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National Standards of Flavorings

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Report Highlights:
On March 27, 2009, China notified the WTO of "National Standard of the People's Republic of China - Flavorings" as TBT/N/CHN/575. This standard specifies the requirements, test methods, inspection rules, marks, packing, transport, storage and shelf-life of flavorings. The date for submission of final comments to the WTO is May 27, 2009. The proposed date of adoption is 90 days after circulation by the WTO Secretariat (June 27, 2009) and the proposed date of entry into force is six months after adoption (September 27, 2009).

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Summary

On March 27, 2009, China notified the WTO of "National Standard of the People's Republic of China - Flavorings" as TBT/N/CHN/575. This standard specifies the requirements, test methods, inspection rules, marks, packing, transport, storage and shelf-life of flavorings. The date for submission of final comments to the WTO is May 27, 2009. The proposed date of adoption is 90 days after circulation by the WTO Secretariat (June 27, 2009) and the proposed date of entry into force is 6 months after adoption (September 27, 2009).

This report contains an UNOFFICIAL translation of National Standard on Flavorings.

BEGIN TRANSLATION

National Standard of the People's Republic of China

Flavorings (Flavor Compounds)

(Draft Standard for Approval)

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Foreword

The odor, aroma, heavy metal content, arsenic content, aerobic bacterial count, coliform bacteria and methanol content in Table 1 and Table 2, as well as Annex A of this Standard are mandatory, and the rest are voluntary.

This Standard is formulated on the basis of relevant laws and regulations at home and abroad, in accordance with the characteristics, development trends and market demands of flavorings.

The Annex A of this Standard is normative, and Annex B of this Standard is informative.

This Standard was proposed by China National Light Industry Council.

This Standard is under the jurisdiction of National Technical Committee of Standardization for Flavor Fragrance Cosmetics.

This Standard was drafted by Shanghai Research Institute of Fragrance & Flavor Industry, Shanghai Apple Flavor & Fragrance Co., Ltd, Tianjin Chunfa Food Ingredients Co., Ltd, Guangzhou Baihua Flavors & Fragrances Company Ltd, Shenzhen Boton Flavors & Fragrances Co., Ltd, Firmenich Aromatics (China) Co. Ltd, Givaudan Flavors (Shanghai) Ltd, International Flavors & Fragrances (China) Ltd, Zhejiang Green Crystal Flavor Co., Ltd and Wujiang Ciyun Flavor and Fragrance Co., Ltd.

The main drafters of this Standard are Jin Qizhang, Xu Yi, Hu Yongcheng, Zhang Ying, Li Zehong, Xu Jingfang, Mao Tianjie, Yan Qihong, Liu Qinxuan, Zhang Zhidi and Huang Shuyi.

This is the first issuance of this Standard.

Flavorings

1 Scope

This Standard specifies the terms and definitions, requirements, testing method, inspection rules, labeling, packaging, transport, storage and shelf life of flavorings.

This Standard is applicable to flavorings.

2 Normative Reference

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. For dated references, subsequent to any amendments (exclusive of corrections), any revisions of these publications do not apply. However, parties reaching an agreement based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. For undated references, the latest editions shall apply.

GB 2716 *Hygienic Standard for Edible Vegetable Oil*

GB 2760 *Hygienic Standards for Uses of Food Additives*

GB/T 4789.2 *Microbiological Examination of Food Hygiene - Detection of Aerobic Bacterial Count*

GB/T 4789.3 *Microbiological Examination of Food Hygiene – Detection of Coliform Bacteria*

GB/T 5009.3 *Determination of Moisture in Foods*

GB/T 5009.12 *Determination of Lead in Foods*

GB/T 5009.15 *Determination of Cadmium in Foods*

GB/T 5009.17 *Determination of Total Mercury and Organic-mercury in Foods*

GB/T 5009.37 *Method for Analysis of Hygienic Standard of Edible Vegetable Oils*

GB/T 5009.74 *Method for Limit Test of Heavy Metals in Food Additives*

GB/T 5009.76 *Determination of Arsenic in Food Additives*

GB 7917.4 *Standard Methods of Hygienic Test for Cosmetics*; *Methanol*

GB 10343 *Edible Alcohols*

GB/T 11540 *Fragrance/Flavor Substances - Determination of Relative Density* (GB/T 11540-2008, ISO 279: 1998, MOD)

GB/T 14454.2 *Fragrance/Flavor Substances - Method for Valuation of Odor*

GB/T 14454.4 *Fragrance/Flavor Substances - Determination of Refractive Index* (GB/T 14454.4-2008, ISO 280: 1998, MOD)

GB/T 14455.3 *Fragrance/Flavor Substances - Evaluation of Solubility (Miscibility) in Ethanol* (GB/T 14455.3-2008, ISO 875: 1999, MOD)

GB xxxx-*200x* *Fragrance Compound*

GB xxxx *General Requirement for the Labeling of Flavorings*

3 Terms and Definitions

For the purpose of this Standard, the terms and definitions given below apply.

3.1 Flavorings (flavor compound)

It refers to a kind of concentrated and prepared mixture incorporated by flavorings substances and flavoring adjuncts, and used for producing flavor (excluding preparations only producing salty, sweet or sour taste), which may contain or not contain flavoring adjuncts. Usually, they are not directly used for consumption. The flavorings include food flavorings, feed flavorings, flavorings in contact with mouth cavity and lips and the flavorings for dish washing detergent.

3.2 Flavoring (flavor compound) adjunct

It refers to a kind of food additive and food ingredient necessary for producing, preserving and applying the flavorings. The additive added to food (except flavor enhancer) does not play the role for final aromatic products.

3.3 Test sample

It refers to the sample taken from selected samples for testing.

3.4 Reference sample

It refers to the sample which is acknowledged as the reference sample for inspection after verification and aroma evaluation by the technical departments together with related departments/personnel.

3.5 Oil-soluble liquid flavorings (flavor compound)

It refers to a kind of liquid flavorings with oil or oil-soluble substances as solvents.

3.6 Water-soluble liquid flavorings (flavor compound)

It refers to a kind of liquid flavorings with water or water-soluble substances as solvents.

3.7 Emulsified flavorings (flavor compound)

It refers to a kind of oil-in-water flavorings homogeneously generated from emulsification.

3.8 Paste flavorings (flavor compound)

It includes all kinds of flavorings in the shape of paste.

3.9 Blending powder flavorings (flavor compound)

It refers to a kind of flavorings with odor and /or aroma ingredients as well as powder carriers blended.

3.10 Encapsulated powder flavorings (flavor compound)

It refers to a kind of fine particle flavorings with odor and /or aroma ingredients encased in solid wall in the form of fine core material.

3.11 Process flavorings

It refers to a produce or mixture prepared for the purpose of characteristics of odor, which is a kind of products prepared with the ingredients or ingredient mixture allowed to be used in process flavorings, or process flavorings allowably used for food or naturally application in food through the preparation process suitable for foods consumed by humans. It can add flavoring substances and flavoring adjuncts to process flavorings.

4 Requirements

4.1 For the requirements of flavorings (except process flavorings), see Table 1.

Note: The flavorings shall be used with appropriate amount according to production needs. The flavorings in contact with mouth cavity and lips and for dish washing detergent shall also be in accordance with the requirements in Annex A and Annex B of GB xxxx-200x-*Fragrance Compound.*

4.2 For the requirements of process flavorings, see Table 2.

Note: The process flavorings shall be used with appropriate amount according to production needs.

5 Test Method

5.1 Color and appearance verification

5.1.1 Liquid flavorings and paste flavorings

Place the test sample and reference sample in small graduated beakers of same volume respectively to the same scale, and observe whether there is any difference or not by visual observation.

5.1.2 Powder flavorings

Respectively place the test sample and reference sample on a piece of clean white paper, and observe whether there is any difference or not by visual observation

Table 1 Requirements for flavorings (excluding process flavorings)

Item	Liquid flavorings			Paste flavorings	Powder flavorings	
	Oil-soluble	Water-soluble	Emulasified		Blending	Encapsulated
Color and appearance	In conformity with the reference sample of a same type					
Fragrance	In conformity with the reference sample of a same type					
Aroma	---	In conformity with the reference sample of a same type				
Relative density (25°C /25°C or 20°C /20°C or 20°C /4°C)	$D_{\text{Reference sample}} \pm 0.010$		----			
Refractive index (25°C or 20°C)	$n_{\text{Reference sample}} \pm 0.010$		**----**			
Solubility (25°C)	----	1g of test sample is completely dissolved in 700-1000g of water or in 300g-500g of 20% (V/V) ethanol.	----			

Moisture	----		=15.0%	=7.0%
Peroxide value	=0.5%	**----**		
Grain size (specified scope)	**----**	=2μm with uniform distribution	**----**	=90.0%
Stability of stock solution	----	No delaminating	**----**	
Stability of thousand-fold diluents	**----**	No floating oil, no sediment	----	
Heavy metal content (based on Pb)	=10mg/kg			
Arsenic content (based on As)	=3mg/kg			
Aerobic bacterial count (cfu/g or cfu/ml)	**----**	=100	=30000	=5000
Coliform bacteria/ (MPN/100g or MPN/100ml)	**----**	=30	=90	=30
Methanol content	**--**	=0.2%	--	

Note 1: The determination of peroxide value is only applicable to the products with animal and vegetable oil as solvents.
Note 2: The determination of methanol content is only applicable to alcoholic products.
Note 3: During storage life, light opacity, sediments or discoloration of partial flavorings shall have not effects on use.
Note 4: For all kinds of aroma chemicals of the flavorings, conform to GB2760; for alcohol, conform to GB10343; for vegetable oil, conform to GB2716. For the List of Approved Flavoring Adjuncts, see Annex A.
Note 5: For the Requirements on Limit Control of Heavy Metals in Flavorings, see Annex B.
Note 6: For blending powder and paste flavorings containing ingredients from seafood, Arsenic content(based on As) shall be no more than 5mg/kg

Table 2 Requirements for process flavorings

Item	Liquid flavorings		Paste flavorings	Powder flavorings	
	Oil-soluble	Water-soluble		Blending	Encapsulated
Color and appearance	In conformity with the reference sample of a same type				
Fragrance	In conformity with the reference sample of a same type				
Aroma	----	In conformity with the reference sample of a same type			
Moisture	--			=20.0%	=7.0%
Peroxide value	? 0.5%	------	=0.5%		
Heavy metal content(based on Pb)	=10mg/kg				
Arsenic content (based on As)	=3mg/kg				
Aerobic bacterial count (cfu/g or cfu/ml)	=30000				
Coliform bacteria/ (MPN/100g or MPN/100ml)	=90				

Note 1: The determination of peroxide value is applicable to any flavorings with animal and vegetable oil.
Note 2: During storage life, light opacity, sediments or discoloration of partial flavorings shall have not effects on use.
Note 3: For all kinds of aroma chemicals of the flavorings, conform to GB2760; for vegetable oil, conform to GB2716. For the *List of Approved Flavoring Adjuncts*, see Annex A.
Note 4: For the *Requirements on Limit Control of Heavy Metals in Flavorings*, see Annex B
Note 5: For blending powder and paste flavorings containing ingredients from seafood, Arsenic content (based on As) shall be no more than 5mg/kg.

5.2 Fragrance evaluation

Fragrance evaluation shall conform to GB/T 14454.2.

5.3 Aroma evaluation

5.3.1 Preparation of test solution

According to flavoring products, one method is selected from following:

a) Respectively weigh 0.1g (to the nearest 0.01g) of the test sample and reference sample, add them to their own sweet water solutions (prepared by the addition of 8g-12g of sucrose, 0.10g-0.16g of citric acid and distilled water to 100ml) in small beakers. Thus two sweet solutions are prepared, respectively containing 0.1% test sample and reference sample. Well mixed, the test solutions are prepared.

b) Respectively weigh 0.2g-0.5g (to the nearest 0.01g) of the test sample and reference sample, add them to their own salt water solutions (prepared by the addition of 0.5g salt and boiled water to 100ml) in small beakers. Thus two salt solutions are prepared, respectively containing 0.2-0.5% test sample and reference sample. Well mixed, the test solutions are prepared.

5.3.2 Evaluation method

Respectively sip the test solutions, distinguishing their flavor characteristics, intensity and mouth feel. The test sample shall be in conformity with the reference sample of the same type. Before sipping the solutions, it is necessary to gargle.

5.4 Determination of relative density

The relative density is determined as specified in GB/T 11540.

5.5 Determination of refractive index

The relative index is determined as specified in GB/T 14454.4.

5.6 Determination of Solubility

The solubility is determined as specified in GB/T 14455.3

5.7 Determination of moisture

The moisture is determined as per GB/T 5009.3. In case any dispute arises, the third method of GB/T 5009.3-distillation method is applied.

5.8 Determination of peroxide value

The peroxide value is determined as specified in 4.2 of GB/T 5009.37.

5.9 Determination of grain size

5.9.1 Emulsified flavorings

5.9.1.1 Apparatus

Biological microscope, >600×

5.9.1.2 Test method

Take a little of well-mixed test sample onto slide glass and add suitable water drip, gently press test sample to thin layer with cover slip. Then view by microscope.

5.9.2 Encapsulated powder flavorings

The grain size is determined by sieving with a standard sieve.

Method 1: Unless otherwise specified, weigh 10g of test sample (to the nearest 0.1g), place them in the standard sieve subject to specified size, cover the sieve and attach a close receiving vessel under the sieve, revolve and shake in horizontal direction for more than 3

min, and tap the sieve in vertical direction from time to time. Remove the grains and powder from the receiving vessel, weigh and calculate its percent (%).

Method 2: Unless otherwise specified, weigh 30g of test sample (to the nearest 0.1g), place them in the large-sized standard sieve subject to specified size, cover the sieve and attach a close receiving vessel under the sieve, revolve and shake in horizontal direction for more than 3 min, and tap the sieve in vertical direction from time to time. And then totally transfer the test sample in the vessel to the small-sized standard sieve subject to specified size, and repeat the above procedures. Weigh the grains and powder remained in the small-sized standard sieve (namely the grains and powder that can pass the large-sized standard sieve while can not pass the small-sized standard sieve), and calculate its percent (%).

5.10 Determination of stability of stock solution.

5.10.1 Apparatus

Centrifugal precipitator

5.10.2 Test method

Put evenly-mixed test sample into three centrifugal tubes to the same scale. Hold one for reference and put the other two into the centrifugal precipitator. Take them out after centrifugation for 15min at a speed of (2500-3000) r/min. Compare them with the reference tube, no layer separation shall occur.

5.11 Determination of stability of thousand-fold diluent

5.11.1 72h test

5.11.1.1 Apparatus

a) 1000mL volumetric flask

b) Soda bottles

c) Capper

d) Scale: To the nearest of 0.01g.

5.11.1.2 Test Method

Weigh 1.0g well mixed sample, white granulated sugar (80-120g), citric acid (1.0-1.6g), and 100mL distilled water. Heat them for full dissolution. Transfer them into volumetric flask after cooling and dilute them with distilled water to scale, thus thousand-fold diluent is prepared.

Take 300mL thousand-fold diluent into glass soda bottle and cap the bottle. Put horizontally it still for 72h at room temperature. View the surface of solution. It shall be free from floating oil on the surface and sedimentation at the bottom.

5.11.2 Centrifuge test

5.11.2.1 Apparatus

Centrifugal precipitator

5.11.2.2 Test method

Put thousand-fold diluent stated in 5.5.1.2 into three centrifugal tubes to the same scale. Hold one for reference and put the other two into the centrifugal precipitator. Take them out after centrifugation for 15min at a speed of 3000 r/min. Compare them with the reference tube, there is no floating oil on the surface and no deposit at the bottom.

5.12 Determination of heavy metal content (based on Pb)

The heavy metal content is determined as specified in GB/T 5009.74

Note: For the *Requirements on Limit Control of Heavy Metals in Flavorings*, see Annex B.

5.13 Determination of arsenic content (based on As)

The arsenic content is determined as specified in GB/T 5009.76

5.14 Determination of aerobic bacterial count

The aerobic bacterial count is determined as specified in GB 4789.2

5.15 Detection of coliform bacteria

The coliform bacteria are detected as specified in GB 4789.3.

5.16 Determination of methanol content

The methanol content is determined as specified in GB 7917.4.

6 Inspection Rules

6.1 The quality inspection departments of manufacturers shall be liable for the inspection of the flavorings. The manufacturers shall ensure that all products delivered are in conformity with the requirements of this Standard and each batch of products delivered shall be supported by its corresponding certificate of compliance. Factory inspection shall be conducted to items such as color and appearance, fragrance, aroma, relative density, refractive index, moisture, aerobic bacterial count and coliform bacteria. Type inspection is all-item inspection and shall be conducted every year.

6.2 The acceptance institutions are entitled to inspect the received products for their compliance with the rules of this Standard. The inspection is carried out for products of each batch number, and respective inspection for products with different batch number.

6.3 Sampling method: Perform complete sampling in the case of 1-2 packaging units for each batch; 2 packaging units from 3-100 packaging units; or, in the case of more than 100 packaging units, an additional sampling of 3% from the excessive part. Evenly take 50mL-100mL of test sample from each packaging unit with a sampler, totally place it in a sample mixer, mix it well, respectively put it into two clean, dry and airtight inertia vessels, and keep them in a dark place. Attach labels on the vessels, indicating manufacturer name, product name, production date, batch number, quantity and sampling date. One vessel is used for inspection, and the other is preserved for future reference.

6.4 If the inspection results show that one index is not in conformity with the requirements of this Standard, the acceptance institution may, together with the manufacturer, carry out re-inspection of test sample in doubled quantity. If the re-inspection results show that some indexes are still not in conformity with the requirements, the batch can not be accepted.

6.5 If any dispute concerning product quality arises between suppliers and purchasers, it may be settled through consultations or may be arbitrated by the legal inspection authorities.

7 Marking, Packaging, Transport, Storage and Shelf Life

7.1 Marking

Follow specifications for flavorings marking as provided in GB XXXX.

7.2 Packaging

The flavorings shall be packed in the food grade polythene bag/barrel, syntactic bag/barrel or glass container which is clean and tasteless, or be packaged according to users' requirements.

7.3 Transport

During transport, the products shall be loaded and unloaded with care, and prevented from sunshine and rain. And they shall be kept away from poisonous and harmful substances during loading and transport and subject to the stipulations of the related departments.

7.4 Storage

The products shall be kept in a cool, dry and well-ventilated storehouse away from offensive odor and sources of ignition. If necessary, they may be in cold storage or frozen storage.

7.5 Shelf life

In the case of proper storage and transport conditions, intact packaging and non-unpacking, Products' shelf life is determined by the manufactures as six months to five years based on their characteristic.

Appendix A

(Normative Appendix)
List of Flavoring Adjunct allowed in Flavorings

A.1 See Table A.1 for solvents and carriers

Table A.1

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
1	.	water	Food Ingredients	
2	..	ethanol	Food Ingredients	
3	...	iso-propylalcohol	I1003	JECFA 277
4	...	propylene glycol	18.004	1520
5	..	glycerine	15.014	422
6	....(.)	sorbitol and sorbitol syrup	19.006	420
7	...	benzyl alcohol	I1034	JECFA 25
8	...	xylitol	19.007	967
9	..(...)	acetic acid	01.107	260
10	.....	glycerate caprylate and caprate	10.018	-
11	..	lactic acid	01.102	270
12	.....(.. .)	glyceryl triacetate (triacetin)	A3050	JECFA920
13	.....	glyceryl tripropanoate	A3203	JECFA921
14	.....	propylene glycol alginate	20.010	405
15	....	mono-, di-, tri-glyceride of fatty acids	10.006	471
16	.....	triethyl citrate	I1541	1505
17	.....	sucrose esters of fatty acids	10.001	473
18	....	sodium, potassium, calcium and magnesium salts of fatty acids	-	470
19	.....	sodium alginate potassium	20.004 20.005	401 402
20	....	ethyl lactate	I1526	JECFA 931
21	.....	diethyl tartrate	I1597	JECFA 622
22	..	salts (NaCl)	Food materials	
23	..	lactose	Food materials	

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
24	…	glucose	Food materials	
25	..	sucrose	Food materials	
26	….	polydextrose	20.022	1200
27	..	dextrin	Food materials	
28	..	starch	Food materials	
29	….	oxidized starch	20.030	1404
30	….. (… …)	hydroxypropyl starch	20.014	1440
31	……	starch sodium octenyl succinate	10.030	1450
32	….	maltodextrin	Food materials	
33	beta-….	beta-cyclodextrin	20.024	459
34	..	agar	20.001	406
35	…	carrageenan	20.007	407
36	..	gelatine	20.002	-
37	…	guar gum	20.025	412
38	….	gum arabic	20.008	414
39	…(…..)	xanthan gum	20.009	415
40	..	pectins	20.006	440
41	… (….. .)	locust bean gum (carob bean gum)	20.023	410
42	…	konjac flour	Food materials	
43	…..	microcrystalline cellulose	02.005	460 (i)
44	…….	sodium carboxymethyl cellulose	20.003	466
45	…..	methyl cellulose	-	461
46	….	food oil and fat	Food materials	
47	…..	hydrogenated vegetable oil	Food materials	
48	……	hydrolyzed vegetable protein (HVP)	Food materials	
49	……	hydrolyzed animal protein (HAP)	Food materials	
50	..	lecithin (phospholipid)	04.010	322
51	D-….	D-mannitol	19.017	421

A.2 See Table A.2 for other food additives

Table A.2

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
1	…	citric acid	01.101	330
2	…	tartaric acid	01.103	334
3	…	malic acid	01.104	296
4	….	metatartaric acid	01.105	353
5	..	phosphoric acid	01.106	338
6	..	hydrochloric acid	01.108	507
7	…	fumaric acid	01.110	297
8	….	potassium hydroxide	01.203	525
9	…	potassium carbonate	01.301	501 (i)
10	…	sodium carbonate	01.302	500 (i)
11	….	trisodium citrate	01.303	331 (iii)
12	….	tripotassium citrate	01.304	332 (ii)
13	….. (… …..)	sodium sesquicarbonate	01.305	500 (iii)
14	…..	sodium dihydrogen citrate	01.306	331 (i)
15	….	tripotassium phosphate	01.308	340 (iii)
16	…	calcium lactate	01.310	327
17	…..	potassium ferrocyanide	02.001	536
18	….	sodium aluminosilicate	02.002	554
19	….	tricalcium phosphate	02.003	341 (iii)
20	…….	polyoxypropylene glycerol ether(GP)	03.005	-
21	……… ..	polyoxypropylene oxyethylene glycerol ether(GPE)	03.006	-
22	…….	polydimethyl siloxane	03.007	900a
23	. . . . . (BHA)	butylated hydroxyanisole (BHA)	04.001	320
24	. . . . . (BHT)	butylated hydroxytoluene (BHT)	04.002	321
25	……	propyl gallate(PG)	04.003	310
26	D-…… .	D-isoascorbic acid(erythoric acid) sodium isoascorbate	04.004 04.018	315 316
27	…(…)	tea polyphenol(TP)	04.005	-

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
28	...(.....)	stearic acid(octadecanoic acid)	14.009	570
29	...	adipic acid	01.109	355
30	....	sodium diacetate	17.013	262(ii)
31	...	calcium chloride	18.002	509
32	...	magnesium chloride	18.003	511
33	..(.....)	phytic acid (inositol hexaphosphoric	04.006	-
34	.....	tertiary butylhydroquinone (TBHQ)	04.007	319
35	.....	antioxidant of glycyrrhiza	04.008	-
36	.....	calcium ascorbate	04.009	302
37	.....	ascorbyl palmitate	04.011	304
38	4-.....	4-hexylresorcinol	04.013	586
39	....(....C)	ascorbic acid	04.014	300
40	.....	sodium isoascorbate	04.018	316
41	... E(.. *dl*-a-...)	vitamin E(*dl*-a-tocopherol)	04.016	307
42	.....	rosemary extract	04.017	-
43	.....	potassium metabisulfite	05.002	224
44	.....	sodium metabisulfite	05.003	223
45	.....	sodium hydrogen sulfite	05.005	222
46	....	sodium hydrogen carbonate	06.001	500 (ii)
47	....	potassium hydrogen carbonate	01.307	501 (ii)
48	....	ammonium hydrogen carbonate	06.002	503 (ii)
49	... (.....)	calcium carbonate (light and heavy)	13.006	170 (i)
50	....(....)	aluminium potassium sulfate	06.004	522
51	....(....)	aluminium ammonium sulfate	06.005	523
52	....	calcium hydrogen phosphate(dicalcium	06.006	341 (ii)
53	.....	potassium bitartarate	06.007	336
54	.....	sucrose esters of fatty acids	10.001	473

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
55	.....(... .)	sodium caseinate	10.002	-
56	..... (.... 40)	sorbitan monostearate	10.003	491
57	..... (.... 65)	sorbitan tristearate	10.004	492
58	.....	sorbitan monooleate	10.005	494
59	.....(.. .....)	glyceryl mono(di, tri)stearate	10.006	471
60	.....	xylitan monostearate	10.007	-
61	.....	sorbitan monopalmitate	10.008	495
62	.....	calcium stearoyl lactylate	10.009	482 (i)
63	....	diacetyl tartaric acid esters of mono(di)	10.010	472 e
64	.....	sodium stearoyl lactate	10.011	481 (i)
65	.....(... .)	glycerol ester of wood rosin (ester gum)	10.012	445
66	.....	glycerol ester of hydrogenated rosin	10.013	-
67	.....	sucrose acetate isobutyrate (SAIB)	10.014	444
68	....(....	polyoxyethylene (20) sorbitan monostearate	10.015	435
69	.... (.... 80)	polyoxyethylene (20) sorbitan monooleate	10.016	433
70	....	polyoxyethylene xylitan monostearate	10.017	-
71	.....	modified soybean phospholipid	10.019	-
72	.....	propylene glycol esters of fatty acids	10.020	477
73	.....	tripolyglycerol monostearate	10.021	-
74	..... (.... 20)	sorbitan monolaurate	10.024	493
75	....-.... ..... (... . 20)	polyoxyethylene (20) sorbitan monolaurate	10.025	432
76	....-.... ..... (... . 40)	polyoxyethylene (20) sorbitan monopalmitate	10.026	434
77	....	acetylate mono- and diglyceride (acetic and fatty acid esters of	10.027	472a

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
78	....	potassium stearate	10.028	470
79	.....	polyglycerol polyricinoleate (PGPR) (polyglycerol esters of	10.029	476
80	.....	starch sodium octenylsuccinate	10.030	1450
81	.....	polyglycerol esters of fatty acids	10.022,10.	475
82	.....	citric and fatty acid esters of glycerol	10.032	472C
83	....	monosodium glutamate	12.001	621
84	5'-.....	disodium 5'-guanylate	12.002	627
85	5'-.....	disodium 5'-inosinate	12.003	631
86	5'-.....	disodium 5'-ribonucleotide	12.004	635
87	.....	disodium succinate	12.005	-
88	..(....)	shellac	14.001	904
89	....	trisodium orthophosphate	15.001	339(iii)
90	.....	sodium polyphosphate	15.002	452 (i)
91	.....	sodium tripolyphosphate	15.003	451(i)
92	....	tetrasodium pyrophosphate	15.004	450 (iii)
93	.....	sodium dihydrogen phosphate	15.005	339 (i)
94	.....	sodium phosphate dibasic	15.006	339 (ii)
95	.....	calcium dihydrogen phosphate	15.007	341 (i)
96	.....	disodium dihydrogen pyrophosphate	15.008	450 (i)
97	.....	dipotassium hydrogen phosphate	15.009	340 (ii)
98	.....	potassium dihydrogen phosphate	15.010	340 (i)
99	.....	disodium ethylene-diamine-tetra-	18.005	386
100	.....	disodium stannous citrate	18.006	-
101	....-d-..	glucono delta-lactone	18.007	575
102	.....	mesona chinensis benth extract	18.009	-
103	.....	tamarind polysaccharide gum	20.011	-
104	.....	sodium carboxy methyl starch	20.012	-
105	.....	sodium starch phosphate	20.013	-
106	.....	hydroxypropyl starch	20.014	1440
107	.....	acetylated distarch phosphate	20.015	1414
108	.....	hydroxypropyl distarch phosphate	20.016	1442
109	.....	phosphated distarch phosphate	20.017	1413
110	...(.....)	chitin	20.018	-

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
111	....	ablmoschus manihot gum	20.019	-
112	....(.... ..)	linseed gum	20.020	-
113	...	sesbania gum	20.021	-
114	...	gellan gum	20.027	418
115	.....	hydroxypropyl methyl cellulose(HPMC)	20.028	464
116	....	gleditsia sinenis lam gum	20.029	-
117	..... .	acetylated distarch adipate	20.031	1422
118	.....	acid treated starch	20.032	1401
119	.....	oxidized hydroxypropyl starch	20.033	-
120	....	fenugreek gum	20.035	-
121	.....	sodium polyacrylate	20.036	-
122	.....	starch Aluminium octenylsuccinate	20.038	-
123	.....	starch acetate	20.039	1420
124	...	potassium chloride	00.008	508
125	.....	galactomannan	00.014	-
126	.....	casein calcium peptide (CCP)	00.015	-
127	.....	casein phosphopeptides (CPP)	00.016	-
128	...	zinc sulfate	00.018	-
129	.....	benzoic acid, sodium benzoate	17.001 17.002	210 211
130	.....	sorbic acid, potassium sorbate	17.003, 17.004	200 202
131	.....	propionic acid, sodium propionate ,calcium propionate	17.029, 17.006,	280 281
132	....., ., ...	methyl p-hydroxybenzoate and it's sodium salt ethyl p-hydroxybenzoate	17.032 17.007	218&219 214&215
133	....	sulfur dioxide	05.001	220
134	....	sodium sulfite	05.004	221
135	.....	sodium hyposulfite	05.006	-
136	.....	dehydroacetic acid, sodium dehydroacetate	17.009 (i) 17.009 (ii)	265 266
137	...	sodium acetate	00.013	262(i)
138	....	maltitol	19.005	965

No	Name of Food Additive in Chinese	Name of Food Additive in English	CNS Code	INS Code
139	….	calcium hydroxide	01.202	526
140	……	nisin	17.019	234
141	….	natamysin	17.030	235
142	…	sodium lactate	15.012	325
143	….	calcium stearate	10.039	470
144	….	silicon dioxide	02.004	551
145	…	calcium carbonate	13.006	170 (i)
146	…	magnesium carbonate	13.005	504 (i)
147	…	calcium sulphate	18.001	516
148	…..	calcium dihydrogen phosphate	15.007	341
	….	calcium hydrogen phosphate (dicalcium orthophosphate)	06.006	341 (ii)
	….	tricalcium orthophosphate	02.003	341 (iii)

Note 1: A variety of food ingredients are allowed in flavorings;

Note 2: All food additives in food conforming to GB 2760 are allowed in flavorings;

Note 3: According to technology needs, coloring agents, sweeteners and caffeine which is conforming to GB 2760, can be used in flavorings. But the food additive and content must accord with final food requirements. It requires note the name of food additives on labeling, and inform customer the content of food additives via written notice.

Appendix B

(Informative Appendix)
Requirements on Limit Control of Heavy Metals in Flavorings

B.1 See Table B.1 for Requirements on Limit Control of Heavy Metals in Flavorings

Items	Liquid flavorings		Paste flavorings	Powder flavorings	
	Oil-soluble	Water-soluble		Blending	Encapsulated
Lead content.mg/kg.	=10				
Cadmium content.mg/kg.	=1				
Mercury content.mg/kg.	=1				

B.2 Determination Method

B.2.1 Determination of lead content

Lead content shall conform to GB/T 5009.12.

B.2.2 Determination of cadmium content

Cadmium content shall conform to GB/T 5009.15.

B.2.3 Determination of Mercury content

Mercury content shall conform to GB/T 5009.17.

END TRANSLATION