

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
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Organization

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Agenda item 2

CRD25

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FATS AND OILS

25th Session

Kuala Lumpur, Malaysia, 27 February - 3 March 2017

REPORT OF THE IN SESSION WORKING GROUP ON FOOD ADDITIVES

Chaired by China, co-chaired by Switzerland,

Participated by Canada, China, European Union, Germany, India, Indonesia, Japan, Malaysia, Norway, Switzerland, Thailand, UK, USA; AOCS, EFEMA, GOED

Introduction

The plenary of 25th CCFO, during the adoption of agenda, decided to establish an In-session Working Group that was scheduled at lunchtime on Monday to discuss Matters referred by CCFA on technological justification for food additives used in fats and oils. The mandate of the in-session Working Group was to discuss matters for action part listed from paragraph 18 to 21 in CX/FO17/25/2 and the proposal presented by the Codex Secretariat in CRD 3.

The Chair of in-session working group briefly introduced the background of the document. The in-session Working Group agreed that the discussion should focus on the request made by CCFA which is mainly on technological justification with considering adopted provisions in GSFA and food additive provisions in related Commodity standards developed by CCFO.

The in-session Working Group agreed to consider the requests in CX/FO17/25/2 in bullet by bullet. The Committee is invited to consider the recommendations made for each of the bullet points and for CRD 3:

Technological Justification for food additives

- Antioxidants in general and lecithin (INS322(i)) in particular in food category 02.1.2 “Vegetable oils and fats”:

The In-session Working Group considered this request as 2 questions separately. The in-session Working Group generally support the use of antioxidants is technologically justified in food category 2.1.2 noting that a group of antioxidants have been approved in GSFA and in CODEX STAN 210-1999. It's noted that some oils (i.e. virgin oils, cold pressed oils) do not require addition of any food additives as indicated in the commodity standards falling under the category 02.1.2 i.e. CODEX STAN 19-1981, CODEX STAN 33-1981 and CODEX STAN 210-1999.

The in-session Working Group generally support the use of lecithin (INS 322(i)) in food category 2.1.2 as antioxidant with exception of virgin oils and olive oils.

Recommendation 1: Use of Antioxidants in FC 02.1.2 “Vegetable oils and fats”

In general, the use of antioxidants is technologically justified in food category 2.1.2 (vegetable oils and fats), except virgin oils and fats. Some oils (i.e. virgin oils, cold pressed oils) do not require addition of any food additives (including antioxidants) as indicated in the commodity standards falling under the category 02.1.2 – i.e. CODEX STAN 19-1981, CODEX STAN 33-1981 and CODEX STAN 210-1999. The use of food additives in such oils is not needed because it could change the nature of oils and mislead the consumer.

Recommendation 2: Use of lecithin (INS322 (i)) in FC 02.1.2 “Vegetable oils and fats”

Lecithin is widely used as antioxidant in vegetable oils and fats as an antioxidant synergist in combination with tocopherols. The use of lecithin in vegetable oils and fats is technologically justified, except for virgin oils and olive oils.

- Tricalcium citrate (INS 333(ii)), tripotassium citrate (INS 332(ii)) in products conforming to the Standards for Edible Fats and Oils not Covered by Individual Standards (CODEX STAN 19-1981), for Olive Oils and Olive Pomace Oils (CODEX STAN 33-1981) and for Named Vegetable Oils (CODEX STAN 210-1999);

The in-session Working Group support the use of tricalcium citrate (INS 333(ii)), tripotassium citrate (INS 332(ii)) can also be used in CS 19-1981 and CS 210-1999 with noting that some citrates i.e. citric acid (INS 330), sodium dihydrogen citrate (INS 331(i)) and trisodium citrate (INS 331(iii)) are already included in CODEX STAN 19-1981 and CODEX STAN 210-1999 as antioxidant synergists. There is no support to the use of citrates in products conforming to CODEX STAN 33-1981.

Recommendation 3: Use of Citrates (INS 333 (ii)) and INS 332 (ii)

Like other citrates, tricalcium citrate (INS 333(ii)), tripotassium citrate (INS 332(ii)) are technologically justified as antioxidant synergists in products conforming to CODEX STAN 19-1981 and CODEX STAN 210-1999.

Since only tocopherols can be used and no other citrates are accepted in the products conforming to CODEX STAN 33-1981, tricalcium citrate (INS 333(ii)) and tripotassium citrate (INS 332(ii)), their use is not technologically justified.

- Lecithin (INS 332(i)) in products conforming to the Standards for Edible Fats and Oils not Covered by Individual Standards (CODEX STAN 19-1981) and for Named Animal Fats (CODEX STAN 211-1999);

The in-session Working Group support the use of lecithin in products conforming to CODEX STAN 19-1981 and CODEX STAN 211-1999. The in-session Working Group also agreed to the use level of lecithin at 30,000 mg/kg.

Recommendation 4: Use of Lecithin in CS 19-1981 and CS 211-1999

Since many antioxidants are included in CODEX STAN 19-1981 and CODEX STAN 211-1999, lecithin could be used as an alternative to other antioxidants or for its synergic effect with other antioxidants. Lecithin may be used at levels up to 30,000 mg/kg.

- Mono- and diglycerides of fatty acids (INS 471) in products conforming to the Standard for Edible Fats and Oils not Covered by Individual Standards (CODEX STAN 19-1989) and in fish oils;

The in-session Working Group noted that Mono- and di-glycerides of fatty acids (471) have been included in the Draft standard for fish oil as emulsifier for use at GMP. The in-session Working Group also support the use of Mono- and di-glycerides of fatty acids in some cases as antifoaming agents.

Recommendation 5: Technological function of Mono- and diglycerides of fatty acids (INS 471)

Mono- and di-glycerides of fatty acids (INS 471) have been included in the draft standard for fish oil as emulsifier for use at GMP where they facilitate incorporation of flavourings and antioxidants. Mono- and diglycerides of fatty acids (INS 471) may be used as antifoaming agent in oils and fats conforming to CODEX STAN 19-1989 for deep frying as an alternative to polydimethylsiloxane (INS 900A).

- Potassium dihydrogen citrate (INS 332(i)), sodium dihydrogen citrate (INS 331(i)), tricalcium citrate (INS 333(iii)), tripotassium citrate (INS 332(ii)), trisodium citrate (INS 331(iii)) and sodium alginate (INS 401) in fish oils.

There is no support on the use of citrates and sodium alginate in fish oils. However, one delegation mentioned that citrates were sometimes used during processing of fats and oils.

Recommendation 6: Technological function of Citrates

No Citrates have been included in the draft standard for fish oils as they are not technologically justified for use in this product.

During the discussion, one delegation asked for clarifying the inconsistency of function class between antioxidant synergists used in the Commodity standards and antioxidants used in the GSFA. It's noted that antioxidant synergists have not been listed as a functional class in CAC GL 36-1989 but only be mentioned as functional purpose under the functional class "antioxidant". Another delegation suggested that Mono- and di-glycerides of fatty acids (INS471) can be used as anti-foaming agents instead of emulsifier in some country. It's also agreed that food additives which have been considered as technologically justified but not included in related Commodity standards should be added to the Commodity standards accordingly. The in-session Working Group therefore agreed that CCFO should consider to review the food additive provisions in standards for fats and oils (except the new fish oil standard) for their alignment with the GSFA and examine as part of this work the inconsistencies of functional classes used in the standards..

Recommendation 7:

CCFO may consider to initiate work on reviewing food additive provisions in standards for fats and oils (except the new fish oil standard) in order to align those with the GSFA or propose, if necessary, modifications to current entries of the GSFA.

Use of specific food additives in food categories relevant to CCFO

- Emulsifiers in general and polyglycerol esters of fatty acids (INS 475), polyglycerol esters of interesterified ricinoleic acid (INS 476), propylene glycol alginate (INS 405), sorbitan esters of fatty acids (INS 491- 495) and stearyl lactylates (INS 481 (i), 482 (i)) specifically in food category 2.1.2

One delegation didn't support to use emulsifiers in FC 2.1.2 because vegetable oils and fats are essentially free from water. However, many other delegations support that emulsifiers can be used in vegetable oils and fats to prevent crystallization of the liquid oil. Cooking vegetable oils will crystallize during storage and on the shelves of air-conditioned supermarket giving misperception of consumers regarding the quality of oils. Polyglycerol esters of acids can be use to enhance consumer perception and prevent food waste.

With understanding the similarity of the emulsifiers functions mentioned by delegations, the in-session Working Group didn't discuss the emulsifiers one by one.

Recommendation 8: Use of emulsifier in FC 2.1.2

Emulsifiers are used and authorized by some Codex members in some fats and oils of food category 2.1.2 (vegetable oils and fats) to prevent e.g. the crystallization of the liquid oil at lower temperatures.

- Acidity regulators in general and tartrates (INS 334, 335 (ii), 337) specifically in food category 2.1.2.

There was no support on the use of acidity regulators in vegetable fats and oils. It was noted that acidity regulators may sometime be needed during processing.

Recommendation 9: Use of acidity regulators in FC 02.1.2

The use of acidity regulators in food category 2.1.2 is not technologically justified.

- Emulsifiers in general and polyglycerol esters of fatty acids (INS 475), polyglycerol esters of interesterified ricinoleic acid (INS 476) and propylene glycol alginate (INS 405) specifically in food category 2.1.3;

There is no support on the use of emulsifiers in this food category. The in-session Working Group also noted that emulsifiers have been included in the draft standard of fish oils, but agreed that fish oil should be exempted from food category 2.1.3 as separated case.

Recommendation 10: Use of Emulsifiers in FC 02.1.3

The use of emulsifiers in food category 2.1.3 (exclude fish oils) is not technologically justified.

- Tartrates (INS 334, 335 (ii), 337) as acidity regulators in food category 2.1.3.

There is no support on the use of acidity regulators in lard, tallow, fish oil and other animal fats.

Recommendation 11: Use of Acidity Regulators in FC 2.1.3

The use of acidity regulators in food category 2.1.3 is not technologically justified

Inconsistent terminology related to the term flavour and flavourings in Codex Texts

The Codex Secretariat made proposal with 2 options in CRD 3 to deal with this issue. One option is to replace the flavoring sentence with sentence read as follows: *Natural and synthetic flavourings used in products covered by this standard shall comply with the Guidelines for the Use of Flavourings (CAC/GL 66-2008).*

Another option is to replace the flavoring sentence with sentence read as follows: *The flavourings used in products covered by this standard shall comply with the Guidelines for the Use of Flavourings (CAC/GL 66-2008)*

With noting that the second option has been already used in the draft standard for fish oil, the in-session Working Group agreed to take same approach in the other commodity standards.

Recommendation 12:

The in-session working group suggested to revise the text pertaining to flavouring in CODEX STAN 19-1981, CODEX STAN 210-1999 and CODEX STAN 256-2007 with the following sentence:

The flavourings used in products covered by this standard shall comply with the Guidelines for the Use of Flavourings (CAC/GL 66-2008).