

# Codex General Standard for Food Additives (GSFA) CODEX STAN 192-1995

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# Outline

- What is the GSFA
- The Structure of the GSFA
- Food Additive Requirements
  - (the process/what is required for a food additive provision to be added to the GSFA)

# What is the GSFA?

- An international standard administered by the **Codex Alimentarius Commission** (CAC)



- The CAC is a joint venture between the Food and Agriculture Organization (FAO) and the World Health Organization (WHO)
- formulate **internationally accepted food safety standards** for protection of human health and to ensure fair trade practices

# What is the GSFA?

- Administered by the Codex Committee on Food Additives (CCFA)
- Deals solely with Food Additives:
  - “any substance... the intentional addition of which to food for a technological purpose... may be reasonably expected to result... in it or its by-products becoming a component of or otherwise affecting the characteristics... of such foods.”

# What is the GSFA?

## General Principles of the GSFA: Pre-amble

### **Protect the health of consumers:**

- Only lists food additives determined to be safe by JECFA
- Sets criteria for verifying the compatibility of the listed ML with JECFA's ADI (considers use in all foods)
- Provides criteria for justification of use

### **Ensure fair practices in food trade:**

- Is the single authoritative reference point for food additives
- Only lists food additives subject to an INS designation
- Sets forth use conditions in all foods
- Defines foods in which additives may not be used

# What is the GSFA?

- 16 main food categories (266 total)
- Includes provisions for over 300 additives
- ~2900 adopted provisions (Tables 1 and 2)
- ~3000 draft and proposed draft provisions remaining in the Step process

# Structure of the GSFA

- Preamble
  - Annex A
  - Annex B
  - Annex C
- Table 1
- Table 2
- Table 3
  - Annex to Table 3

# Structure of the GSFA

- Preamble
  - First five pages of GSFA
  - Made up of six sections describing:
    - Scope
    - Definitions
    - General principles for the use of food additives
    - Carry-over of food additives into foods
    - Food category system
    - Description of the standard



# Structure of the GSFA

- Annexes to the Preamble
- Annex A
  - Guidelines for the development of maximum levels for the use of food additives with numerical acceptable daily intakes
- Annex B
  - Food category system
    - Hierarchical system
    - 16 main categories, total of 266 categories when including subcategories
- Annex C
  - Cross reference of GSFA food category system with Codex Commodity Standards

# Structure of the GSFA

- Categorizes food into 16 Food Categories

## FOOD CATEGORY SYSTEM

### PART I: Food Category System

01.0 Dairy products and analogues, excluding products of food category 02.0

01.1 Milk and dairy-based drinks

01.1.1 Milk and buttermilk (plain)

01.1.1.1 Milk (plain)

01.1.1.2 Buttermilk (plain)

01.1.2 Dairy-based drinks, flavoured and/or fermented (e.g. chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)

01.2 Fermented and renneted milk products (plain), excluding food category 01.1.2 (dairy-based drinks)

01.2.1 Fermented milks (plain)

01.2.1.1 Fermented milks (plain), not heat-treated after fermentation

01.2.1.2 Fermented milks (plain), heat-treated after fermentation

01.2.2 Renneted milk (plain)

01.3 Condensed milk and analogues (plain)

01.3.1 Condensed milk (plain)

# Structure of the GSFA

- **GSFA Tables**
- Table 1
  - List of adopted food additive provisions sorted alphabetically by additive name
- Table 2
  - List of adopted food additive provisions sorted by food category (same information as in Table 1)
- Table 3
  - List of additives (and their functional classes) permitted for use in food in general in accordance with good manufacturing practice (GMP)
- Annex to Table 3
  - List of food categories (e.g. fresh fruit) which are excluded from the general conditions of Table 3

# Structure of the GSFA

- Table 1:

<b>ALLURA RED AC</b>				
INS 129	Allura red AC	Functional Class: Colour		
FoodCatNo	FoodCategory	MaxLevel	Notes	Year Adopted
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	300 mg/kg	52 & 161	2009
01.6.2.2	Rind of ripened cheese	100 mg/kg		2009
01.6.4	Processed cheese	100 mg/kg	161	2009
01.6.5	Cheese analogues	100 mg/kg	3	2009
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	300 mg/kg	161	2009
02.4	Fat-based desserts excluding dairy-based dessert products of food category 01.7	300 mg/kg	161	2009

Note 3: Surface treatment.

Note 52: Excluding chocolate milk.

# Structure of the GSFA

- Table 2:

Food Category No. 05.4		Decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces		
Additive	INS	Year Adopted	Max Level	Notes
ACESULFAME POTASSIUM	950	2007	500 mg/kg	161 & 188
ALITAME	956	2007	300 mg/kg	161
ALLURA RED AC	129	2009	300 mg/kg	
ASPARTAME	951	2007	1000 mg/kg	161 & 191
BEESWAX	901	2003	GMP	
BENZOATES	210-213	2003	1500 mg/kg	13
BRILLIANT BLUE FCF	133	2005	500 mg/kg	

Note 13: As benzoic acid.

Note 188: Not to exceed the maximum use level for acesulfame potassium (INS 950) singly or in combination with aspartame-acesulfame salt (INS 962).

# Structure of the GSFA

- **Table 3:**
  - Additives permitted for use in food in general, unless otherwise specified, in accordance with GMP

INS No	Additive	Functional Class	Year Adopted
150a	Caramel I – plain caramel	Colour	1999
290	Carbon dioxide	Carbonating agent, Packaging gas, Preservative, Propellant	1999
410	Carob bean gum	Emulsifier, Stabilizer, Thickener	1999
407	Carrageenan	Bulking agent, Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener	1999
427	Cassia gum	Emulsifier, Gelling agent, Stabilizer, Thickener	2012
140	Chlorophylls	Colour	1999

# Structure of the GSFA

- Annex to Table 3

## **ANNEX TO TABLE THREE**

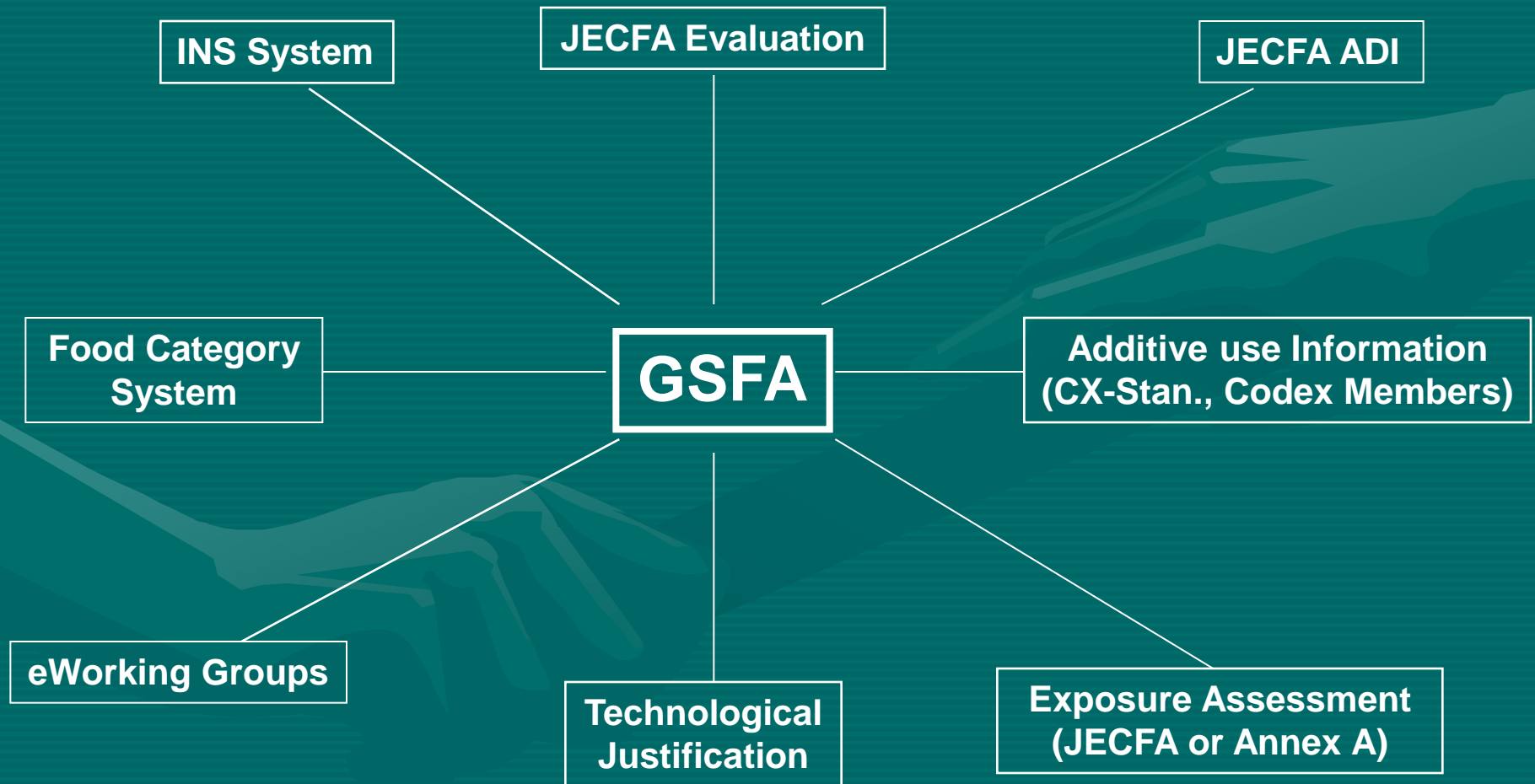
### **Food Categories or Individual Food Items Excluded from the General Conditions of Table Three**

The use of additives listed in Table Three in the following foods is governed by the provisions in Tables One and Two.

<b>Category Number</b>	<b>Food Category</b>
01.1.1	Milk and buttermilk (plain) ( <u>EXCLUDING HEAT-TREATED BUTTERMILK</u> )
01.2	Fermented and renneted milk products (plain) excluding food category 01.1.2 (dairy based drinks) <sup>1</sup>
01.4.1	Pasteurized cream (plain)
01.4.2	Sterilized and UHT creams, whipping or whipped creams, and reduced fat creams (plain)
01.6.3	Whey Cheese
01.6.6	Whey protein cheese
01.8.2	Dried whey and whey products, excluding whey cheese

# Food Additive Requirements

## Inclusion of provision in GSFA





# Food Additive Requirements

- It must have an entry in the **International Numbering System (INS)** –
  - Class Names and the International Numbering System for Food Additives (CAC/GL 036-1989)
  - A harmonized naming system for food additives
  - Also lists accepted technological functions
- Changes/Additions to the INS are administered by CCFA

CAC/GL 36-1989

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## SECTION 3

### INTERNATIONAL NUMBERING SYSTEM FOR FOOD ADDITIVES

*List in numerical order*

INS No.	Name of Food Additive	Functional class	Technological purpose
<b>100</b>	<b>Curcumins</b>		
100(i)	Curcumin	Colour	<i>colour</i>
100(ii)	Turmeric	Colour	<i>colour</i>
<b>101</b>	<b>Riboflavins</b>		
101(i)	Riboflavin, synthetic	Colour	<i>colour</i>
101(ii)	Riboflavin 5'-phosphate sodium	Colour	<i>colour</i>
101(iii)	Riboflavin from <i>Bacillus subtilis</i>	Colour	<i>colour</i>
102	Tartarazine	Colour	<i>colour</i>
103	Alkanet	Colour	<i>colour</i>

# Food Additive Requirements

- It must have been reviewed by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and assigned an Acceptable Daily Intake (ADI).
  - For a new food additive to be evaluated by JECFA, it must be placed on the JECFA priority list. This list is administered by CCFA
  - Prior to reviewing the safety of a food additive, JECFA will put out a “call for data”. All interested members are invited to submit available toxicological and/or exposure data on the additive
  - JECFA meets once a year to examine the submitted data. If sufficient data is submitted, JECFA will either calculate a numerical ADI or list and ADI of “not specified”. JECFA’s review is subsequently published in a monograph  
(<http://www.who.int/foodsafety/chem/jecfa/publications/monographs/en/>).
  - JECFA may also publish an exposure assessment if sufficient data is provided

# Food Additive Requirements

- A provision for the use of a food additive in a certain food category must be submitted to CCFA for inclusion in the GSFA
  - Initial provisions were taken from commodity standards
  - New provisions can be submitted by a Codex Member state
    - Products containing the additive should be in international trade and technological justification as per the preamble should be provided
- The new provision must contain a maximum use level (ML - either numeric or Good Manufacturing Practice (GMP))
  - The ML should correlate to JECFA's ADI
    - Was the proposed use considered by JECFA in their exposure assessment?
    - Codex Members can submit their own exposure information

# Food Additive Requirements

- A proposed provision is considered for inclusion in the GSFA by the CCFA via the **step process**:
  - Steps 1 and 2: The draft provision is prepared and entered into the GSFA as “proposed draft”
  - Step 3 – The proposed draft provision is circulated for comment by CCFA members
  - Step 4 – the comments are reviewed by CCFA
  - Step 5, 6, and 7 – provision is updated as a “draft”, circulated again for comment, and reviewed by CCFA
  - Step 8 – The provision is forwarded to the CAC for formal adoption into the GSFA

# Further information

- GSFA is available at the Codex website:  
<http://www.codexalimentarius.org/>
- Only contains **adopted** (step 8) provisions
- Versions of the full GSFA (including draft and adopted provisions) are made available as information documents in PDF format prior to each meeting of the CCFA
  - [ftp://ftp.fao.org/codex/meetings/ccfa/ccfa46/fa46\\_inf1e.pdf](ftp://ftp.fao.org/codex/meetings/ccfa/ccfa46/fa46_inf1e.pdf)