



Code of Practice

6th Revision (**Non-Flavoring Food Ingredients Section**)

Revision 2026

Code of Practice of the International Organization of the Flavor Industry

Revision of the Non-flavoring Food Ingredients Section of the IOFI Code of Practice – Open for Public Consultation

This version includes only the sections relating to Non-Flavoring Food Ingredients. Other definitions, contextual information, and narrative sections are part of the complete IOFI Code of Practice document.

1 DEFINITIONS AND TERMINOLOGY

1.1 Introduction

Definitions and terminology used in the IOFI Code of Practice are, where applicable, in compliance with definitions and terminology as used in the current *Codex Guidelines for the Use of Flavourings* (CAC/GL 66-2008). Key definitions and Codex references are listed below, together with additional terms for which the *Codex Guidelines* do not offer specific guidance or for which additional guidance is necessary.

- 1.1.1 **Non-flavoring food ingredients** (CAC/GL 66-2008 item 2.3) (see also Chapter 5.3 of the CoP) *are food ingredients, such as food additives (secondary additives to flavorings, introduced in 3.3.2.1) and foodstuffs that can be added to flavorings and are necessary for dissolving, dispersing, or diluting flavorings, or are necessary for the production, storage, handling and use of flavorings.*

1.1.2.1 **Secondary Additives to flavorings**¹ are food additives used in flavorings exerting a technological function in those flavorings and not having a technological function in the final food and beverage to which the flavorings are added. The term does not include processing aids, which do not have any technological function in flavorings themselves. The safety of “secondary additives to flavorings” is based on the fact that they have been evaluated as safe by at least one recognized authority, such as JECFA/Codex, EFSA/EU, Mercosur, Japanese/Chinese/Korean authorities and/or FEMA/FDA.

Based on the Codex Guidelines for the Use of Flavourings (CAC/GL 66-2008, section 3. General Principles for the Use of Flavourings), the following groups of secondary additives to flavorings may be used in the manufacture of flavorings. These are listed under Annex I, Chapter 18.2:

- (a) *Carriers* (including carrier solvents) are materials used to maintain uniformity and dilute concentrated flavorings in order to facilitate their incorporation and dispersion in food products without exerting any technological effect in the final food. Some carriers may also be used for encapsulating flavorings with a view to protect them against evaporation and alterations during storage. Any appropriate foodstuff (e.g., sugars, fats, oils, or food ingredients) may be used to dilute a flavoring and to facilitate its incorporation and dispersion in a food product. The final functions of these materials should be used in accordance with Codex guidelines.
- (b) *Antioxidants* are indispensable for the protection of certain essential oils, especially terpene-containing essential oils, as well as other flavoring substances. To obtain the best protection, it is common practice to add authorized antioxidants to most raw materials at the time of their manufacture.
- (c) *Sequestrants* prevent the catalytic action of certain metal ions and protect the flavoring against oxidation.
- (d) *Preservatives* prolong the shelf-life of certain flavorings by protecting against deterioration caused by microorganisms.
- (e) *Emulsifiers*² form or maintain a uniform emulsion of two or more phases in a food.
- (f) *Stabilizers* make it possible to maintain a uniform dispersion of two or more components.

¹ The term “Secondary additives to flavorings” is the IOFI term, based on the Codex working title/definition (“Non-flavoring food ingredients”). Equivalent terms may be used in different jurisdictions, such as “flavor adjuvants” or “flavor adjuncts” in the United States and China (based on translations from local regulations), or “additives to flavourings” in the European Union.

²According to Codex, “Emulsifiers” also encompass the function of “Weighting Agents.”

(g) *Acids, bases, and their salts* are used to adjust the pH of certain flavorings.

(h) *Anticaking agents* may be necessary to keep powdered flavorings free-flowing.

1.1.2.2 **Food (or ‘foodstuff’)**³ (in line with Codex Alimentarius definition) means any substance, whether processed, semi-processed or raw, which is intended for human consumption, and includes any substance which has been used in the manufacture, preparation or treatment of “food”.

1.1.2 Flavorings produced by enzymatic and microbiological processes (see also Chapter 16 of the CoP) are concentrated preparations, with or without non-flavoring food ingredients, used to impart flavor. They are produced by submitting a substrate or substrates to the action of enzymes or micro-organisms.

1.1.3 **Compounded flavoring**⁴ is a term often used to describe mixtures of flavoring ingredients, some of them complex mixtures themselves, that are combined to provide a particular taste sensation (See also Article 5.1(c) of CODEX STAN 107-1981, rev. 2016). Other non-flavoring food ingredients, such as solvents, emulsifiers and antioxidants are required to allow the compounded flavoring to function properly in the food to which it is added.

The term “compounded flavorings” is consistent with the term “flavorings” as defined under the Codex Guidelines. However, “compounded flavorings” is often used to emphasize the complex mixture nature of flavorings over a single flavoring substance and to protect the intellectual property.

1.1.4 **Food additives** (CAC/GL 36-1989) (Codex Alimentarius Commission, 2023, Section I, Basic Texts and Definitions) *means any substance not normally consumed as a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result, (directly or indirectly) in it or its by-products becoming a component of or otherwise affecting the characteristics of such foods.* The term does not include contaminants or substances added to food for maintaining or improving nutritional qualities.

³ This Codex definition is also in accordance with the EU definition on food (or ‘foodstuff’) under Regulation (EC) No 178/2002 (General Food Law Regulation), Article 2.

⁴ Chapter 4: Hallagan J.B. and Hall R.L. *Food and Chemical Toxicology*. 47, 267. 2009.

1.1.5 **Extraction solvents** (listed under Annex II, Chapter 19) *are used for the manufacturing of certain natural flavoring complexes. Only limited amounts of solvent residues that are technically unavoidable are acceptable in food due to carry-over unless the solvent is also a permitted carrier.*

1.1.6 **Processing Aids** (CAC/GL 75-2010) *means any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, intentionally used in the processing of raw materials, foods or its ingredients, to fulfil a certain technological purpose during treatment or processing and which may result in the non-intentional but unavoidable presence of residues or derivatives in the final product.*

2 INGREDIENTS FOR FLAVORINGS

2.1 Introduction

The present chapter describes the types of ingredients that may be used in food flavorings.

2.2 Flavoring Ingredients

Based on the *Codex Guidelines for the Use of Flavourings* (CAC/GL 66-2008, section 3. *General Principles for the Use of Flavourings*), the following flavoring ingredients may be used in the manufacture of flavorings:

2.3 Non-Flavoring Food Ingredients (“secondary additives to flavorings” and foodstuffs): Permitted materials and conditions of use

Based on the *Codex Guidelines for the Use of Flavourings* (CAC/GL 66-2008):

2.3.1 In accordance with CAC/GL 66-2008 non-flavoring food ingredients can be either food additives (“secondary additives to flavorings”) and/or foodstuffs. Secondary additives to flavorings can be added to flavorings as long as they have been evaluated by at least one recognized authority, such as JECFA/Codex, EFSA/EU, Mercosur⁵, Japanese/Chinese/Korean authorities and/or FEMA/FDA.

2.3.2 The conditions of use according to Codex Guidelines (CAC/GL 66-2008, section

⁵ MERCOSUR/GMC/RES. N° 10/06 (Revision N° 02/07), section 6 “Substances (adjuvants) permitted in the production of flavorings” excluding flavor enhancer and coloring categories.

3.5) note that *flavourings may contain non-flavouring food ingredients, including food additives and foodstuffs, necessary for their production, storage, handling, and use. Such ingredients may also be used to facilitate the dilution, dissolution, or dispersion of flavourings in food. Non-flavouring food ingredients should be:*

- (a) Limited to the lowest level required to ensure the safety and quality of the flavourings, and to facilitate their storage and ease of use;*
- (b) Reduced to the lowest level reasonably possible when not intended to accomplish a technological function in the food itself; and,*
- (c) used in accordance with the provisions of the Codex General Standard for Food Additives (GSFA; CODEX STAN 192-1995) whenever they are intended to provide a technological function in the finished food.*

2.3.3 The principle relating to the carry-over of food additives into foods (the “Carry-Over Principle”) addresses the presence of additives in food as a result of the use of raw materials or other ingredients in which these additives are used.

5.3.3.1 The **conditions applying to Carry-Over of Food Additives** from ingredients and raw materials into foods (CODEX STAN 192-1995, section 4) note that, other than by direct addition, an additive may be present in a food as a result of carry-over from a raw material or ingredient used to produce the food, provided that:

- (a) The additive is acceptable for use in the raw materials or other ingredients (including food additives)*
- (b) The amount of the additive in the raw materials or other ingredients (including food additives) does not exceed the maximum use level specified in the CODEX STAN 192-1995;*
- (c) The food into which the additive is carried over does not contain the additive in greater quantity than would be introduced by the use of raw materials or ingredients under proper technological conditions or manufacturing practice, consistent with the provisions of the CODEX STAN 192-1995.*

2.3.4 The **list of non-flavoring food ingredients** (“secondary additives to flavorings” and foodstuffs) that may be used in flavorings (under Annex I) is non-exhaustive - meaning other materials may be used - and that list shall not be the only reference of information for the IOFI members in this regard.

2.3.4.1 The aforementioned list was derived from an IOFI membership survey identifying non-flavoring food ingredients (“secondary additives to flavorings” and foodstuffs) used in the flavor industry, ensuring market representativeness.

The outcome of this structured approach is the practical list set out in Annex I. The safety of the listed “secondary additives to flavorings” is based on the fact that they have been evaluated as safe⁶ by at least one recognized authority, such as JECFA/Codex, EFSA/EU, Mercosur, Japanese/Chinese/Korean authorities, and/or FEMA/FDA.

- 2.3.5 Additional information, such as the approved functional classes for each substance, can be found in the official regulatory sources, including CODEX STAN 192-1995; EU Regulation No 1130/2011 (Part 4 – food additives including carriers in food flavourings); MERCOSUR/GMC/RES. N° 10/06 (Revision N° 02/07); CAA Japan; FEMA/US FDA; and others.
- 2.3.6 IOFI members must perform their own due diligence to confirm the regulatory status of the listed ingredient for the intended use in flavorings and food within the appropriate jurisdiction. Any local regulation on non-flavoring food ingredients prevails.
- 2.3.7 The INS numbers indicated in the list (under Annex I) refer to those identified in the Codex Class Names and the International Numbering System (INS) for Food Additives (CAC/GL 36-1989). If a certain INS number listed here is not in line with that used in CAC/GL 36-1989, one shall refer to the latter.⁷

⁶ The safety evaluation could be based on the primary or secondary additive.

⁷ Relating to the primary technological effect

3. ANNEX I: LISTS OF FLAVORING AND NON-FLAVORING FOOD INGREDIENTS

3.1 List of Flavoring Ingredients – Global Reference List of Flavorings (GRL)

The GRL can be consulted and downloaded under www.iofi.org.

For further explanations, please refer to Chapter xx and Chapter xx.

Note on Isomers

1. In flavor manufacturing, during the isolation of naturals and/or chemical synthesis, pure stereoisomers, geometric isomers or positional isomers can be obtained, as well as mixtures of isomers of variable compositions.
2. Authoritative bodies involved in the safety assessment of flavoring substances may have reviewed the safety of the stereo-, geometric or positional isomers, or mixtures thereof, as can be deduced from the name, the structural formula or the specifications of the evaluated substance.
3. In assessing whether a particular component or isomer has been positively evaluated, it is important to investigate whether the safety assessment related to the mixture, or to one of the individual components.
 - If the assessment occurred on the mixture, it can be assumed that this assessment remains valid for the safety assessment of the individual components or isomers.
 - In situations where the safety assessment only related to a specific component or isomer, it cannot simply be assumed that this assessment is valid for the mixture or a different isomer of the related compound. In this case a specific safety assessment may be required to cover either the related isomer or the mixture of isomers.

3.2 List of Non-flavoring Food Ingredients (“secondary additives to flavorings” and foodstuffs) that may be used in flavorings^{8 9}

For definitions and explanations regarding the various types of non-flavoring food ingredients listed under this Chapter, please refer to Chapter xx and xx.

⁸ A list of non-flavoring food ingredients *with functional class indications* is available upon request at IOFI Secretariat.

⁹ Salts of non-flavoring food ingredients with the following cations NH₄⁺, Na⁺, K⁺, Ca²⁺ and Fe³⁺, or the anions Cl⁻, SO₄²⁻ and CO₃²⁻ are also accepted.

Substance	INS No.
Acetic acid	INS 260
Acetic acid, Na, K and Ca salts	INS 261-263
Acetic and fatty acid esters of glycerol	INS 472a
Acetylated distarch adipate	INS 1422
Acetylated distarch phosphate	INS 1414
Acetylated oxidized starch	INS 1451
Acid-treated starch	INS 1401
Adipic acid	INS 355
Adipic acid, Na, and K salts	INS 356-357
Agar-Agar	INS 406
Alginate, Na, K, NH ₄ , and Ca salts	INS 401-404
Alginic acid	INS 400
Alkaline-treated starch	INS 1402
Aluminium silicate (Kaolin)	INS 559
Ascorbic acid	INS 300
Ascorbic acid, Na and Ca salts	INS 301-302
Ascorbyl palmitate	INS 304
Beeswax	INS 901
Benzoic acid	INS 210
Benzoic acid, Na, K, and Ca salts	INS 211-213
Benzyl alcohol	INS 1519
Beta-Cyclodextrin	INS 459
BHA (Butylated hydroxyanisole)	INS 320
BHT (Butylated hydroxytoluene)	INS 321
Bleached starch	INS 1403
Calcium aluminium silicate	INS 556
Calcium carbonate	INS 170(i)
Calcium disodium ethylenediaminetetraacetate	INS 385
Calcium silicate	INS 552
Calcium sulfate	INS 516
Candelilla wax	INS 902
Carboxymethyl cellulose, Na salt	INS 466
Carnauba wax	INS 903
Carrageenan	INS 407
Cellulose, microcrystalline	INS 460(i)

Chloride, K, Ca, NH ₄ and Mg salts	INS 508-511
Citric acid	INS 330
Citric acid, Na, K and Ca salts	INS 331-333
Citric and fatty acid esters of glycerol	INS 472c
Damar gum	-
Dextrins, roasted starch	INS 1400
Diacetyl tartaric and fatty acid esters of glycerol	INS 472e
Diammonium phosphate	INS 342(ii)
Disodium ethylenediaminetetraacetate	INS 386
Distarch phosphate	INS 1412
Dodecyl gallate	INS 312
Elemi resin	-
Erythorbic acid	INS 315
Ethyl alcohol	-
Ethyl cellulose	INS 462
Ethyl lactate	-
Ethyl p-hydroxybenzoate	INS 214
Ethyl tartrate	-
Fatty acids, Na, K, and Ca salts	INS 470(i), (ii)
Fumaric acid	INS 297
Gellan gum	INS 418
Ghatti gum	INS 419
Glycerol	INS 422
Glycerol diacetate	INS 1517
Glycerol esters of rosin	INS 445
Glycerol ester of wood rosin (Ester gum)	INS 445(iii)
Glyceryl triacetate (Triacetin)	INS 1518
Glyceryl triesters of aliphatic fatty acids C6-C18	-
Guar gum	INS 412
Gum arabic	INS 414
Hydrochloric acid	INS 507
Hydroxide, K, Ca, NH ₄ and Mg salts	INS 525-528
Hydroxypropyl cellulose	INS 463
Hydroxypropyl distarch phosphate	INS 1442
Hydroxypropyl methyl cellulose	INS 464

Hydroxypropyl starch	INS 1440
Iso-Propylalcohol	-
Karaya gum	INS 416
Konjac flour	INS 425
Lactic acid	INS 270
Lactic acid, Na, K and Ca salts	INS 325-327
Lactic and fatty acid esters of glycerol	INS 472b
Lecithin	INS 322
Locust bean gum (Carob bean gum)	INS 410
Magnesium carbonates	INS 504(i), (ii)
Magnesium silicate	INS 553
Magnesium stearate	INS 470(iii)
Malic acid	INS 296
Malic acid, Na, K and Ca salts	INS 350-352
Mannitol	INS 421
Methyl cellulose	INS 461
Methyl p-hydroxybenzoate	INS 218
Modified Starches	INS 1400-1452
Mono- and di- glycerides of fatty acids	INS 471
Mono-, di- and tri-Calcium orthophosphate	INS 341(i), (ii), (iii)
Monostarch phosphate	INS 1410
Octyl gallate	INS 311
Oxidized starch	INS 1404
Pectins	INS 440
Phosphated distarch phosphate	INS 1413
Phosphates, K and Na mono-dibasic and tribasic salts	INS 339-340
Phosphates, others	INS 450, 451
Phosphoric acid	INS 338
Polydextroses	INS 1200
Polyglycerol esters of fatty acids	INS 475
Polyoxyethylene (20) sorbitan monolaurate	INS 432
Polyoxyethylene (20) sorbitan monooleate	INS 433
Polyoxyethylene (20) sorbitan monopalmitate	INS 434

Polyoxyethylene (20) sorbitan monostearate	INS 435
Polyoxyethylene (20) sorbitan tristearate	INS 436
Polyoxyethylene (40) stearate	INS 431
Polyoxyethylene (8) stearate	INS 430
Potassium aluminium silicate	INS 555
Potassium carbonate	INS 501
Processed eucheuma seaweed (PES)	INS 407a
Propionic acid	INS 280
Propionic acid, Na and K salts	INS 281, 283
Propyl gallate	INS 310
Propyl p-hydroxybenzoate	INS 216
Propylene glycol	INS 1520
Propylene glycol alginate	INS 405
Propylene glycol esters of fatty acids	INS 477
Silicon dioxide, amorphous (silicic acid, colloidal)	INS 551
Sodium aluminium diphosphate	INS 541
Sodium aluminium silicate	INS 554
Sodium carbonate	INS 500(i)
Sodium erythorbate	INS 316
Sodium ethyl para-hydroxybenzoate	INS 215
Sodium hydrogen carbonate	INS 500(ii)
Sodium hydroxide	INS 524
Sodium methyl para-hydroxybenzoate	INS 219
Sodium stearyl-2-lactate	INS 481(i)
Sorbic acid	INS 200
Sorbic acid, Na, K, and Ca salts	INS 201-203
Sorbitan monolaurate	INS 493
Sorbitan monooleate	INS 494
Sorbitan monopalmitate	INS 495
Sorbitan monostearate	INS 491
Sorbitan tristearate	INS 492
Sorbitol	INS 420(i)
Sorbitol syrup	INS 420(ii)
Starch acetate	INS 1420
Starch aluminium octenyl succinate	INS 1452

Starch sodium octenyl succinate	INS 1450
Starches, enzyme treated	INS 1405
Stearic acid, salts	INS 470, 470(i), 470(iii)
Stearyl tartrate	INS 483
Succinic acid	INS 363
Succinic acid, Na	INS 364
Sucroglycerides	INS 474
Sucrose acetate isobutyrate	INS 444
Sucrose esters of fatty acids	INS 473
Sucrose oligoesters, type I and type II	INS 473a
Sulfates, Na, K, Ca, NH ₄ and Mg	INS 514-518
Sulfites, bisulfites, hydrogen sulfites and metabisulfites, Na, K, and Ca salts	INS 221-228
Sulfur dioxide	INS 220
Sulfuric acid	INS 513
Tara gum	INS 417
Tartaric acid	INS 334
Tartaric acid, Ca salt	INS 354
Tartaric acid, Na and K salts	INS 335-337
TBHQ (tert-Butyl hydroquinone)	INS 319
Tetrasodium diphosphate	INS 450(iii)
Tocopherols (natural & synthetic)	INS 306-309
Tragacanth gum	INS 413
Triethyl citrate	INS 1505
Xanthan gum	INS 415
Xylitol	INS 967
Foodstuffs (e.g., dextrin, edible fats, edible oils, gelatin, glucose, hydrogenated vegetable oils, hydrolyzed vegetable protein, lactose, maltodextrin, medium chain triglyceride, sodium chloride (salt), starches (incl. modified starches), sucrose, water, whey powder).	-