



**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON NUTRITION AND FOODS FOR SPECIAL DIETARY USES**

Thirty-ninth Session

**Berlin, Germany
4 - 8 December 2017**

**Matters Referred by the Codex Alimentarius Commission
and/or Other Subsidiary Bodies**

A. DECISIONS OF THE 40TH SESSION OF THE COMMISSION (CAC40)

MATTERS FOR INFORMATION

Standards and Related Texts Adopted at Step 8, Step 5/8 and Step 5¹

1. CAC40 adopted the following:
 - Editorial Amendments to the *Standard for Canned Baby Foods* (CXS 73-1981), the *Standard for Processed Cereal-Based Foods for Infants and Young Children* (CXS 74-1981), the *Standard for Follow-up Formula* (CXS 156-1987) and the *Guidelines on Formulated Complementary Foods for Older Infants and Young Children* (CXG 8-1991)²
 - NRV-R for Vitamins D and E and the Conversion Factors for Vitamin E Equivalents for Labelling Purposes in the *Guidelines on Nutrition Labelling* (CXG 2-1985)³
 - Amendment to the *Guidelines on Nutrition Labelling* (CXG 2-1985)⁴
 - Amendment to the *Standard for Canned Baby Foods* (CXS 73-1981)⁵

Amendments to the Procedural Manual⁶

2. CAC40 adopted the following amendments:
 - Principles for the Establishment of Codex Methods of Analysis.⁷
 - Nutritional Risk Analysis Principles and Guidelines for Application to the Work of the Committee on Nutrition and Foods for Special Dietary Uses.⁸

Extension of target year for completion of work⁹

3. CAC40 endorsed the proposals of CCEXEC73 to amend the target year for completion of work on:
 - the revision of the *Standard for Follow-up formula* (CXS 156-1987) to 2019;
 - the definition of biofortification to 2019; and
 - NRV-NCD for EPA and DHA long-chain omega-3 fatty acids to 2018.

B. MATTERS ARISING FROM SUBSIDIARY BODIES AS RELATED TO THE WORK OF CCNFSDU

MATTERS FOR INFORMATION

The 38th Session of the Committee on Methods of Analysis and Sampling (CCMAS38)

Endorsement of methods of analysis provisions and sampling plans in Codex standards¹⁰

¹ REP17/CAC, paras 15-17, 26-32, Appendix III

² REP17/CAC, para 15, Appendix III

³ REP17/CAC, paras 26-32, REP17/NFSDU, Appendix III

⁴ REP17/CAC, para 105, Appendix VIII, REP17/NFSDU, para 12

⁵ REP17/CAC, para 105, Appendix VIII, CX/CAC 17/40/10

⁶ REP17/CAC, paras 11-14, Appendix II

⁷ REP17/MAS, paras 31-36, Appendix III

⁸ REP17/NFSDU, paras 7-12, Appendix II

⁹ REP17/CAC, para 153

¹⁰ REP17/MAS, paras 10, 19-20, Appendix II, part 1

4. CCMAS38 endorsed the methods of analysis proposed by CCNFSDU with the following amendment. These methods were adopted by the CAC40 (See table in Appendix I).

Chromium, molybdenum and selenium

5. CCMAS38 agreed to endorse the new methods for chromium, molybdenum and selenium as Type II and retained or retyped, where necessary, the older methods as Type III.

Total fatty acids

6. CCMAS38 endorsed the AOAC 2012.13|ISO 16958|IDF 231 for total fatty acids, noting that the provision was correct as stated in the *Standard for Infant Formula and Formulas for Special Medical Purposes for Infants* (CXS 72-1981).

7. The Committee is **invited to note** the above information.

MATTERS FOR ACTION

38th Session of the Committee on Methods of Analysis and Sampling (CCMAS38)

***Endorsement of methods of analysis provisions and sampling plans in Codex standards*¹¹**

Chromium, molybdenum and selenium

8. CCMAS38 agreed to inform CCNFSDU of its concerns that the Type III methods may not all meet the requirements necessary for the determination of analytes at the minimum levels stated in the *Standard for Infant Formula and Formulas for Special Medical Purposes Intended for Infants* (CODEX STAN 72-1981) and that CCMAS could reconsider the endorsement of the Type III methods based on validation data to be submitted CCMAS at its next session.

9. The Committee is **invited to consider** this information from CCMAS38.

***Criteria for endorsement of biological methods used to detect chemicals of concern*¹²**

10. CCMAS38 agreed to request CCNFSDU to consider the proposed methods and whether they wished to retain the currently used microbiological methods (See table in Appendix II). The replies from CCNFSDU would be considered by the PWG on endorsement of methods of analysis at CCMAS39.

11. The Committee is **invited to consider** the request from CCMAS38.

***Endorsement of methods of analysis provisions and sampling plans in Codex standards*¹³**

Trans fatty acids¹⁴

12. CCMAS38 agreed to forward information on the methods identified by CCNFSDU on the matrices and levels for which they had been validated for their consideration (See table in Appendix III).

13. The Committee is **invited to consider** this information from CCMAS38.

44th Session of the Committee on Food labelling (CCFL44)

***Discussion paper on Front-Of-Pack Labelling*¹⁵**

General Guidelines to Establish Nutritional Profiles

14. CCFL44 agreed to start new work to develop guidelines on Front-Of-Pack Labelling (FOPL) systems. CCFL44 discussed potential new work to develop general guidelines to establish nutrient profiles, which would supplement the work on FOPL and could be undertaken by CCNFSDU. CCFL44 agreed to request CCNFSDU to consider how it could contribute towards the new work on FOPL.

15. The Committee is **invited to consider** the request from CCFL44.

¹¹ REP17/MAS, paras 19, 21

¹² REP17/MAS, paras 37-40

¹³ REP17/MAS, paras 20-21

¹⁴ REP17/MAS, para 21, Appendix II, part 3

¹⁵ REP18/FL, paras 42-50

APPENDIX I

METHODS OF ANALYSIS ADOPTED BY THE 40TH CODEX ALIMENTARIUS COMMISSION*Methods of analysis for infant formula*

| Provisions | Method | Principle | Type |
|---|------------------------------------|---|------|
| Vitamin C | AOAC 2012.22 ISO/DIS 20635 | HPLC-UV | II |
| Chromium (Section B of CODEX STAN 72-1981 only) | AOAC 2011.19 ISO 20649 IDF 235 | ICP-MS | II |
| | EN 14082 | Graphite furnace atomic absorption after dry ashing | III |
| Molybdenum (Section B of CODEX STAN 72-1981 only) | AOAC 2011.19 ISO 20649 IDF 235 | ICP-MS | II |
| | EN 14083 | Graphite furnace AAS after pressure digestion | III |
| Selenium | AOAC 2011.19 ISO 20649 IDF 235 | ICP-MS | II |
| | EN 14627 | Hydride generation atomic absorption spectrometry (HGAAS) | III |
| Vitamin B12 | AOAC 986.23 | Turbidimetric | III |
| | AOAC 2011.10 ISO 20634 | HPLC | II |
| Myo-Inositol | AOAC 2011.18 ISO 20637 | LC-pulsed amperometry | II |
| Vitamin E | AOAC 2012.10 ISO 20633 | HPLC | II |
| Total fatty acids | AOAC 996.06 | Gas chromatography | III |
| | AOAC 2012.13 ISO16958 IDF231 | Gas chromatography | II |

APPENDIX II

MICROBIOLOGICAL METHODS THAT ARE CURRENTLY USED

VITAMIN B3: NICOTINAMIDE

| Commodity | Provision | Method | Principle | Type | Propose to remove or change | Possible method proposed |
|---------------|-----------------------------------|-------------|---------------|------|-----------------------------|-------------------------------------|
| Special foods | Nicotinamide for milk-based foods | AOAC 944.13 | Microbioassay | II | Yes (III) | HPLC method like EN 15652 (Type II) |

VITAMIN B3: NIACIN

| Commodity | Provision | Method | Principle | Type | Propose to remove or change | Possible method proposed |
|----------------|-----------|---|--------------------------------|------|-----------------------------|-------------------------------------|
| Infant formula | Niacin | AOAC 985.34 (niacin (preformed) and nicotinamide) | Microbioassay And turbidimetry | III | No | HPLC method like EN 15652 (Type II) |

VITAMIN B5: PANTOTHENIC ACID

| Commodity | Provision | Method | Principle | Type | Propose to remove or change | Possible method proposed |
|-------------------|------------------|---|---------------|------|-----------------------------|---|
| Follow-up formula | Pantothenic acid | AOAC 992.07 Measures total pantothenate : free pantothenic acid + bounded forms | Microbioassay | II | II or III | AOAC 2012.16/ISO 20639 UHPLC MS/MS (Type I or II) |

VITAMIN B6: PYRIDOXINE

| Commodity | Provision | Method | Principle | Type | Propose to remove or change | Possible method proposed |
|----------------|------------|---|---------------|------|-----------------------------|---|
| Infant formula | Vitamin B6 | AOAC 985.32 | Microbioassay | III | --- | HPLC-Fluorescence like AOAC 2004.07 or EN 14164 (Type II) |
| Infant formula | Vitamin B6 | CEN 14166 (Aggregates free and bound pyridoxal, pyridoxine and pyridoxine and measures as pyridoxine) | Microbioassay | III | ---- | HPLC – Fluorescence like AOAC 2004.07 or EN 14164 (Type II) |
| Special foods | Vitamin B6 | AOAC 961.15 | Microbioassay | II | type III | HPLC-Fluorescence like AOAC 2004.07 or EN 14164 (Type II) and EN 14663 (includes glycosylated forms) (Free and bound phosphorylated and glycosylated forms measured as the individual forms pyridoxal, pyridoxine and pyridoxamine), HPLC fluorometric method, (Type III) |

VITAMIN B12: COBALAMIN

| Commodity | Provision | Method | Principle | Type | Propose to remove or change | Possible method proposed |
|---------------------|-------------|-------------|------------------------|------|-----------------------------|--|
| Special foods | Vitamin B12 | AOAC 952.20 | Microbioassay | II | Type III | HPLC-UV AOAC 2011.10 / ISO 20634 (Type II) |
| Infant Milk formula | Vitamin B12 | AOAC 986.23 | Bioassay-Turbidimetric | II | Type III | HPLC UV AOAC 2011.10 / ISO 20634 (Type II) |

VITAMIN D: ERGOCALCIFEROL (D2) & cholecalciferol (D3), OTHERS

| Commodity | Provision | Method | Principle | Type | Propose to remove or Change | Possible method proposed |
|---------------|-----------|-------------|--------------|------|-----------------------------|-------------------------------------|
| Special foods | Vitamin D | AOAC 936.14 | Rat bioassay | IV | ---- | HPLC method like EN 12821 (Type II) |

APPENDIX III

METHODS OF ANALYSIS ON TRANS FATTY ACIDS FOR COMMITTEE ON NUTRITION AND FOODS FOR SPECIAL DIETARY USES

Additional Information: Determination of TFA in Collaborative Studies for each method/matrix¹⁶

| Product | Method | | |
|--|--|---|--|
| | ISO 16958/IDF 231/ AOAC 2012.13 (g/100g of product) | AOCS Ce 1h-05 and AOAC 996.06 | AOCS Ce 1j-07 and Ce 2b-11/Ce 2c-11 (g/100g of sample) |
| Dairy and ruminant products/fats | TFA Range: 0.17–5.06 g/100 g (n=5): <ul style="list-style-type: none"> Cheese (extracted fat), 5.06 g/100 g Butter, 4.24 g/100 g Cream, 1.62 g/100 g Milk powder, 1.03 g/100 g Liquid milk, 0.17 g/100 g | Not validated | TFA Range: 0.32–7.27% of total fatty acids (n=5): <ul style="list-style-type: none"> Cheese powder, 7.27% Anhydrous milk fat, 5.11% Butter, 2.49% Evaporated milk, 0.33% Yogurt, 0.32% |
| Adult nutritionals | TFA Range: 0.006–0.010 g/100 g (n=3): <ul style="list-style-type: none"> High protein RTF, 0.009 g/100 g High fat RTF, 0.010 g/100 g Milk-based powder, 0.006 g/100 g | Not validated | Not validated |
| Infant formula | TFA Range: 0.010–0.073 g/100 g (n=4): <ul style="list-style-type: none"> Milk-based powder, 0.073 g/100 g Milk-based RTF, 0.027 g/100 g Milk-based powder, 0.012 g/100 g Soy-based powder, 0.010 g/100 g | Samples unknown | TFA Range: 0.15% of total fatty acids (n=1) <ul style="list-style-type: none"> DHA/EPA-fortified infant formula, 0.15% |
| Samples containing vegetable oils | Not validated | TFA Range: 0.06–45.01% of total fatty acids (n=10): <ul style="list-style-type: none"> Vegetable shortening, 45.01% Canola oil, 26.27% and 26.55% Margarine, 11.62% Hydrogenated lard, 1.00% Lard, 0.90% Sunflower oil, 0.17% Coconut oil, 0.10% and 0.11% Cocoa butter, 0.06% | Not validated |
| Samples containing marine oils or other oils with long chain polyunsaturated fatty acids | Not validated | Not validated | TFA Range: 0.00–0.68% of total fatty acids (n=2): <ul style="list-style-type: none"> Encapsulated DHA/EPA, 0.68% DHA/EPA-fortified orange juice, 0.00% |

¹⁶ Tyburczy et al., Anal. Bioanal. Chem. (2013), 405, 5759

| | | | |
|---|--|----------------------|--|
| <p>Samples with unknown fat sources</p> | | <p>Not validated</p> | <p>TFA Range: 0.00–0.68% of total fatty acids (n=14):</p> <ul style="list-style-type: none"> • Tallow, 7.14% • Chocolate-cake mix, 0.90% • Whole-egg powder, 0.43% • Frozen cheese pizza, 0.37% • Extruded dog food, 0.31% • Creamy ranch-dressing, 0.24% • Potato chips, 0.22% • Peanut butter, 0.06% • Oatmeal cookie, 0.05% • Canned cat food, 0.05% • Full-fat soy flour flakes, 0.02% • Dry cereal fortified with flax, 0.00% • Horse feed, 0.00% • Gamebird feed, 0.00% |
|---|--|----------------------|--|