

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of  
the United Nations



World Health  
Organization

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Agenda Item 7

CX/MAS 15/36/7

## JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING

Thirty-sixth Session  
Budapest, Hungary  
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### REVIEW AND UPDATE OF METHODS IN CODEX STAN 234-1999

Prepared by the Electronic Working Group led by Brazil

#### BACKGROUND:

1. At the 34<sup>th</sup>CCMAS Session, in 2013, updating the references of methods of analysis and related texts was discussed. The Committee agreed that a general single document or database with all the methods of analysis allows permanent and dynamic revision. The Committee agreed to establish an eWG to prepare a discussion paper with proposals: on establishing a format for a single source document (database) to capture all methods in the scope of CCMAS; the process for updating references to methods of analysis; and a plan to prioritize the (re)endorsement of current methods in the Recommended Methods of Analysis and Sampling (CODEX STAN 234-1999) and commodity standards.
2. At the 35<sup>th</sup>CCMAS Session, in 2014, the Committee agreed that the list to be compiled with all methods of analysis would be utilized for internal use of the Committee i.e. for updating the methods and that the mechanism for this process would first be tried before examining the necessity of having it recommended for inclusion in the Procedural Manual.
3. Regarding the information in the list, the Committee noted that the information on performance criteria of an analytical method would be required during endorsement by CCMAS, and agreed that such information would not be necessary at the time of identifying the analytical method that needed review, but agreed that this requirement would remain in the Table 1 (as presented in CRD 22), but that the concerns raised related to proprietary information should be taken into account when developing the single source document.
4. The Committee agreed to establish, an electronic working group, led by Brazil, open to all members and observers, and working in English only, with the following terms of reference:
  - a) compile a single workable list for all methods in CODEX STAN 234-1999 and commodity standards;
  - b) divide the list into workable packages based on the criteria developed by the Committee for prioritization of the methods of analysis;
  - c) conduct a validation exercise on one pilot work package of which the results would be considered by the Committee at its next session.
5. Brazil prepared the compiled list with comments from Argentina, Australia, South Korea, Mauritius, Jamaica, Japan, Republic of Cyprus, Slovak Republic, Switzerland, Uruguay, IDF and NMKL. A list of countries and NGOs that joined the EWG can be found in the Appendix III.

It is important highlight that the criteria for selecting methods of analysis was not discussed in this document.

#### METHOD OF CONSTRUCTION OF THE LIST

6. The eWG noticed that there are 3 ways to make reference to the methodologies, depending on how the methodologies are currently mentioned in the Codex documents: standardized methods published by international organizations; performance criteria required for provision determination and complete description of the method of analysis.
7. The eWG compiled, as a first step, all the standardized methods. The information of this compiled

list was suggested in the last session of the CCMAS (Annex I). This information was joined in a excel file.

8. The sources of information were the reports and ALINORMS of CCMAS and CODEX STAN 234. This work is very susceptible to mistakes and in several cases was difficult to have the traceability from CODEX STAN 234 to report, because the source of information was the Annex tables. The identified methods were compared with the ones in Codex commodity standards to search for inconsistencies, but the methods that are there only in commodity standards were not compiled yet. It will be the next step.

9. The third step will be the development of a list with the performance criteria and the methods that fit in this criteria and the last step will be the compilation of all methods with a full description in Codex commodity standards.

10. The Reports and ALINORMS were evaluated, comparing this information with that in the commodity standards, CODEX STAN 192, CODEX STAN 193, CODEX STAN 228, CODEX STAN 231, CODEX STAN 239 and CODEX STAN 234. The outcomes of this comparison are in the remarks column of Appendices I and II.

11. The dates of the methods are removed because it was agreed at the 34<sup>th</sup> Session due the necessity to use the most recent versions of analytical methods and older version of methods are generally not available, however the Committee agreed to include in the list three types of dates i.e. date of publication of the method, year of endorsement of the method by CCMAS; year of the latest version/revision.

12. A column of prioritization permits to divide the methods in workable packages. In the last CCMAS the Committee agreed with the following prioritization criteria: analytical methods directly linked with food safety, Type I and II methods (reference for disputes), methods with inaccurate information and number of years since endorsement (the oldest first).

13. It was highlighted that as Type II methods are chosen from a bulk of methods and only one is chosen as type II while others become type III for a specific provision, these methods (Type II and Type III) should be reviewed at the same time. The package 1 was subdivided, according with the year of the method endorsement. It was also suggested the Type I methods should be updated first because it is the only method to be used.

14. Based on these criteria and the outcomes of the comparison, the EWG makes the following proposal for prioritization:

- i. Methods with inaccurate information that requires some action by CCMAS, such as methods not readily available, methods with wrong number, methods from IUPAC, methods that have been abandoned or replaced by others and RM methods. It was also considered inaccurate information when there are two different type II methods or when the CODEX STAN 234 and Commodity standards mention different methods for the same provision.
- ii. Type I methods endorsed for over 10 years, related to food safety;
- iii. Type II, III and IV methods endorsed for over 10 years, related to food safety;
- iv. Type I methods endorsed for over 10 years, not related to food safety;
- v. Type II, III and IV methods endorsed for over 10 years, not related to food safety;
- vi. Type I methods endorsed for less than 10 years, related to food safety;
- vii. Type II, III and IV methods endorsed for less than 10 years, related to food safety;
- viii. Type I methods endorsed for less 10 years, not related to food safety;
- ix. Type II, III and IV methods endorsed for less 10 years, not related to food safety.

15. Several eWG participants raised the necessity to define the scope of the provisions "related to food safety". One member suggested "related to food safety" are any method measuring:

- any physiologically relevant elements (e.g. iron, calcium, manganese), or substances (e.g., vitamins, fibers) , mixtures (soluble fibers,..)
- any characteristic of a food (pH, moisture, salt content, concentration of food preservatives) or microorganism (bacteria, moulds, parasites) that plays a role in its stability
- any element, substances, mixtures or state of a food which have to be avoided or kept within some levels: such as lead, mercury, cadmium, mycotoxins, water activity, pH,.."

16. However the SPS Agreement establishing the role of Codex Alimentarius on the food safety measures mentions those related to food additives, veterinary drug and pesticide residues, contaminants and guidelines of hygienic practice. Considering CCMAS term of reference, the methods of analysis related

to food additives and contaminants were considered “related to food safety” for this first screening. The CCMAS should consider if other provisions should be included as related to food safety.

17. This definition of “related to food safety” had no impact in the first package and after a Committee decision will be easy make a new classification if necessary.

18. Other issues discussed by the eWG was the number of the years for the endorsement revision. Most of the participants agreed with 10 years. However, a member of the group suggested that the period of 10 years could be reevaluated after the initial workload has been completed due the rate of technological change.

19. According with these prioritization criteria the methods were divided in 9 packages. The number of the methods per package is shown on Table I.

20. In order to allow the formation of workable packages the methods under prioritization 1 were divided according to number of years since endorsement.

21. There are 215 methods from CCNFSU that were not prioritised for the first and second packages, because of time restriction due the difficulty to find a commodity standard that shows the provisions and the related methods. It would be necessary to go to the CCNFSU reports. The CCNFSU methods with be dealt in the next round.

Table I- Number of Methods by number package

PACKAGE	DESCRIPTION	Nº of METHODS
1.	Methods with inaccurate information endorsed for over 10 years	105
	Methods with inaccurate information endorsed for less than10 years	62
2.	Type I methods endorsed for over 10 years, related to food safety	-
3.	Type II, III and IV methods endorsed for over 10 years, related to food safety	68
4.	Type I methods endorsed for over 10 years, not related to food safety	137
5.	Type II, III and IV methods endorsed for over 10 years, not related to food safety	52
6.	Type I methods endorsed for less than 10 years, related to food safety	-
7.	Type II, III and IV methods endorsed for less than10 years, related to food safety	35
8.	Type I methods endorsed for less 10 years, not related to food safety	199
9	Type II, III and IV methods endorsed for less10 years, not related to food safety	198

22. Each package may also be divided by the responsible Committee and commodity categories, depending on CCMAS decision regarding the process of revision.

23. The eWG has realized that there are several limits and parameters established by the Commodity Committees that don't have the related method of analysis. On the other hand there are methods endorsed that have no provision in any Codex Document.

24. A concern was raised regarding early revision of test methods (e.g. less than 10 years) and whether this would put developing countries at a disadvantage if the endorsed method is one which would not be realistically feasible for the country. However the eWG has not discussed any change in the criteria for selecting methods of analysis.

25. The first and second packages prioritized as number 1 (containing inaccurate information) are in Appendices I and II.

### **CONCLUSIONS AND RECOMMENDATIONS**

26. After compiling the methods in a single list and prioritizing them it is possible to make the following conclusions:

- Almost 20% of the methods from the list were classified as containing inaccurate information that could mean the need to have a harmonized process to update the reference for methods of analysis;
- There are 30 entries in the Annexes I and II corresponding to RM methods or methods described in the Stan, despite the fact that the Codex Alimentarius Commission at its 22<sup>nd</sup> Session (June 1997) abolished the CAC/RM Numbering System;
- There was not a harmonized way to mention the methods in the report. In several cases was difficult to find which report approved or revoked the method.

After conducting this validation exercise the CCMAS should decide regarding to:

- The approach to be adopted for RM methods, such as compile all of them in an annex of CODEX STAN 234;
- The continuation of the revising work;
- The adoption of a harmonized process to update the reference to methods of analysis, including the role of the commodity committees, IAM and Codex Secretariat, and the format for a single source (document, database) to capture all methods in the scope of CCMAS, such as discussed in CX/MAS 14/35/6;
- The adoption of a harmonized report, including a list of non endorsed or revoked methods and the reason for it, which may facilitate the understanding of all the process.

## ANNEX I - METHODS WITH INACCURATE INFORMATION ENDORSED FOR OVER 10 YEARS

Commodities	Source	Provision	Method	Principle	Type	Year Approval	Year Last revision	Year Endorsement by CCMAS	Committee	Remarks
All foods	ALINORM 01/23	Lead, cadmium, copper, iron and zinc	NMKL 161 AOAC 991.10	AAS after microwave digestion	III			2001	CCCF	The method AOAC 991.10 is not for food (Cholinesterase Activity in Whole Blood) It is a typing error, it should be AOAC 999.10.
Bouillons and Consommés	ALINORM 95/23	Tin	AOAC 985.16	Atomic absorption	II			1995	CCSB	a) CODEX STAN 234 doesn't mention this provision . The CODEX STAN 228 doesn't contain methods for tin neither the CODEX STAN 117
Canned mangoes	ALINORM 87/23	Drained weight	CAC/RM 36	–	I			1987	CCPFV	a) The CODEX STAN 234 doesn't mention this provision for this commodity b) The principle is not mentioned in the ALINORM c) The CODEX STAN 159

										doesn't contain methods, but has this provision. d)The CAC/RM were revoked
Canned mangoes	ALINORM 87/23	Water capacity of containers	CAC/RM 46	-	I			1987	CCPFV	a) The CODEX STAN 234 doesn't mention this provision for this commodity b) The principle is not mentioned in the ALINORM c) The CODEX STAN 159 doesn't contain methods, but has this provision. d)The CAC/RM were revoked
Canned mushrooms	Stan 234	Wash drained weight	CAC/RM44	Sieving	I				CCPFV	The report that mention this provision/method was not found. The Codex standard for this commodity was not found.
Cereals, shell fruit and derived	ALINORM 03/23	Sum of aflatoxins B1, B2,	EN 12955 : 1999-07 ISO 16050	HPLC with post column derivatization and	III			2003	CCCF	BS EN 12955:1999 - Superseded, Withdrawn Replaced By : BS EN ISO

Products (including peanuts)		G1 and G2		immunoaffinity column clean up						16050:2011
Cocoa Butter (for all foods)	ALINORM 01/23	Lead	AOAC 999.11 NMKL 139	AAS	II			2001	CCCPC	<p>a) There are methods mentioned in the CODEX STAN 86- According to AOAC 934.07 or IUPAC Method (Pure &amp; Appl. Chem., 63).</p> <p>b) The IUPAC methods are obsolete</p> <p>c) There are methods for lead in Codex Stan 228 934.07 (spectrophotometric method) would not have sufficient limit of determination. NMKL 139 and AOAC 999.11 (AOAC has adopted the NMKL method) have better limit of detection /determination for lead</p>

										and other metals.
Cooked cured chopped meat	ALINORM 95/23	Lead	AOAC 972.25	Atomic absorption	II			1995	CCMPPP	a) There are methods mentioned in the CODEX STAN 98 AOAC 934.07. see above
Cooked cured ham	ALINORM 95/23	Lead	AOAC 972.25	Atomic absorption	II			1995	CCMPPP	a) The CODEX STAN 96 mentions a different method: AOAC 934.07.
Cooked cured ham	ALINORM 95/23	Nitrite	AOAC 973.31	Colorimetry	II			1995	CCMPPP	a) The CODEX STAN 96 doesn't mention this method, only ISO 2918
Cooked cured ham	ALINORM 95/23	Protein	ISO 937	Kjeldahl digestion	II			1995	CCMPPP	a) There are methods mentioned in the CODEX STAN 96 b) The CODEX STAN 96 doesn't mention this method, only ISO Recommendation R 1443 c) The CODEX STAN 234 mentions the provision Protein (conversion factor 6.25)



Cooked cured pork shoulder	ALINORM 95/23	Lead	AOAC 972.25	Atomic absorption	II			1996	CCMPPP	a)The CODEX STAN 97 mentions a different method: AOAC 934.07
Cooked cured pork shoulder	ALINORM 95/23	Nitrite	AOAC 973.31	Colorimetry	II			1995	CCMPPP	a)The CODEX STAN 97 doesn't mention this method, only ISO 2918
Cooked cured pork shoulder	ALINORM 95/23	Protein	ISO 937	Kjeldahl digestion	II			1995	CCMPPP	a) The CODEX STAN 97 doesn't mention this method, only ISO Recommendation R 1443
Degermed maize (corn) meal and maize (corn) grits	CODEX STAN 234	Crude fat	AOAC 945.38F; 920.39C	Gravimetry (ether extraction)	I			1985	CCCPL	a) The Annex of CODEX STAN 155 mentions the method AOAC 945.38F; 920.39C and ISO 5986 (Withdrawn)
Degermed maize (corn) meal and maize (corn) grits	ALINORM 85/23	Protein	ICC 105/1	-	I			1985	CCCPL	CODEX STAN 155 and CODEX STAN 234 mention the method ICC 105/1 . The current version of the method is ICC 105/2
Durum wheat semolina and durum wheat flour	ALINORM 85/23	Protein	ICC 105/1	Titrimetry	I			1985	CCCPL	a)The CODEX STAN 178 mentions this method and also ISO 1871 b) CODEX STAN 234

										mentions the principle Titrimetry, Kjeldahl digestion, type I c) The current version of the method is ICC 105/2
Fluid milk	ALINORM 97/23	Aflatoxin M1 0.05 µg/kg	AOAC 986.16	HPLC	Not describ ed	95		1997	CCMMP	CODEX STAN 234 describes only methods for peanuts
Gari	ALINORM 89/23	Acidity	AOAC 14.064 AOAC 14.065	–	I			1989	CCCPL	a) CODEX STAN 234 does not describe this provision b) CODEX STAN 151 mentions AOAC 14.064 – 14.065 (not found) – or – ISO/DP 7305 for total acidity. The standard was revised in 1995 c) The principle is not mentioned in the ALINORM neither in CODEX STAN 151
Honey	ALINORM 01/23	Acidity	MAFF Validated method V19, J A	Titrimetry	I			2001	CCS	This methods is mentioned in the CODEX STAN 12 and in CODEX STAN 234

			Public Analyst 1992, 28(4) 171-175							b) Method MAFF was not readily available.
Honey	ALINORM 97/23 <sup>A</sup>	Mineral (ash) <1.0%	J. Assoc. Public Analysts (1992) <1.0% 28 (4) 177- 181 MAFF Validated Method V20 for Mineral (ash) in Honey	Gravimetry (ignition at 600°C)	I			1997	CCS	a) This provision is not mentioned in the CODEX STAN 234 b) This method is not readily available
Honey	ALINORM 01/23	Sugars added: detection of corn and cane sugar products.	AOAC 998.12.	Carbon isotope ratio mass spectrometry	I			2001	CCS	a) CODEX STAN 12 does not mention CODEX STAN 234. b) CODEX STAN 234 mention AOAC 978.17 for Sugars added: detection of corn and cane sugar products
Honey	ALINORM 99/23	Sugars added: detection of high	AOAC 979.22	Thin layer chromatography	II			1999	CCS	a) CODEX STAN 12 does not mention CODEX STAN 234. b) CODEX STAN 234

		fructose syrup, corn syrup.								mentions AOAC 978.17 for Sugars added: detection of corn and cane sugar products c) CODEX STAN 12 mentions AOAC 991.41 internal standard for SCIRA (stable carbon isotope ratio analysis). for authenticity
Honey	ALINORM 01/23	Sugars added: for sugar profile	AOAC 998.18	Carbon isotope ratio mass spectrometry	I			2001	CCS	The CODEX STAN 12 mentions the AOAC 977.20 for sugar profile and AOAC 991.41 internal standard for SCIRA. The method AOAC 998.18 was not found
Honey	ALINORM 99/23	Sugars added: for sugar profile	AOAC 977.20	Liquid chromatography	II			1999	CCS	a) The CODEX STAN 12 does not mention CODEX STAN 234. b) This method are mentioned in the CODEX STAN 12. c) CODEX STAN 234 mentions methods

										AOAC 998.18 as type I;
Kimchi	ALINORM 99/23	Drained weight	AOAC 968.30	Gravimetry	I			1999	CCPFV	a) The CODEX STAN 223 / 2001 , mention "See Codex Alimentarius Volume 13". B) CODEX STAN 234 doesn't mention the commodity
Kimchi	ALINORM 99/23	Mineral impurities	AOAC 971.33	Ashing	I			1999	CCPFV	a) a) The CODEX STAN 223 / 2001 , mention "See Codex Alimentarius Volume 13". B) CODEX STAN 234 doesn't mention the commodity c) CODEX STAN 234 mentions method AOAC 971.33 for many products.
Kimchi	ALINORM 99/23	Salt (sodium chloride)	AOAC 971.27	Potentiometry (Determination of chloride, expressed	II			1999	CCPFV	a) a) The CODEX STAN 223 / 2001 , mention "See Codex Alimentarius Volume

				as sodium chloride)						13". B) CODEX STAN 234 doesn't mention the commodity c) CODEX STAN 234 mentions method AOAC 971.27 for many products.
Kimchi	ALINORM 99/23	Total acidity (as lactic acid)	AOAC 942.15	Titrimetry	I			1999	CCPFV	a) a) The CODEX STAN 223 / 2001 , mention "See Codex Alimentarius Volume 13". B) CODEX STAN 234 doesn't mention the commodity c) CODEX STAN 234 mentions method AOAC 942.15 for many products.
Luncheon meat	ALINORM 95/23	Lead	AOAC 972.25	Atomic absorption	II			1995	CCMPPP	a) CODEX STAN 89 mentions a different method: AOAC 934.07
Mango Chutney	ALINORM 91/23	Total soluble solids	AOAC 932.14(c)	-	I			1991	CCPFV	a)There aren't methods in the CODEX STAN 160, just the expression "To

										be completed". b) In the CODEX STAN 234 is not mentioned this provision to this commodity c) There is provision CODEX STAN 160
Margarine	CODEX STAN 234	Milkfat	CAC/RM 15	Titrimetry	I				CCFO	The reference report was not found. There is not reference for this method on CODEX STAN 256
Margarine	CODEX STAN 234	Vitamin D	AOAC 936.14	Bioassay	II				CCFO	The method AOAC 981.17 is mentioned on CODEX STAN 256 as Type II
Margarine	CODEX STAN 234	Vitamin E	IUPAC 2.411	TLC followed by spectrophotometry or GLC	II				CCFO	The reference report was not found. The method ISO 9936 is mentioned in CODEX STAN 256
Margarine	CODEX STAN 234	Water	CAC/RM 17-1969 (described in the Standard)	Gravimetry	I				CCFO	The reference report was not found. There is no reference value for water on CODEX STAN 256

Milk	ALINORM 97/23	Aflatoxin M1	IDF STD. 171	Immunoaffinity column & LC	II	95		1997	CCMMP	CODEX STAN 193 mentions the provision. CODEX STAN 234 mentions only methods for peanuts
Milk & dried milk A-5 (milk powder)	ALINORM 97/23	Aflatoxin M1	IDF Std. 111 A	TLC/LC	Not describ ed	95		1997	CCMMP	CODEX STAN 193 mentions the provision. CODEX STAN 234 mentions only methods for peanuts
Minarine	CODEX STAN 234	Fat	IUPAC 2.801	Gravimetry	I				CCFO	The reference report was not found
Minarine	CODEX STAN 234	Milkfat	CAC/RM 15 (described in the Standard)	Titrimetry	I				CCFO	The reference report was not found. The CODEX STAN 256 does not describe this method.
Minarine	CODEX STAN 234	Sodium chloride	AOAC 971.27 (Codex general method)	Potentiometry	II				CCFO	CODEX STAN 256 mentions for determination of salt content the following methods: IDF 12B: 1988, ISO CD 1738 or AOAC 960.29.



Minarine	CODEX STAN 234	Vitamin A	AOAC 960.45	Spectrophotometry	II				CCFO	CODEX STAN 256 mentions for determination of vitamin A content: AOAC 985.30; AOAC 992.04; or JAOAC 1980, 63, 4.
Minarine	CODEX STAN 234	Vitamin D	AOAC 936.14	Bioassay	II				CCFO	CODEX STAN 256 mentions for determination of vitamin D content According to AOAC 981.17
Minarine	CODEX STAN 234	Vitamin E	IUPAC 2.411	TLC followed by spectrophotometry or GLC	II				CCFO	The reference report was not found. The CODEX STAN 256 mentions for vitamin E content ISO 9936:
Minarine	CODEX STAN 234	Water	CAC/RM 17	Gravimetry	I				CCFO	The reference report was not found. There is no reference value for water on CODEX STAN 256
Natural Mineral Waters	CODEX STAN 234	Spores of sulphite-reducing	ISO 6461-2	Membrane filtration	I				CCNMW	Out of CCMAS scope

		anaerobis (Clostridia)								
Olive Oils and Olive Pomace Oils	CODEX STAN 234	Halogenated solvents, traces	COI/T.20/Doc. no. 8	Gas chromatography	II				CCFO	This method was not found
Pearl millet flour	CODEX STAN 234	Colour	Modern Cereal Chemistry, 6th Ed., D.W. Kent Jones & A.J. Amos, pp 605- 612, Food Trade Press Ltd., London, 1969.	Colorimetry using specific colour grader	IV				CCCPL	The article is not readily available
Pearl millet flour	ALINORM 91/23	Crude Fat	AOAC 945.38F AOAC 920.39C	Gravimetry (ether extraction)	I			1991	CCCPL	a) CODEX STAN 170 mention these methods and ISO 5986 (withdrawn) b)In CODEX STAN 234 mention the method Gravimetry (ether extraction)

Pickled Fruits and Vegetables	ALINORM 07/30/23	Benzoic acid	NMKL 103 or AOAC 983.16	Gas Chromatography	III			2007	CCPFV	<p>a) CODEX STAN 234 doesn't mention this commodity. The Codex Stan 260 mentions these methods.</p> <p>b) The method NMKL-AOAC Method Number 983.16 is for Fish/Fish Homogenate</p> <p>c) NMKL 103 is "Benzoic acid and sorbic acid in foods".</p> <p>The method is tested on apple juice, almond paste, and fish homogenate [at 0.5–2 g/kg levels], NMKL 103 is withdrawn in 2014 due to the use of chloroform.</p>
Powdered sugar (Icing sugar)	CODEX STAN 234	Polarization	ICUMSA GS 2/1/3-15	Polarimetry	I				CCS	<p>a) CODEX STAN 212 mentions to see relevant Codex texts on methods of analysis and sampling</p> <p>b) The ICUMSA GS</p>

										2/1/3-15 method was not found
Powdered sugar (Icing sugar)	ALINORM 95/23	Starch	TBD Proposed AOAC 925.50	Gravimetry	–			1995	CCS	a) The type isn't mentioned in the ALINORM 95. This is not mentioned in CODEX STAN 234 and in the CODEX STAN 212. The CODEX STAN 212 contains provision for starch.
Processed fruits and vegetables	ALINORM 03/23	Fill of containers	CAC/RM 46	Weighing	I			2003	CCPFV	a) The standard was not found. B) The method is described in the CODEX STAN 260 c) CODEX STAN 234 mentions CAC/RM 46-1972 (reference to “metal containers” deleted and refer to ISO 90.1:1999 for determination of water capacity in metal containers)

Quick frozen blocks of fish fillet, minced fish flesh and mixtures of fillets and minced fish flesh	CODEX STAN 234	Sodium Chloride	AOAC 971.21 (Codex general method)	Potentiometry	II				CCFFP	a) There are methods in CODEX STAN 165 b) the method AOAC 971.21 is for Hg.
Quick Frozen Brussels Sprouts	CODEX STAN 234	Cooking Procedure	CAC/RM 33-1970	cooking	I				CCPFV	
Quick frozen fruits and vegetables: Berries, leek and carrot	CODEX STAN 234	Mineral impurities	CAC/RM 54	Flotation and sedimentation	I				CCPFV	
Quick frozen fruits and vegetables	CODEX STAN 234	Net weight	CAC/RM 34-1970	Weighing	I				CCPFV	The reference report was not found
Quick frozen fruits and vegetables	CODEX STAN 234	Thawing procedure	CAC/RM 32-1970	Thawing	I				CCPFV	The reference report was not found
Quick frozen fruits and vegetables: Berries, Whole	CODEX STAN 234	Soluble solids, total	CAC/RM 43	Refractometry	I				CCPFV	The reference report was not found

kernel corn and Corn-on-the-cob										
Quick frozen fruits and vegetables: Peaches and berries	CODEX STAN 234	Drained fruit/drained berries	Described in the Stan	Draining	I				CCPFV	The reference report was not found. The standard for this commodity was not found. The specific Codex commodities don't describe the method
Quick frozen fruits and vegetables: Vegetables	CODEX STAN 234	Cooking procedure	CAC/RM 33-1970	Cooking	I				CCPFV	The reference report was not found
Quick Frozen Green Beans and Quick Frozen Wax Beans	CODEX STAN 234	Tough Strings	CAC/RM 39	Stretching	I				CCPFV	a) CODEX STAN 113 mentions :See relevant Codex texts on methods of analysis and sampling.
Quick frozen peas	CODEX STAN 234	Solids, alcohol insoluble	CAC/RM 35	Gravimetry	II				CCPFV	The reference report was not found
Quick Frozen Spinach	CODEX STAN 234	Dry matter, Salt-free	Described in the Standard	Weighing	I				CCPFV	CODEX STAN 77 doesn't describe the method

Quick Frozen Spinach	ALINORM 78/25	mineral impurities	ISO R 763	–	–			1978	CCPFV	<p>a) CODEX STAN 234 doesn't mention this commodity.</p> <p>b) The CAC/RM were revoked, but the CAC/RM 46-1972 is described in CODEX STAN 234.</p> <p>c) The principle and type aren't mentioned in the ALINORM</p>
Raisins	CODEX STAN 234	Mineral impurities	CAC/RM 51-1974	Ashing	I				CCPFV	The reference report was not found
Raisins	CODEX STAN 234	Mineral oil	CAC/RM 52-1974	Extraction and separation on alumina	II				CCPFV	The reference report was not found
Sorghum flour	CODEX STAN 234	Colour	Modern Cereal Chemistry, 6th Ed., D.W. Kent-Jones and A.J. Amos (Ed.), pp. 605-612, Food Trade Press	Colorimetry using specific colour grader	IV				CCCPL	a) CODEX STAN 173 mentions the same method The article is not readily available

			Ltd, London, 1969.							
Sorghum flour	ALINORM 87/23	Crude Fat	ISO 5986, Animal Feeding Stuffs	–	I			1987	CCCPL	a) CODEX STAN 173 there are methods: AOAC 945.38F, 920.39C and ISO 5986 b)The Stan 234 does not mention ISO 5986 (withdrawn).
Sorghum flour	CODEX STAN 234	Protein	ICC Method No 105/1	Titrimetry, Kjeldahl digestion	I				CCCPL	a) CODEX STAN 173 mention ICC 105/1 and ISO 1871 b) the correct version is ICC 105/2
Sorghum grains	CODEX STAN 234	Fat Crude	AOAC 945.38F, 920.39C	Gravimetry	I				CCCPL	a) CODEX STAN 172 mentions methods AOAC 945.38F and 920.39C and ISO 5986:1983 – animal feedingstuff
Sorghum grains	CODEX STAN 234	Protein	ICC Method No 105/1	Titrimetry, Kjeldahl digestion	I				CCCPL	a) CODEX STAN 172 there are the methods: ICC Method No 105/1 e ISO 1871



										b) the correct version is ICC 105/2
Sugars (fructose and lactose)	ALINORM 97/23A	pH 4.5-7.0	ICUMSA GS 1/2/3/4/7/8- 23	Potentiometry	I			1997	CCS	CODEX STAN 212, item 6. METHODS OF ANALYSIS AND SAMPLING mentions See relevant Codex texts on methods of analysis and sampling. B) The correct method is ICUMSA GS 1/2/3/4/7/8/9-23
Sugars (fructose)	ALINORM 01/23	Conductivity ash	ICUMSA GS 2/3-17	Conductimetry	I			2001	CCS	a) The methods are not mentioned in the CODEX STAN 212. CODEX STAN 212 mentions "see CODEX STAN 234". b) The correct method is ICUMSA GS 2/3/9-17
Sugars (plantation or mill white sugar)	ALINORM 01/23	Invert sugar	ICUMSA GS 2- 6	Titrimetry	I			2001	CCS	a) The methods are not mentioned in the CODEX STAN 212. b) The CODEX STAN 212 mentions "see CODEX

										STAN 234". These methods are different from CODEX STAN 234 that mention ICUMSA GS 1/3/7-3 approved in the ALINORM 1997
Sugars (powdered sugar)	ALINORM 97/23A	Conductivity ash	ICUMSA GS 2/3-17	Conductimetry	I			1997	CCS	a) CODEX STAN 212, item 6. METHODS OF ANALYSIS AND SAMPLING mentions See relevant Codex texts on methods of analysis and sampling. b) The correct method is ICUMSA GS 2/3/9-17
Sugars (powdered sugar)	ALINORM 97/23A	Invert sugar	ICUMSA GS 2/3-5 : after filtration if necessary to remove any anticaking agents	Titrimetry	I			1997	CCS	a) CODEX STAN 212, item 6. METHODS OF ANALYSIS AND SAMPLING mentions See relevant Codex texts on methods of analysis and sampling. B) The ICUMSA GS 2/3-5 method was not found

Sugars (soft brown sugar)	ALINORM 97/23A	Sulphated ash	ICUMSA GS 1/3/4/7/8-11	Gravimetry	I			1997	CCS	a) CODEX STAN 212, item 6. METHODS OF ANALYSIS AND SAMPLING mentions: See relevant Codex texts on methods of analysis and sampling. B) The ICUMSA GS 1/3/4/7/8-11 method was not found.
Sugars (soft white sugar, soft brown sugar, white sugar, plantation or mill white sugar and powdered sugar)	ALINORM 97/23A	Loss on drying	ICUMSA GS 2/1/3-15	Gravimetry	I			1997	CCS	A) CODEX STAN 212, item 6. METHODS OF ANALYSIS AND SAMPLING mentions See relevant Codex texts on methods of analysis and sampling. B) The correct method is ICUMSA Method GS 2/1/3/9-15
Sugars (white sugar)	ALINORM 97/23A	Conductivity ash	ICUMSA GS 2/3-17	Conductimetry	I			1997	CCS	a) CODEX STAN 212, item 6. METHODS OF ANALYSIS AND SAMPLING mentions See relevant Codex texts on methods of

										analysis and sampling. b) The correct method is ICUMSA GS 2/3/9-17
Sugars (white sugar)	ALINORM 97/23A	Invert sugar	ICUMSA GS 2/3-5	Titrimetry	I			1997	CCS	a) CODEX STAN 212, item 6. METHODS OF ANALYSIS AND SAMPLING mentions See relevant Codex texts on methods of analysis and sampling. B) The correct method is ICUMSA GS 2/3/9-5
Vegetable protein products	CODEX STAN 234	Fat	CAC/RM 55-1976 - Method 1 Gravimetry (extraction)	Gravimetry (extraction)	I				CCVP	a) CODEX STAN 174 was approved in 1989 and doesn't mention methods
Wheat flour	CODEX STAN 234	Fat acidity	AOAC 939.05	Titrimetry	I				CCCPL	a) CODEX STAN 152 mentions methods: ISO 7305 and AOAC 939.05
Wheat flour	CODEX STAN 234	Moisture	ISO 712 ICC Method No 110/1	Gravimetry	I				CCCPL	a) CODEX STAN 152 is not mentioned these methods
Wheat flour	CODEX STAN 234	Protein	ICC Method No 105/1	Titrimetry, Kjeldahl digestion	I				CCCPL	a) CODEX STAN 152 mentions the same method: ICC Method No

										105/I b) the correct version is ICC 105/2
Whole and Decorticated Pearl Millet Grain	ALINORM 91/23	Crude fat	AOAC 945.38F AOAC 920.39C	Gravimetry (ether extraction)	I			1991	CCCPL	a) The CODEX STAN 169 mentions these methods and the ISO 5986 (withdrawn)
Bouillons and Consommés	CODEX STAN 234	Amino nitrogen	AIIBP Method No 2/7	Volumetry (modified Van Slyke)	II				CCSB	a) CODEX STAN 117 was approved in 2001 b) Methods AIIBP was not found.
Bouillons and Consommés	CODEX STAN 234	Creatinine	AIIBP Method No 2/5	HPLC	II				CCSB	a) CODEX STAN 117 was approved in 2001 b) Methods AIIBP was not found.
Bouillons and Consommés	ALINORM 95/23	Sodium chloride	AIIBP Method No 2/4	Volhard titrimetry	II			1995	CCSB	a) There are methods mentioned in the Codex STAN 117- Method 2/4 of the AIIBP Official Collection of Methods of Analysis, Revision 1998; AOAC Method 971.27 (Codex general method) based on potentiometric determination );

											<p>c) CODEX STAN 234 mentions a different principle: Potentiometric titration (chloride expressed as sodium chloride).</p> <p>d) The method was not found</p>
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## APPENDIX II – METHODS WITH INACCURATE INFORMATION ENDORSED FOR LESS THAN 10 YEARS

Commodities	Source	Provision	Method	Principle	Type	Year Approval	Year Last revision	Year Endorsement by CCMAS	Committee	Remarks
Blend of sweetened condensed skimmed milk and vegetable fat	REP14/MAS	Milk protein in MSNF	ISO 8968-1/IDF 20-1/AOAC 991.20	Titrimetry (Kjeldahl)	IV		2014 (IDF/ISO)	2014	CCMMP	<p>a) There aren't methods in the CODEX STAN 252 , just the expression see "CODEX STAN 234"</p> <p>b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods ( REPORT 2014 , par. 27) c) The CODEX STAN 234 is not updated regarding to modification of ISO / IDF on 06/09/2014</p> <p>d) It's necessary to harmonize in all protein determination to milk products by kjeldahl the mention of total N x 6,38 in the provision file</p> <p>e) Its necessary to verify the</p>

										equivalence of methods
Canned Apple Sauce	REP13/MAS	Fill of containers	CAC/RM 46-1972 (for glass containers) and ISO 90-1.1 (for metal containers)	Weighing	I			2013	CCPFV	a) There are not methods mentioned in the CODEX STAN 17, just the expression see relevant CODEX Texts on Methods of Analysis b) The CAC/RM were revoked, but the CAC/RM 46 is described in CODEX STAN 234.
Canned Green Peas	ALINORM 09/32/23	Proper fill (in lieu of drained weight)	CAC/RM 45	Pouring and measuring	I			2009	CCPFV	a) CODEX STAN 234 mentions CAC/RM 45 b) CODEX STAN 297 describes CAC/RM 45
Canned Green peas	ALINORM 09/32/23	Types of peas	CAC/RM 48	Visual inspection	I			2009	CCPFV	a) CODEX STAN 234 mentions CAC/RM 48 b) CODEX STAN 297 describes CAC/RM 48.
Canned Green beans	ALINORM 09/32/23	Tough strings	CAC/RM 39	Stretching	I			2009	CCPFV	a) CODEX STAN 234 mentions CAC/RM 39 b) CODEX STAN 297 describes CAC/RM 39. c) The commodity on Stan 234 is canned green beans and wax



										beans
Certain Canned Citrus Fruits	ALINORM 07/30/23	Fill of containers	CAC/RM 46 (Codex General Method for processed fruits and vegetables)	Weighing	I			2007	CCPFV	<p>a) There are methods mentioned in Codex STAN 254: CAC/RM 46-(for glass containers) (Codex general method for processed fruit and vegetables) and ISO 90.1 (for metal containers) (Codex general method for processed fruit and vegetables)</p> <p>b) The ISO 90.1 is not mentioned in ALINORM 2007</p> <p>c) The provision is not mentioned on CODEX STAN 234 for this commodity</p>
Cheese, unripened including fresh cheese	REP14/MAS	Milk protein	ISO 8968-1/IDF 20-1/AOAC 991.20 and 991.23	Titrimetry (Kjeldahl)	I		2014 (IDF/ISO)	2014	CCMMP	<p>a) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods (REPORT 2014 , par. 27)</p> <p>b) The CODEX STAN 234 is not updated regarding to</p>

										modification of ISO / IDF (on 06/09/2014). c) It's necessary to harmonize in all protein determination to milk products by kjeldahl the mention of total N x 6,38 in the provision file d) CODEX STAN 234 mention ISO 8968-1/2IDF 20-1/2
Cocoa Butter	ALINORM 07/30/23	Free fatty acids	ISO660; or AOCS Cd 3d-63 (03)	Titrimetry	I			2007	CCCPC	a) The CODEX STAN 86 mentions the following methods: IUPAC (1987) 2.201. b) The CODEX STAN 234 mentions these methods
Cocoa Butter	ALINORM 07/30/23	Unsaponifiable matter	ISO 3596 or ISO 18609 or AOCS Ca 6b-53 (01)	Titrimetry after extraction with diethyl ether I	I			2007	CCCPC	a)The CODEX STAN 86 mentions IUPAC (1987) 2.401. b) The CODEX STAN 234 mentions these methods
Cream and Prepared Creams	REP14/MAS	Milk protein	ISO 8968-1/IDF 20-1/AOAC 991.20	Titrimetry (Kjeldahl)	I		2014 (IDF/ISO)	2014	CCMMP	a) There isn't provision for Milk Protein on CODEX STAN 275. e) CODEX STAN 234 mentions ISO 8968-1/2 and IDF 20-1/2

										<p>b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods (REPORT 2014 , par. 27) c) The information is outdated on CODEX STAN 234 regarding to ISO/IDF methods (09/06/2014). d) It's necessary to harmonize in all protein determination to milk products by kjeldahl the mention of total N x 6,38 in the provision file.</p>
Edible casein products	REP14/MAS	Milk protein (total N x 6.38 in dry matter)	ISO 8968-1 IDF 20-1	Titrimetry (Kjeldahl)	I		2014 (IDF/ISO)	2014	CCMMP	<p>a)There aren't methods in the CODEX STAN 290, just the expression see "CODEX STAN 234" b) The information is outdated on CODEX STAN 234 regarding to ISO/IDF methods (on 09/06/2014). c) It's necessary to harmonize</p>

										in all protein determination to milk products by kjeldahl the mention of total N x 6,38 in the provision file d) CODEX STAN 234 mention IDF 91 and ISO 5549
Evaporated milks	REP14/MAS	Milk protein in MSNF	ISO 8968-1/ IDF 20-1/ AOAC 991.20 /AOAC 945.48H	Titrimetry (Kjeldahl)	I		2014 (IDF/ISO)	2014	CCMMP	a) There aren't methods in the CODEX STAN 281 b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods (REPORT 2014 , par. 27) c) The CODEX STAN 234 is not updated regarding to modification of ISO / IDF (on 06/09/2014). d) It's necessary to harmonize in all protein determination to milk products by kjeldahl
Fats and oils	REP 11/MAS	Soap content	BS 684 Section 2.5/AOCS Cc 17-95	Gravimetry	I			2011	CCFO	a)The method in the CODEX STAN 19 is BS 684 Section 2.5

Fats and oils not covered by individual standards	REP 12/MAS	Peroxide value	AOCS Cd 8b-90 (11)/ISO 3961	Titrimetry using iso-octane	I			2012	CCFO	<p>a) The methods in the CODEX STAN 19 are IUPAC 2.501 (as amended), AOCS Cd 8b - 90 (97) or ISO 3961: 1998.</p> <p>b) C</p> <p>c) CODEX STAN 234 mention the methods AOCS Cd 8b-90 (11) ISO 3960</p>
Fermented milks	REP14/MAS	Milk Protein	ISO 8968-1 IDF 20-1/AOAC 991.20	Titrimetry (Kjeldahl)	I		2014 (IDF/ISO)	2014	CCMMP	<p>a) There aren't methods in the CODEX STAN 243</p> <p>b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods ( REPORT 2014 , par. 27)</p> <p>c) The CODEX STAN 234 is not updated regarding to modification of ISO / IDF (on 06/09/2014).</p> <p>d) It's necessary to harmonize in all protein determination to milk products by kjeldahl the mention of total N x 6,38 in</p>

										the provision file
Fish sauce	Codex Stan 234	sodium chloride	AOAC 976.18,	potentiometry	II			2012	CCFFP	a) CODEX STAN 302 mentions the methods FAO 1981, Technical Paper 219 AOAC 937.13 or 976.18 or 976.19.
Jams and jellies	ALINORM 09/32/23	fill of containers	CAC/RM 46	Weighing	I			2009	CCPFV	a) CODEX STAN 234 mentions and describes CAC/RM 46; b) CODEX STAN 296 mentions and describes CAC/RM 46 for glass containers and mentions ISO90.1 to metal containers. .
Jams and jellies	ALINORM 09/32/23	Soluble solids	ISO 2173 AOAC 932.14C	Refractometry	I			2009	CCPFV	a) The methods mentioned on CODEX STAN 296 are AOAC 932.14C ISO 2173 (Codex General Method for processed fruits and vegetables) b) The Codex Stan 234 mentions AOAC 932.12
Milk powders and cream	REP14/MAS	Milk Protein	ISO 8968- 1/IDF 20- 1/AOAC	Titrimetry (Kjeldahl)	I		2014 (IDF/ISO)	2014	CCMMP	a) There aren't methods in the CODEX STAN 207 , just the expression see "CODEX

powders			991.21							<p>STAN 234"</p> <p>b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods ( REPORT 2014 , par. 27)</p> <p>c) The CODEX STAN 234 is not updated regarding to modification of ISO / IDF (on 06/09/2014).</p> <p>d) It's necessary to harmonize in all protein determination to milk products by kjeldahl the mention of total N x 6,38 in the provision file e) The name of the provision on 234 and CODEX STAN 207 is Milk Protein ( in MSNF)</p>
Named Animal Fats	REP 11/MAS	Acidity	ISO 660/AOCS Cd 3d-63	Titrimetry	I			2011	CCFO	a)The CODEX STAN 211 mentions IUPAC 2.201 and ISO 660

Named Animal Fats	REP 11/MAS	Copper and Iron	AOAC 990.05/ISO 8294/ AOCS Ca 18b-91	Atomic absorption Spectrophotometry (direct graphite furnace)	II			2011	CCFO	a)The CODEX STAN 211 mentions IUPAC 2631, AOAC 990.05/ISO 8294
Named Animal Fats	REP 11/MAS	GLC ranges of fatty acid composition	ISO 5508/ISO 12966-2/ AOCS Ce 2- 66/Ce 1e- 91/Ce 1f-96	Gas chromatography of methyl esters	II			2011	CCFO	a)The methods in the CODEX STAN 211 are IUPAC 2.301, 2.302 and 2.304 or ISO 5508: 1995/ 5509: 1999. b) The method AOCS Ce1e 91 is not available
Named Animal Fats	REP 11/MAS	Relative density	ISO/AOCS method for apparent density to be inserted	Pycnometry	I			2011	CCFO	a)CODEX STAN 234 mentions type II and doesn't mention the method. b) CODEX STAN 211 mentions the IUPAC 2.101, with the appropriate conversion factor.
Named Animal Fats	ALINORM 07/30/23	Saponification value	ISO 3657 or AOCS Cd 3- 25	Titrimetry	I			2007	CCFO	a CODEX STAN 211 mention IUPAC 2.202 or ISO 3657: 1988.
Named Animal Fats	REP 12/MAS	Iodine value (IV)	ISO 3961/AOAC 993.20/AOCS Cd 1d-92	Wijs-Titrimetry	I			2012	CCFO	a) There are methods in the CODEX STAN 211 IUPAC 2.205/1, ISO 3961: 1996, AOAC 993.20, or AOCS Cd 1d- 1992 (97).



Named Animal Fats	REP 12/MAS	Peroxide value	AOCS Cd 8b-90/ISO 3960	Titrimetry using iso-octane	I			2012	CCFO	a) There are methods in the CODEX STAN 211 IUPAC 2.501 (as amended), AOCS Cd 8b-90 (97) or ISO 3960: 1998.
Named Animal Fats	REP 12/MAS	Unsaponifiable matter	ISO 3596/ ISO 18609/ AOCS Ca 6b-53	Titrimetry after extraction with diethyl ether	I			2012	CCFO	a) There are methods in the CODEX STAN 211: IUPAC 2.401 (part 1-5) or ISO 3596-1: 1988 and Amendment 1 1997, and ISO 3596-2: 1988 and Amendment 1 1999.
Named Vegetable Oils	REP 12/MAS	GLC ranges of fatty acid composition	ISO 5508, ISO 12966-2, AOCS Ce 2-66, AOCS Ce 1-62 and AOCS Ce 1h-05	Gas chromatography of methyl esters	II			2012	CCFO	a) There are methods in the CODEX STAN 210-ISO 5508: 1990 and 5509: 2000; or AOCS Ce 2-66 (97), Ce 1e-91 (01) or Ce 1f-96 (02).
Named Vegetable Oils	REP 11/MAS	Relative density	IUPAC 2.101	Pycnometry	I			2011	CCFO	a) CODEX STAN 234 and CODEX STAN 210 mention IUPAC method
Natural Mineral Waters	CODEX STAN 234	Coliform organism, thermotolerant organism and presumptive Escherichia Coli	ISO 9308-1	Membrane filtration	I				CCNMW	Out of CCMAS scope

Natural Mineral Waters	CODEX STAN 234	Faecal Streptococci	ISO 7899-2	Membrane filtration	I				CCNMW	Out of CCMAS scope
Olive Oils and Olive Pomace Oils	REP 11/MAS	Relative density	IUPAC 2.101, with the appropriate conversion factor See comment above	Pycnometry	I		2011		CCFO	a) CODEX STAN 033 and CODEX STAN 234 mentions the IUPAC method. B) CODEX STAN 234 mentions "Error. Bookmarking not defined"
Pickled Fruits and Vegetables	ALINORM 07/30/23	Fill of containers	CAC/RM 46 (Codex General Method for processed fruits and vegetables)	Weighing	I		2007		CCPFV	a) CODEX STAN 234 doesn't mention this commodity B) There are a full description of methods on CODEX STAN 260 c) The CAC/RM were revoked , but the CAC/RM 46 is described in the CODEX STAN 234.
Preserved Tomatoes	ALINORM 07/30/23	Fill of containers	CAC/RM 46 - Codex General Method for processed fruits and vegetables)	Weighing	I		2007		CCPFV	a) There are methods mentioned in the CODEX STAN 13: CAC/RM 46 (for glass containers) (Codex general method for processed fruit and vegetables) and ISO 90.1 (for

										metal containers) (Codex general method for processed fruit and vegetables) b)The provision "is not mentioned in the Codex Stan 234
Processed Tomato Concentrate	CODEX STAN 234	sodium chloride	AOAC 971.27	Potentiometry	II				CCPFV	a) The CODEX STAN 57 mentions for Sodium Chloride ISO 3634 expressed as sodium chloride (Codex General Method), Potentiometry, type: III.
Processed Tomato Concentrate	ALINORM 07/30/23	Fill of containers	CAC/RM 46 (Codex General Method for processed fruits and vegetables)	Weighing	I			2007	CCPFV	a) CODEX STAN 57 mentions CAC/RM 46-1972 (for glass containers) (Codex general method for processed fruit and vegetables) and ISO 90.1:1999 for metal containers) (Codex general method for processed fruit and vegetables) b)The provision is not mentioned in the Codex Stan 234

Processed Tomato Concentrate	ALINORM 07/30/23	Lactic Acid	EN 2631	Enzymatic determination	II			2007	CCPFV	The CODEX STAN 57 and CODEX STAN 234 mention this method. The method was not found.
Reduced fat blend of Evaporated skimmed milk and vegetable fat	REP14/MAS	Milk protein in MSNF1	ISO 8968-1/IDF 20-1/AOAC 991.20	Titrimetry (Kjeldahl)	IV		2014 (IDF/ISO)	2014	CCMMP	a) There aren't methods in the CODEX STAN 250 b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods (REPORT 2014 , par. 27) c) The CODEX STAN 234 is not updated regarding to modification of ISO / IDF (06/09/2014).
Reduced fat blend of skimmed milk powder and vegetable fat in powdered form	REP14/MAS	Milk protein in MSNF1	ISO 8968-1/IDF 20-1/AOAC 991.20	Titrimetry (Kjeldahl)	IV		2014 (IDF/ISO)	2014	CCMMP	a) There aren't methods in the CODEX STAN 251 b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods (REPORT 2014 , par. 27)

										c) The CODEX STAN 234 is not updated regarding to modification of ISO/IDF ( on 06/09/2014)
Reduced fat blend of sweetened condensed skimmed milk and vegetable fat	REP14/MAS	Milk protein in MSNF <sup>1</sup>	ISO 8968-1/IDF 20-1/AOAC 991.20	Titrimetry (Kjeldahl)	IV		2014 (IDF/ISO)	2014	CCMMP	a) There aren't methods in the CODEX STAN 252" b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods(REPORT 2014 , par. 27) c) The CODEX STAN 234 is not updated regarding to modification of ISO/IDF ( on 06/09/2014)
Sweetened condensed milk	REP14/MAS	Milk protein in MSNF <sup>1</sup>	ISO 8968-1  IDF 20-1/AOAC 991.20 /AOAC 945.48H	Titrimetry (Kjeldahl)	I		2014 (IDF/ISO)	2014	CCMMP	a) There aren't methods in the CODEX STAN 282 b) It was not clear whether AOAC 991.20, listed as equivalent to the method in the Standard, is still equivalent to the newly proposed methods ( REPORT

										2014 , par. 27) c) The CODEX STAN 234 is not updated regarding to modification of ISO / IDF (on 06/09/2014).
Table olives	REP13/MAS	Fill of containers	CAC/RM 46 (for glass containers) and ISO 90-1.1 (for metal containers)	Weighing	I			2013	CCPFV	a) There are methods mentioned in the CODEX STAN 66 b) There are a full description of the method on CODEX/STAN 66 c) The CAC/RM were revoked , but the CAC/RM 46 is described in CODEX STAN 234
Table olives	REP13/MAS	Tin	NMKL 191   EN 15765	ICP-MS	III			2013	CCPFV	a) There isn't mention of these methods in CODEX STAN 234 .The CODEX STAN 66 mentions AOAC 980.19 as Type II

<sup>1</sup> It's necessary to harmonize in all protein determination to milk products by kjeldahl the mention of total N x 6,38 in the provision file

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