish or poultry), breader, frying powder	100	Per acid	tartaric
06.03.02.05	Fried flour products	10.0	Per acid	tartaric

## 7. L(+) - tartaric acid

## 8. Tartaric acid

Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
14.02	Fruit and vegetable juice (exclusive of fruit and vegetable juice/pulp in 14.02.01)	4 11	Per tartaric acid
06.03.02.04	Batters (e.g. for breading or batters for fish or poultry), breader, frying powder	1 100	Per tartaric acid
06.03.02.05	Fried flour products	10.0	Per tartaric acid

## 9. Sorbitan monolaurate, sorbitan monopalmitate, sorbitan monostearate, sorbitan tristearate, sorbitan monooleate

Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
04.01.01.02	Surface-treated fresh fruit	3	
04.02.01.02	Surface-treated fresh vegetable	3	

## 10. Diacetyl tartaric acid ester of mono(di) glycerides (DATEM)

Categorization	Food Categorization	Maximum	Note
No.		Level (g/kg)	
01.02.01	Fermented milk	5	
01.02.02	Flavored fermented milk	5.0	
01.03	Milk powders (including sweetened milk powders) and cream powders and powder analogues (exclusive of milk powders and cream powders in 01.03.01)	10.0	
01.05	Cream and like product (exclusive of 01.05.01 cream)	6.0	
01.05.01	Cream	5	
01.06	Cheese	10.0	
01.07	Milk-based flavor dessert or recombined product (not including ice cream and flavored yoghurt)	10.0	
02.02	Fat emulsions mainly of type water-in-oil (exclusive of butter and concentrated butter in 02.02.01.01)	10.0	
02.02.01.01	Butter and concentrated butter	10.0	

02.03	Fat emulsions other than food category 02.02, including mixed and/or flowered products based on fat emulsions	10.0	
02.04	flavored products based on fat emulsions Fat-based dessert	5.0	
02.04	Other fat or similar products (limited to non-dairy creamer)	5.0	
02.03	Frozen drinks (exclusive of edible ice in 03.04)	10.0	
03.0	Dried fruit	10.0	
04.01.02.02		1.0	
04.01.02.03	Fruit processed with vinegar, oil, or salt	5.0	
	Jam other than in 04.01.02.05 (e.g. chutney)		
04.01.02.08	Candied and preserved fruit	1.0	
04.01.02.09	Decorative fruit	2.5	
04.01.02.10	Fruit dessert, including fruit flavor dessert in liquid form	2.5	
04.01.02.11	Fermented fruit product	2.5	
04.02.02.02	Dried vegetable	10.0	
04.02.02.03	Pickled vegetable	2.5	
04.02.02.07	Boiled or fried vegetable	2.5	
04.02.02.08	Other processed vegetable	2.5	
04.03.02.03	Pickled edible fungi and algae	2.5	
04.03.02.05	Boiled or fried edible fungi and algae	2.5	
04.03.02.06	Other processed edible fungi and algae	2.5	
04.04.01.06	Cooked bean product	2.5	
05.02.01	Gum-based candy	50.0	
05.02.02	Candy other than gum-based candy	10.0	
05.04	Decorative candy (e.g. for fine bakery wares or decorations on cakes), toppings (non-fruit) and sweet sauces	10.0	
06.03.02.01	Fresh pastas and noodles and similar products (e.g. unboiled noodles, and "skins" or crusts for dumplings, wontons, shuo mai)	10.0	
06.03.02.02	Dried pastas and noodles and similar products	10.0	
06.03.02.04	Batters (e.g. for breading or batters for fish or poultry), breader, frying powder	5.0	
06.03.02.05	Fried flour products	10.0	
06.04.01	Cereal flour	3.0	
06.05.01	Edible starch	3.0	
06.07	Instant wheat or rice product	10.0	
06.08	Frozen wheat or rice product	10.0	
06.09	Cereal and starch dessert (such as rice pudding, cassava pudding)	5.0	
07.0	Baked food	6.0	
10.02.05	Other processed egg	5.0	
10.04	Other egg product	5.0	
11.01.02	Other sugar and syrup (such as brown sugar, brown granulated sugar, rock sugar)		
		5	
12.09	Spices	0.001	
12.10.02	Semi-solid blended condiment	10.0	
12.10.03	Blended condiment in liquid (exclusive of 12.03,12.04)	5.0	
14.03.01	Milk containing drink	0.5	
14.04	Water-based flavored drink	5.0	
14.05	Tea, coffee, or plant based drink	0.5	L

14.06	Powdered drink	5.0	
15.01	Distilled spirit	5.0	
15.03	Fermented alcoholic beverage (exclusive of grade wine in 15.03.01, exclusive of fruit wine in 15.03.03)	10.0	
15.03.03	Fruit wine	5.0	
16.01	Jelly	2.5	
16.06	Puffed food	20.0	

11. Steviorg	rycosides		
Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
01.02.02	Flavored fermented milk	0.2	Per equivalence of steviol glycosides
03.0	Frozen drinks	0.5	Per equivalence of steviol glycosides
04.01.02.08	Candied and preserved fruit	0.04	Per equivalence of steviol glycosides
04.05.02.01	Cooked nuts and seeds	0.04	Per equivalence of steviol glycosides
05.02	Candy	3.5	Per equivalence of steviol glycosides
07.02	Pastry	0.33	Per equivalence of steviol glycosides
12.0	Condiment	0.35	Per equivalence of steviol glycosides
14.0	Beverage (exclusive of packaged drinking water in 14.01)	0.2	Per equivalence of steviol glycosides
16.01	Jelly	0.5	Per equivalence of steviol glycosides
16.06	Puffed food	0.17	Per equivalence of steviol glycosides

#### 11. Steviol glycosides

#### 12. Aspartame

Categorization No.	Food Categorization	Maximum Level (g/kg)	Note
01.03.02	Recombined milk powders and cream powders (including flavored milk powder and cream powder)	2.0	
01.05	Cream and like product (exclusive of 01.05.01 cream)	1.0	
01.06.01	Uncured cheese	1.0	
01.06.05	Processed cheese like product	1.0	
01.07	Milk-based flavor dessert or recombined product (not including ice cream and flavored yoghurt)	1.0	
02.03	Fat emulsions other than food category 02.02, including mixed and/or flavored products based on fat emulsions	1.0	
02.04	Fat-based dessert	1.0	
03.0	Frozen drinks (exclusive of edible ice in 03.04)	1.0	
04.01.02.01	Frozen fruit	2.0	
04.01.02.02	Dried fruit	2.0	

04.01.02.03	Fruit processed with vinegar, oil, or salt	0.3	
04.01.02.04	Canned fruit	1.0	
04.01.02.05	Jam, marmalade	1.0	
04.01.02.07	Jam other than in 04.01.02.05 (e.g. chutney)	1.0	
04.01.02.08	Candied and preserved fruit	2.0	
04.01.02.09	Decorative fruit	1.0	
04.01.02.10	Fruit dessert, including fruit flavor dessert in liquid form	1.0	
04.01.02.11	Fermented fruit product	1.0	
04.01.02.12	Cooked or fried fruit	1.0	
04.02.02.02	Dried vegetable	1.0	
04.02.02.03	Pickled vegetable	0.3	
04.02.02.04	Canned vegetable	1.0	
04.02.02.05	Vegetable puree, exclusive of tomato sauce	1.0	
04.02.02.07	Boiled or fried vegetable	1.0	
04.02.02.08	Other processed vegetable	1.0	
04.03.02.03	Pickled edible fungi and algae	0.3	
04.03.02.04	Canned edible fungi and algae	1.0	
04.03.02.05	Boiled or fried edible fungi and algae	1.0	
04.03.02.06	Other processed edible fungi and algae	1.0	
05.01	Cocoa product, chocolate and chocolate products, including	3.0	
	chocolate and chocolate products with cocoa butter alternatives		
05.02.01	Gum-based candy	10.0	
05.02.02	Candy other than gum-based candy	3.0	
05.04	Decorative candy (e.g. for fine bakery wares or decorations on	1.0	
00.01	cakes), toppings (non-fruit) and sweet sauces	110	
06.06	Instant cereals, including rolled oats	1.0	
06.09	Cereal and starch dessert (such as rice pudding, cassava	1.0	
	pudding)		
07.01	Bread	4.0	
07.02	Pastry	1.7	
07.03	Biscuits, cookies, crackers	1.7	
07.04	Baked food stuffing and food flour batter	1.0	
07.05	Other baked food	1.7	
10.04	Other egg product	1.0	
11.04	Table-top sweetener	Appropriate level as	
	1	required in production	
11.05	Flavoring syrup	3.0	
12.03	Vinegar	3.0	
12.10.01	Solid blended condiment	2.0	
12.10.02	Semi-solid blended condiment	0.35	
12.10.03	Blended condiment in liquid (exclusive of 12.03,12.04)	1.2	
14.03.01	Milk containing drink	0.6	
14.03.01	Water-based flavored drink	0.6	
14.04		0.6	—
	Tea, coffee, or plant based drink Powdered drink		—
14.06		0.6	
15.03	Fermented alcoholic beverage (exclusive of grape wine in 15.03.01)	0.6	

16.01	Jelly	1.0	
16.06	Puffed food	0.5	

## 13. Carmine cochineal

Categorization No.	IFood Categorization	Maximum Level (g/kg)	Note
	Batters (e.g. for breading or batters for fish or poultry), breader, frying powder	0.5	Per carmine cochineal

## Annex 4

## Food Categories Suggested for Revision

No	Previous Food	Previous Food Categorization	Food	Food Categorization after
	Categorization	C C	Categorization	Revision
	No.		No. after Revision	
1.	01.03.02	Recombined milk powders and	01.03.02	Recombined milk powders and
		cream powders (including flavored		cream powders
		milk powder and cream powder)		-
2.	01.04.02	Recombined condensed milk	01.04.02	Recombined condensed milk
		(including sweet condensed milk,		(including condensed milk with
		flavored sweet condensed milk and		sugar, flavored condensed milk
		other condensed milk using non-		using non-diary ingredients, etc.)
		diary ingredients, etc.)		
	01.05.02	Concretionary cream	Deleted ""	Deleted ""
	01.05.03	Flavored cream	01.05.03	Recombined cream
5.	01.06	Cheese	01.06	Cheese, processed cheese and
				similar products
6.	01.07		01.07	Instant flavor food or its prepared
		recombined product (not including		foods that use milk as the major
		ice cream and flavored yoghurt)		ingridient (not including
				icecream or flavored fermented
				milk)
7.	02.02.01.02	Margarine and similar products (e.g.,		Margarine (artificial cream) and
		butter-margarine and margarine		similar products (e.g., butter and
		blends)		margarine blends)
8.	04.04.01.05	New soybean product (puffed		New soybean product (soybean
		soybean protein food, soybean-made		protein and its puffed food,
		vegetarian meat, etc.)		soybean-made vegetarian meat,
				etc.)
9.	04.01.02.08.04		04.01.02.08.04	Liquorice-flavored products
		(glycyrrhiza products)		
10.	08.03.09	Edible casing	08.03.09	Edible casing of cooked meat
				products
11.	08.03.10	Other meat and meat products	08.03.10	Other cooked meat products
12.	09.02.01	Frozen products	09.02.01	Frozen seafood
13.	11.01.02	Other sugar and syrup (brown sugar,	11.01.02	Other sugar and syrup (brown
		granulated sugar, rock sugar, raw		sugar, granulated sugar ,rock

		sugar, molasses, partially inverted sugar, maple syrup and so on)		sugar, raw sugar, fructose from cane sugar, partially inverted
				sugar, maple syrup and so on)
14.	12.10.02.04	Other	12.10.02.04	Other semi-solid blended condiment
15.	13.04	Low-calorie formula food	Deleted	Deleted
16.	13.05	Other special dietary food not included in 13.01-13.04	13.05	Other special dietary food
17.	14.01	Packaged drinking water type	14.01	Packaged drinking water
18.	14.01.03	Other drinking water	14.01.03	Drinking water of other types
19.	14.02	Fruit and vegetable juice	14.02	Fruit and vegetable juice and drinks made thereof
20.	14.02.03	Fruit and vegetable juice (nectar) drink (including fermented product)	14.02.03	Fruit and vegetable juice (pulp) drink
21.	14.03	Protein containing drink	14.03	Protein drink
22.			14.03.04	Other protein drink
23.	14.04	Water-based flavored drink	No, deleted	No, deleted
24.	14.04.01	Carbonated drink	14.04	Carbonated drink
25.	14.04.01.01	Cola type carbonated drink	14.04.01	Cola type carbonated drink
26.	14.04.01.02	Other type carbonated drink	14.04.02	Other type carbonated drink
27.	14.04.02	Non-carbonated drink	No, deleted	No, deleted
28.	14.05	Tea, coffee, or plant based drink	14.05	Tea, coffee, plant (type) drink
29.	14.05.01	Tea drink	14.05.01	Tea (type) drink
30.	14.05.02	Coffee drink	14.05.02	Coffee (type) drink
31.	14.05.03	Plant drink (including cocoa drink, cereal drink)	14.05.03	Plant drink
32.	14.06	Powdered drink	14.06	Solid drink
33.	14.06.01	Powdered drink of fruit flavor	Deleted	Deleted
34.	14.06.02	Protein containing powdered drink	14.06.02	Protein solid drink
35.	14.04.02.01	Drink for special usage, including sports drink, nutritional drink, etc.)	14.07	Drink for special usage
	14.04.02.02	Flavored drink (including fruit flavor, milk flavor, tea flavor, coffee flavor or other flavor drink)		Flavored drink
37.	14.08	Other drink types	14.09	Other type drink

## END OF TRANSLATION