



**Food and Agriculture
Organization of
the United Nations**



**World Health
Organization**

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - Fax: (+39) 06 5705 4593 - E-mail: codex@fao.org - www.codexalimentarius.net

Agenda Item 5(d)

CX/FA 12/44/10 Add.1

February 2012

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Forty-fourth Session

Hangzhou, China, 12-16 March 2012

PROVISIONS FOR ALUMINIUM-CONTAINING FOOD ADDITIVES OF THE GSFA

Prepared by Brazil

This addendum is intended to adjust some inaccuracies in CX/FA 12/44/10, particularly under **Recommendation 5 “further discussion”**, regarding entries for **food categories 12.2.2, 12.5.2, and 12.6.3** for **INS 554 “sodium aluminosilicate”** and for **INS 556 “calcium aluminium silicate”**; and under **Recommendation 7 “revocation/discontinuation”** for **INS 554 “sodium aluminosilicate”**.

Changes are presented in **gray**.

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
5. SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	20000 mg/kg	6	3	1140 mg/kg as Al	IFAC (levels for INS 554 (Na ₂ O:Al ₂ O ₃ :13SiO ₂)) (needed for anticaking)
					1140 mg/kg as Al	IDF
					57 mg/kg as Al	ICGMA (used in dry mix hot chocolate)
					Be discontinued	Thailand EU (INS 554 is not authorized in Codex STAN 243-2003 for fermented milks)
01.3	Condensed milk and analogues (plain)	20000 mg/kg	6	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					1140 mg/kg as Al	IDF
					570 mg/kg as Al	ICGMA (for beverage whiteners (FC 1.3.2) including non-dairy creamer powder, coffee whitener powder)
					Be discontinued	EU (not authorized in any CC relevant to sub cat.01.3: a) 01.3.2: STAN 250-2006 on blend of evaporated skimmed milk, STAN 252-2006 on blend of sweetened condensed milk, b) 01.3.1: STAN 281-1971 on evaporated milk, STAN 282-1971 on sweetened condensed milk; therefore the technological need is question in the general heading 01.3)
01.4.4	Cream analogues	20000 mg/kg	6	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					1140 mg/kg as Al	IDF
01.5	Milk powder and cream powder and powder analogues (plain)	10000 mg/kg	6 & 174	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					570 mg/kg as Al	IDF (as authorized in the Codex Standard 207)
					570 mg/kg as Al	ICGMA - for milk/cream powder analogues (e.g., soy oil powder) and 5000 mg/kg as compound for dairy-based creamers (e.g., milk powder and cream powder)
					Be discontinued	Brazil (Codex Standard 207-1999 CODEX STANDARD FOR MILK POWDERS AND CREAM POWDER includes the provision of several

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
5. SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
						anticaking agents with the ML10000 mg/kg singly or in combination. As there are alternative substitutes, Brazil supports the discontinuation of this provision)
					860 mg/kg as Al	Canada (ML reported by food industries as an anticaking agent)
01.6.2.1	Ripened cheese, includes rind	10000 mg/kg	6, 174 & 177	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					570 mg/kg as Al	IDF (as authorized in the Codex Standard 283) anticaking agent in shredded cheese
					Be discontinued	Brazil (Codex Standard 283-1978 CODEX GENERAL STANDARD FOR CHEESE includes silicates as anticaking agents with the ML of 10000mg/kg, singly or in combination. As there are alternative substitutes, Brazil supports the discontinuation of this provision)
						EU (EFSA has highlighted that dairy products, in particular cheese, are among the main contributors of aluminium, at least in EU; because of safety concern, EU recommends to discontinue work on this category; substitutes are used by the EU industry)
01.6.2.3	Cheese powder (for reconstitution; e.g., for cheese sauces)	10000 mg/kg	6 & 174	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					570 mg/kg as Al	IDF
					1425 mg/kg as Al	ICGMA (used as anti-caking agent that helps prevent components from adhering to each other; to ensure flow ability for the cheese powder and to prevent clumping)
					1140 mg/kg as Al	Canada (ML reported by food industries as an anticaking agent)
01.6.4	Processed cheese	10000 mg/kg	6, 174 & 177	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					570 mg/kg as Al	IDF (technological justification as anticaking agent for sliced, cut, shredded and grated cheese)
					860 mg/kg (as Al)	Canada (ML reported by food industries as an anticaking agent in shredded grated cheese). Canada questions whether this use in

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
5. SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
						grated/shredded cheese should be captured under "Processed cheese"? According to the GSFA, such mechanical treatment (i.e. cutting, grating, shredding, etc. of cheese) would not fall under the processed cheese category but would be included under 01.6.2 (Ripened cheese).
01.6.5	Cheese analogues	10000 mg/kg	6, 174 & 177	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					570 mg/kg as Al	IDF (technological justification as anticaking agent for sliced, cut, shredded and grated cheese)
01.8.1	Liquid whey and whey products, excluding whey cheeses	20000 mg/kg	6	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					1140 mg/kg as Al	IDF
01.8.2	Dried whey and whey products, excluding whey cheeses	10000 mg/kg	6 & 174	3	1140 mg/kg as Al	IFAC (needed for anticaking)
04.2.2.2	Dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds	20000 mg/kg	6	3	1140 mg/kg as Al	IFAC (needed for anticaking)
06.6	Batters (e.g., for breading or batters for fish or poultry)	20000 mg/kg	6	3	GMP	Mexico
					1140 mg/kg as Al	IFAC
					80 mg/kg as Al	Canada (ML reported by food industries as an anticaking agent)
07.1.6	Mixes for bread and ordinary bakery wares	10000 mg/kg	6 & 174	3	GMP	Mexico
					1140 mg/kg as Al	IFAC (needed for anticaking)
					342 mg/kg as Al	ICGMA (use levels range from 0.1-0.6% (6000 mg/kg on the basis of whole compound or 342 mg/kg as Al) to prevent clumping and ensure

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
5. SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
						flow ability)
					1140 mg/kg as Al	Canada (ML reported by food industries as an anticaking agent)
07.2.3	Mixes for fine bakery wares (e.g., cakes, pancakes)	10000 mg/kg	6	3	GMP	Mexico
					1140 mg/kg as Al	IFAC (needed for anticaking)
					1140 mg/kg as Al	ICGMA (to ensure flow ability and prevent clumping)
					1140 mg/kg	Canada (ML reported by food industries as an anticaking agent)
					Be discontinued	EU (for safety reason; JECFA already spotted that children are a subcategory at risk with regard to the exposure to aluminum; fine bakery wares are widely consumed by children)
11.1.2	Powdered sugar, powdered dextrose	10000 mg/kg	6 & 174	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					794 mg/kg as Al	CEFS (Note 56 "Provided starch is not present" should be added)
					Be discontinued	Brazil (CODEX STANDARD FOR SUGARS - CODEX STAN 212-1999 includes silicates as anticaking agents. As there are alternative substitutes, Brazil supports the discontinuation of this provision)
						EU (due to safety concern, the EU intend to revisit its current authorization on aluminum based food additives in sugar and to withdraw this authorization; sugar is a staple foodstuff which is widely consumed on a daily basis)
12.1.2	Salt Substitutes	10000 mg/kg	<u>6, 174</u>	6	1140 mg/kg as Al	IFAC (needed for anticaking)
					Be discontinued	EU (for safety reason, EU recommends to discontinue the work on this staple food which is consumed on a daily basis)
12.2.2	Seasonings and condiments	30000 mg/kg	6 & 174	3	875 mg/kg as Al	Brazil - ML reported by food industry necessary to prevent clumping and improving flow ability. The use of sodium aluminum silicate is justified by its round molecular structure, which allows the flow of less crystallized seasonings and condiments along the production site. Therefore, it is not possible the substitute this food additive, but it may

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
5. SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
						be used in combination with other anticaking agents, such as silicate dioxide.
					1140 mg/kg as Al	IFAC (needed for anticaking)
					1710 mg/kg as Al	ICGMA (used as anticaking agent in seasonings to prevent clumping and improving flow ability)
12.5.2	Mixes for soups and broths	10000 mg/kg	6 & 174	3	570 mg/kg as Al	Brazil - necessary to prevent clumping in highly hygroscopic products.
					1150 mg/kg as Al	IFAC (needed for anticaking)
					570 mg/kg as Al	ICGMA (used as anticaking agent in these mixes to prevent clumping and improving flow ability)
					Be discontinued	EU (not authorized in STAN 117-1981 on bouillon and consommés; calcium phosphates are used as anticaking agents)
12.6.3	Mixes for sauces and gravies	10000 mg/kg	6 & 174	3	570 mg/kg as Al	Brazil - necessary to prevent clumping in highly hygroscopic products.
					1150 mg/kg as Al	IFAC (needed for anticaking)
					1140 mg/kg as Al	ICGMA (used as anticaking agent in these mixes to prevent clumping and improving flow ability)
					Be discontinued	EU (does not support this new proposal on aluminium while PTWI is already exceeded and JECFA recommends to restrict the conditions of its use)
15.1	Snacks- potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)	120 mg/kg	6	3	1140 mg/kg as Al	IFAC (needed for anticaking)
					Be discontinued	Thailand
						Brazil (if the use is in seasonings for snacks, then the provision for food category 12.2.2 is enough)
						Canada (if the use is in seasonings for snacks, then the provision for food category 12.2.2 is enough. Notes that such use could also possibly be captured under the provision for salt (12.1.1) since industry has

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
5. SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
						reported the use of 554 as an anti-caking agent in the salt component of some seasonings for snack foods in this food category).
					114mg/kg as Al	ICGMA (snacks frequently have seasoning mixtures applied to them to create new flavors of products; these seasonings must flow to properly adhere to the product; INS 554 is needed as anticaking agent in these seasonings to prevent components from adhering to each other and then not adhering to the snack product).

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
CALCIUM ALUMINIUM SILICATE (INS 556)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
01.5	Milk powder and cream powder and powder analogues (plain)	10000 mg/kg	6 & 174	3	265 mg/kg as Al	IDF (as authorized in the Codex Standard 283)
01.6.1	Unripened cheese	10000 mg/kg	6 & 174	3	265 mg/kg as Al	IDF
					Be discontinued	EU (not authorized in STAN 273-1968 on cottage cheese, STAN 275-1993 on cream cheese; EU questions technological need for unripened cheese which do not present rind; alternatives like silicon dioxide, calcium silicate, magnesium silicates or potassium silicate can be used).
01.6.2.1	Ripened cheese, includes rind	10000 mg/kg	6, 174 & 177	3	265 mg/kg as Al	IDF
					Be discontinued	EU (the recent EFSA opinion on aluminium (2008) shared the conclusion of JECFA and highlighted that dairy products, in particular cheese, are among the main contributor of aluminium; because of safety concern, EU recommends to discontinue work on this category;

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
CALCIUM ALUMINIUM SILICATE (INS 556)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
						substitutes are used by the EU industry)
01.6.2.3	Cheese powder (for reconstitution; e.g., for cheese sauces)	10000 mg/kg	6 & 174	3	265 mg/kg as Al	IDF
01.6.4	Processed cheese	10000 mg/kg	6, 174 & 177	3	265 mg/kg as Al	IDF
					Be discontinued	EU (EFSA has highlighted that dairy products, in particular cheese, are among the main contributor of aluminium; because of safety concern, EU recommends to discontinue work on this category)
01.6.5	Cheese analogues	10000 mg/kg	6, 174 & 177	3	265 mg/kg as Al	IDF (should be consistent with other cheese standards)
01.8.2	Dried whey and whey products, excluding whey cheeses	265 mg/kg	6 & 174	3	7 mg/kg as Al	IDF
11.1.2	Powdered sugar, powdered dextrose	15000 mg/kg	6, 56	3	265 mg/kg as Al	CEFS (proposes this ML in line with EU in dried powdered stuffs, including sugars; Note 174 “Singly or in combination: sodium aluminium silicate (INS 554), calcium aluminium silicate (INS 556), and aluminium silicate (INS 559) should be added).
					Be discontinued	EU (due to safety concern, the EU intend to revisit its current authorization on aluminum based food additives in sugar and to withdraw this authorization; sugar is a staple foodstuff which is widely consumed on a daily basis).
12.2.2	Seasonings and condiments	30000 mg/kg	6 & 174	3	875 mg/kg as Al	Brazil – ML reported by food industry necessary to prevent clumping and improving flow ability. The use of sodium aluminum silicate is justified by its round molecular structure, which allows the flow of less crystallized seasonings and condiments along the production site. Therefore, it is not possible the substitute this food additive, but it may be used in combination with other anticaking agents, such as silicate dioxide.
					1140 mg/kg as Al	IFAC (needed for anticaking)

Recommendation 5: The eWG recommends <u>further discussion</u> on the following aluminium-containing food additives provisions:						
CALCIUM ALUMINIUM SILICATE (INS 556)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/Basis	Comments
					1710 mg/kg as Al	ICGMA (used as anticaking agent in seasonings to prevent clumping and improving flow ability)
12.5.2	Mixes for soups and broths	10000 mg/kg	6 & 174	3	570 mg/kg as Al	Brazil – necessary to prevent clumping in highly hygroscopic products.
					1150 mg/kg as Al	IFAC (needed for anticaking)
					570 mg/kg as Al	ICGMA (used as anticaking agent in these mixes to prevent clumping and improving flow ability)
					Be discontinued	EU (not authorized in STAN 117-1981 on bouillon and consommés; calcium phosphates are used as anticaking agents)
12.6.3	Mixes for sauces and gravies	10000 mg/kg	6 & 174	3	570 mg/kg as Al	Brazil – necessary to prevent clumping in highly hygroscopic products.
					1150 mg/kg as Al	IFAC (needed for anticaking)
					1140 mg/kg as Al	ICGMA (used as anticaking agent in these mixes to prevent clumping and improving flow ability)
					Be discontinued	EU (does not support this new proposal on aluminium while PTWI is already exceeded and JECFA recommends to restrict the conditions of its use)

Recommendation 7: The eWG recommends the <u>revocation/discontinuation</u> of the following aluminium-containing food additives provisions:						
SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/Basis	Comments
01.8.2	Dried whey and whey products, excluding whey cheeses	10000 mg/kg		2006	570 mg/kg (as Al)	Brazil – conversion of the adopted ML to AL basis
					20000 mg/kg (1150)	IFAC (needed for anticaking)

Recommendation 7: The eWG recommends the <u>revocation/discontinuation</u> of the following aluminium-containing food additives provisions:						
SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/ Basis	Comments
					mg/kg as Al)	
06.3	Breakfast cereals, including rolled oats	20000 mg/kg	6	3	GMP	Mexico
					20000 mg/kg (1150 mg/kg as Al)	IFAC (needed for anticaking)
					Be discontinued	EU (JECFA raised a safety concern over the exceedance of the PTWI for aluminium by a large extent by some population groups, and spotted explicitly children, who regularly consume foods containing aluminium; the recent EFSA opinion on aluminium shared this conclusion; EU recommends to discontinue the work on this category which is particularly consumed by children)
06.4.3	Pre-cooked pastas and noodles and like products	20000 mg/kg	6	3	GMP	Mexico
					20000 mg/kg (1150 mg/kg as Al)	IFAC (needed for anticaking)
					Be discontinued	Thailand EU (no technological need in pre-cooked pasta)
06.5	Cereal and starch based desserts (e.g., rice pudding, tapioca pudding)	20000 mg/kg	6	3	GMP	Mexico
					20000 mg/kg (1150 mg/kg as Al)	IFAC (needed for anticaking)
					Be discontinued	Thailand EU (JECFA raised a safety concern over the exceedance of the PTWI for aluminium by a large extent by some population groups, and spotted explicitly children, who regularly consume foods containing aluminium; the recent EFSA opinion on aluminium shared this conclusion; EU recommends to discontinue the work on this category which is particularly consumed by children)

Recommendation 7: The eWG recommends the <u>revocation/discontinuation</u> of the following aluminium-containing food additives provisions:						
SODIUM ALUMINOSILICATE (INS 554)						
Function: anticaking agent						
Food Cat. No.	Food Category	Max Level	Notes	Step/Year Adopted	Proposed Levels/Basis	Comments
11.1.2	Powdered sugar, powdered dextrose	15000 mg/kg	56	2006		
14.1.4.3	Concentrates (liquid or solid) for water-based flavoured drinks	10000 mg/kg	6 & 174	3	20000 mg/kg (1150 mg/kg as Al)	IFAC (needed for anticaking)
					5000 mg/kg (no reporting basis)	India
					Be discontinued	EU (strongly opposes to authorize aluminium in flavoured drinks; a child of 20kg reaches the PTWI by consuming around 2.85mg Al/day; at the ML of 1.15 mg Al/g of drink, few ml of drink are sufficient for the child to reach the PTWI) ICBA (would agree to discontinue the draft provision since there are alternative anticaking agents available and commonly used in powdered drinks)