

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of the  
United Nations



World Health  
Organization

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Agenda item 5.1

CX/MAS 25/44/6 Add.1

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

Forty-fourth Session

Virtual

5 – 8 May and 14 May 2025

### REVIEW OF METHODS OF ANALYSIS IN CXS 234 - FRUIT JUICES WORKABLE PACKAGE (Comments in reply to CL 2025/16–MAS)

*submitted by*

*Australia, Ecuador, Egypt, Ghana, Iran (Islamic Republic of), Iraq, Peru, Senegal, Thailand, Uzbekistan and  
ICUMSA*

#### Background

1. This document compiles comments received through the Codex Online Commenting System (OCS) in response to CL 2025/16-MAS issued in March 2025. Under the OCS, comments are compiled in the following order: general comments are listed first, followed by comments on specific sections.

#### Explanatory notes on the appendix

2. The comments submitted through the OCS are hereby annexed and presented in a tabulated format.

## ANNEX

GENERAL COMMENTS	MEMBER / OBSERVER
<p>As per our submission to the eWG, we question whether members can make a suitable assessment of the tabulated methods when there is no maximum/minimum specification level for the provision related to authenticity and quality parameters in the standard CXS-247 General Standard for Fruit Juices and Nectars. It had been previously recognised by CCMAS that after harmonisation of methods of analysis, values for the parameters related to authenticity and quality might be established in the future. Unfortunately, we still have a list of methods for analytes, under the provision 'Sections 3.2 Quality criteria and 3.3 Authenticity of CXS 247-2005 with footnote 1 (The verification of a sample's authenticity/quality can be assessed by comparison of data for the sample, generated using appropriate methods included in the standard, with that produced for fruit of the same type and from the same region, allowing for natural variations, seasonal changes and for variations occurring due to processing.) where strictly speaking this is not a provision.</p> <p>We had suggested as part of the eWG review that we use the limit of quantitation to a 'lowest ML supported by the method LoQ', and check against the 'Typical concentration range for the analyte for a range of juices'.</p> <p>We were unable to access the IFU methods but based on the previously explained exchange of methods between CEN and IFU we have assumed in most cases that they are 'identical', prior to EN methods withdrawn on 6 Dec 2023. Apart from EN 14130 Vitamin C which was withdrawn in 2010 without any substitution due to the obtainment of unreliable and noncredible results. 2 (Mazurek et al.,(2021) Application of a New Dehydroascorbic Acid Reducing Agent in the Analysis of Vitamin C Content in Food. Molecules 26(20) 6263)</p> <p>We suggest where several 'analytes' are covered by the same method, as we have done with other commodities, that we do not create 'unique' individual analyte 'combinations' only because they can be measured simultaneously. Also, they be assessed as individual analytes and not as a 'total' of two or more.</p> <p>Where we could, we collated or estimated LoQ for each method and from this derived an 'Estimated lowest ML supported by Method LoQ' (which could be of use to the commodity committee if assigning provision 'values', then compared these to the range of values for fruit juices for compositional provisions, ML assigned for food additives (under food categories 14.1.2.1, 14.1.2.3, 14.1.3.1 or 14.1.3.3) or published for "The verification of a sample's authenticity/quality can be assessed by comparison of data for the sample, generated using appropriate methods included in the standard, with that produced for fruit of the same type and from the same region, allowing for natural variations, seasonal changes and for variations occurring due to processing" (CXS 247-2005 amended 2024 Section 3.4 paragraph 2.)</p>	<p><b>Australia</b></p>
<p>El país considera que el documento presenta comentarios que pueden ser respondidos con la finalidad de orientar debates y toma de decisiones en los grupos de trabajo. Se considera que sería pertinente solicitar información a los países miembros referente a las metodologías donde no se encuentran datos de validación. El país también recomienda que los debates en cuanto a la categorización de metodologías, se focalicen en la especificidad y sensibilidad de las mismas, y no solamente, en las limitaciones dadas por la matriz.</p>	<p><b>Ecuador</b></p>

GENERAL COMMENTS	MEMBER / OBSERVER
<p>For guidance on the points raised in paragraphs 13 and 14,</p> <ol style="list-style-type: none"> <li>1. Ghana suggests that new methods should be endorsed via the method endorsement process for the replacement of the withdrawn ENV 12142 and 12141 while allowing the IFU to publish its methods based on the CEN method.</li> <li>2. Also, new methods should be endorsed via the method endorsement process to replace the IFU 42 (1976) method for determining carbon dioxide content.</li> </ol> <p>1. Ghana endorses the proposed changes to CXS 234-1999, as documented in Appendix I.</p> <p>2. Ghana also supports the suggestion for the items indicated in Appendix II for further consideration. This may help resolve the inconsistencies, remove the outdated method, and address the typing.</p>	<b>Ghana</b>
Agree with proposed	<b>Iraq</b>
<p>El Perú agradece el trabajo realizado por el Grupo de Trabajo Electrónico (GTE) Presidido por Alemania, en el marco de la revisión y actualización de los Métodos de análisis y de muestreo recomendados (CXS 234-1999), solicitando a los miembros del Codex observadores a examinar los apéndices I y II del documento CX/MAS 25/44/6</p>	<b>Peru</b>
<ol style="list-style-type: none"> <li>1. We have no objection with the proposed changes to CXS 234-1999 as presented in Appendix I.</li> <li>2. Provisions that are no longer represented by available methods, as their responsible committee(s) have been disbanded Commodity Committee should consider and decide whether “provisions to determine the quality and authenticity of fruit juices and nectars” that are no longer represented by available methods need to be deleted, as CCMAS’s TOR does not cover the decision to delete provisions for Commodity Standards.</li> <li>3. New methods to replace the unavailable methods</li> </ol> <p>New methods to replace the unavailable methods should be proposed to the commodity committee for its consideration and submission to CCMAS based on the endorsement process. In the case that the committee is adjourned sine die, the new methods should be submitted directly to CCMAS for review by the physical working group (PWG) on endorsement.</p>	<b>Thailand</b>
<p>Uzbekistan notes that methods ENV 12142 and ENV 12141 for the stable isotope analysis of water in fruit juices and nectars are not applied in our country. We support the suspension of the provisions until the corresponding IFU methods are officially published and validated.</p>	<b>Uzbekistan</b>
<p>The update seems sensible but incomplete, due to more information about the status of some methods and lack of replacement methods.</p>	<b>ICUMSA</b>

SPECIFIC COMMENTS	MEMBER / OBSERVER
<p><b>APPENDIX I – Proposed changes to CXS 234-1999</b></p> <p>a. Sucrose by EN 12630 uses a 10g/L standard solution; and NMKL 148 states “The method is intended for samples containing carbohydrates in the following concentration ranges: ...Saccharose: 10 – 30 g/100 g. Lower concentrations can be detected if the sensitivity of the detector and the pump noise permit. Suggesting aLoQ = 100 g/kg, which is not sufficiently sensitive when Sucrose in fruit juices tend to be in the compositional range 0.2-7.9 g/100g. We suggest there are other HPLC methods with better sensitivity and applicable to the fruit juice compositional range and so suggest NMKL 148, EN 12630 or equivalent methods are removed.</p> <p>b. Tartaric acid in grape juice by EN 12137, IFU 65 (if identical to EN 12137) requires sample dilution for grape juice is 1:20, calibration curve 100-500mg/L, which suggests an LoQ = 1000 mg/L. The tartaric acids in fruit nectars are in the range of 0.68 to 0.86 g/ L, and in fruit juices ranged from 3.09 to 4.68 g /L. This method does not have sufficient sensitivity, and needs replacement, as HPLC – UV/Vis methods should be able to support a much lower LoQ e.g. 30 mg/L.</p> <p>c. For essential Oils AOAC 968.20 (Scott distillation, titration) has only been validated on citrus juices, like ISO 1955 (Clevenger method). Should the applicability be limited to citrus juice commodities only?</p> <p>d. The ‘Total dry matter at 70oC’ and ‘Total solids (microwave oven drying)’ are the same provision, named differently to allow co-existence, see footnote “because there is no numerical value in the standard, duplicate Type I methods have been included which may lead to different results”. Not providing a ‘numerical value’ is an issue, much less allowing two Type I methods. Only one of these provisions can be retained.</p> <p>e. We note the method ISO 6557-1:1986 listed for ‘Ascorbic acid-L’ determines the combined ascorbic and dehydroascorbic acid content of fruits, vegetables and derived products measure, so provision should be ‘Vitamin C (dehydro-ascorbic acid and ascorbic acid)’. Previously in ‘CXS 234 amended 2024’ as a Type IV but recommended in Appendix I as a Type I, we suggest this is a ‘rational’ method.</p> <p>f. We note Appendix I methods have a commodity scope of ‘Fruit juices and nectars’ and consider some provisions may require commodity scope limitation based on validation and Type assignment. For example, a provision like Cellobiose which is ‘indicative of pomace liquefaction’, where the reference article suggests ‘Below 4 mg/kg in apple or pear juices produced using normal enzymatic treatments (premium juice)’ and appropriately Type IV status retained. But the Citric acid method AOAC 986.13 was only validated in Cranberry Juice Cocktail and Apple Juice but a retained as Type II for all ‘Fruit juices and nectars’. We note, this question is raised in Appendix II for provision Quinic, malic &amp; citric acid in cranberry juice cocktail and apple juice (permitted ingredients and additives).</p> <p>g. Similar to point f above, for provision ‘Ascorbic acid-L’ by method AOAC 967.21 for ‘Fruit juices and nectars’, this method’s applicability is ‘citrus and tomato juices and not for highly coloured juices or in presence of ferrous Fe, stannous Sn, cuprous Cu, sulfite, or thiosulfite’ has a Type III retained. When then ISO 6557-2 which had scope to accommodate these interferences has been removed and only appear in Appendix II, with a question about validation data. If the ISO 6557-2 validation data can be found, it would appear to be more applicable to appear in Appendix I and AOAC 967.21 to appear in Appendix II.</p> <p>h. Methods are assigned based on single provisions, or with a method which measures multiple provisions, each provision must be assessable against a numerical performance criteria individually. So, we suggest we wouldn’t want the creation of a ‘unique’ provision e.g. ‘Glucose-D and fructose-D’(total) only because they can be measured either independently, or simultaneously (Total) and both have the same molecular weight. It is our suggestion that CCMAS lists these in Appendix I individually i.e. ‘Glucose-D fructose-D’ in this line item and endorse for individual measurement.</p>	<p><b>Australia</b></p>

SPECIFIC COMMENTS	MEMBER / OBSERVER
i. Vitamin C using EN 14130 should be removed from Appendix I as it was withdrawn in 2010 without any substitution due to the obtainment of unreliable and non-credible results 2 (Mazurek et al.,(2021) Application of a New Dehydroascorbic Acid Reducing Agent in the Analysis of Vitamin C Content in Food. Molecules 26(20) 6263).	
Ecuador considera que los cambios propuestos en el Apéndice I están bien fundamentados, actualizando las metodologías descritas a sus versiones disponibles en las bases de datos o páginas oficiales de los métodos de análisis, por lo que, el país está de acuerdo con estos cambios propuestos y los ratifica.	Ecuador
Egypt appreciates the work on the proposed changes and approves the endorsement of Appendix I.	Egypt
Proposed changes in Appendix I endorsed	Iran (Islamic Republic of)
<p>1. CXS 247-2005 (section 4 Additives) METODOS ISO 6557-1:1995 (Debe decir 6557-1:1986)</p> <p>2. Fruit juices and nectars Gluconic acid CXS 247-2005. (Sections 3.2 Quality Criteria and 3.3 Authenticity). 2006. Comentario específico De acuerdo con la propuesta en actualizar el IFU; no obstante, el producto que señala la IFU 76, corresponde a jugos de uva, en tanto se debe modificar la matriz o caso contrario especificar si ha sido validado para otras matrices.</p> <p>3. Fruit juices and nectars Glycerol CXS 247-2005 (Sections 3.2 Quality Criteria and 3.3 Authenticity) IFU 77 (2001) (2005) . Comentario: De acuerdo con la propuesta en actualizar el IFU; no obstante, el producto que señala la IFU 77, corresponde a jugos de uva, en tanto se debe modificar la matriz o caso contrario especificar si ha sido validado para otras matrices.</p> <p>4. Fruit juices and nectars Hesperidin and naringin CXS 247-2005. (Sections 3.2 Quality Criteria and 3.3 Authenticity) EN 12148 IFU 58 (1991) (2005). Comentario: De acuerdo con la propuesta en actualizar el IFU; no obstante el IFU 58, corresponde solo al método hesperidine, de tal manera que naringin debe ser eliminado o especificar si se ha validado tal “disposición”.</p> <p>5. Fruit juices and nectars Sodium, potassium, calcium, magnesium CXS 247-2005 . (Sections 3.2 Quality Criteria and 3.3 Authenticity) EN 1134 IFU 33 (1984) (2005). COmentario: De acuerdo con la propuesta en actualizar el IFU; no obstante la disposición del IFU 33, corresponde a sodio y potasio, en tanto se debe eliminar el magnesio y calcio e indicar los métodos de evaluación de dichos parámetros</p> <p>6. Fruit juices and nectars Vitamin C CXS 247-2005. (Sections 3.2 Quality Criteria and 3.3 Authenticity) EN 14130 (2003). Comentario: Se debe incluir una referencia del método para el parámetro de Vitamina C.</p>	Peru
Le Sénégal soutient les modifications proposées à l'Annexe I du document CX/MAS 25/44/6, considérant qu'elles renforcent la clarté et la pertinence des méthodes applicables aux jus de fruits dans la norme CXS 234-1999.	Senegal
APPENDIX II – Issues for further consideration	
j. Malic acid-D in apple juice by AOAC 995.06 is applicable for determination of 250- 2000 mg D-malic acid/L, suggesting the 'lowest ML supported by Method LoQ' = 1250 mg/L, i.e. not sufficiently sensitive for a compound which practically does not occur in nature (and some have suggested a limit of 5 mg/L). We suggest this method is removed.	Australia

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<p>k. Glucose, fructose, saccharose by EN 12630, IFU 67, NMKL 148 for reasons of insufficient sensitivity (see 11 a. above) should be replaced. We agree with replacement of the 'older' term 'saccharose' with the more common 'sucrose'.</p> <p>l. Vegetables juice for Chloride by AOAC 971.27 (1976), ISO 3634:1979 (ISO website confirms publication in 1979). The methods are not 'identical', AOAC 971.27 is potentiometric, the ISO 3634 is a Volhard method. AOAC 971.27 LoQ = 300 mg NaCl/kg, and we estimated ISO 3634 LoQ = 500 mg NaCl/kg. Note, some studies measure orange juice Chloride as 3.94 mg/L, thus suspect these methods are not sufficiently sensitive compared to the EN 12133 method (which we assume is identical to IFU 37 and appear in Appendix I).</p> <p>m. For essential Oils AOAC 968.20 (Scott distillation, titration) has only been validated on citrus juices, like ISO 1955 (Clevenger method). However, the AOAC 968.20 is more sensitive with estimated LoQ = 0.0006 % v/v, while for ISO 1955 we estimate LoQ = 0.005 % v/v. Considering Essential Oils in Orange juice can range 0.005-0.030% v/v, retaining the AOAC 968.20 (in Appendix I) appears as the better candidate for a single Type I method. Suggest there can only be a single Type I and ISO 1955 is removed.</p> <p>5. Additional kit methods to consider (if appropriate) and suggest inclusion alongside the existing enzymatic determination methods (only one is collaboratively trialled, but others have extensive SLV and approved/published by an SDO:</p> <p>a. Citric acid: AOAC 2024.02 Enzytec™ Liquid Citric Acid for Enzymatic Detn Citric Acid in Selected Foods and Beverages(4) (alongside IFU 22 as Type III).</p> <p>(4 - Lacorn, et al.,(2025) Valid. Enzytec™ Liquid Citric Acid for Enzymatic Detn Citric Acid in Selected Foods and Beverages- First Action 2024.02, J. AOAC Intn. Vol.108(1), p29–46)</p> <p>b. Glucose-D and fructose-D: AOAC 2024.04 Enzytec™ Liquid D-Glucose/D-Fructose for Enzymatic Determination of D-Glucose and D-Fructose in Selected Foods and Beverages(5) (alongside IFU 55, but as Type III).</p> <p>(5 - Lacorn M, Hektor T. Validation of Enzytec™ Liquid D-Glucose/D-Fructose for Enzymatic Determination of D-Glucose and D-Fructose in Selected Foods and Beverages: First Action 2024.04. J AOAC Int. 2025 Mar 11:qsaf019)</p> <p>c. Acetic acid (acetate): AOAC 2024.01 Enzytec™ Liquid Acetic Acid for Enzymatic Determination of Acetic Acid in Selected Foods and Beverages (6) (alongside IFU 66, but as type III).</p> <p>(6 - Lacorn,et al., (2025) Validation of Enzytec™ Liquid Acetic Acid for Enzymatic Determination of Acetic Acid in Selected Foods and Beverages: Official Method 2024.01 First Action, J. AOAC Intn. 2025; 1–17.)</p> <p>d. Alcohol (ethanol): AOAC 2017.07 Determination of Ethanol in Food by Enzymatic Method Enzytec™ Liquid Ethanol, Collaborative Study (7) (alongside IFU 52 as a Type II)</p> <p>(7 Lacorn, et al.,(2023) Determination of Ethanol in Food by Enzymatic Method Enzytec™ Liquid Ethanol, Collab. Study- Final Action 2017.07, JAOACI Vol.106, Iss.2, p341–7)</p> <p>We note in CEN methods e.g. EN 12632:1999, there is a "Note: The determination can also be carried out using a commercially available test kit". As CCMAS does not want to list a method provided by a single supplier, but may wish to 'support' similar validation processes, maybe a single footnote could be given to the enzymatic methods, e.g. "determination can also be carried out using a commercially</p>	

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available test kit(s), preferably with inter-lab validation in accordance to an internationally recognised protocol and approved / published & assigned a standard development organisation method#. But in absence of this preferred option, a single laboratory validation, in accordance to an internationally recognised protocol and approved / published & assigned a standard development organisation method".	
<p>- Question related to Ascorbic acid-L (row no. 1) : Egypt supports the retention of the Type III method as currently listed, despite the absence of available validation data.</p> <p>- Question related to Benzoic acid and its salts (row no. 6) :The ISO methods are updated but differ in scope and concentration limits. Their classification as Type II or III needs careful evaluation along with validation support.</p> <p>- Question related to Quinic, malic &amp; citric acid in cranberry juice cocktail and apple juice (permitted ingredients and additives) (row no. 8): Egypt supports the reclassification to Type II, as it reflects the method's applicability and reliability.</p> <p>- Question related to Benzoic acid (permitted ingredients and additives) (row no. 13) : Given that HPLC methods for benzoic acid and its salts in fruit juices have previously been classified as Type II, we agree that this method for orange juice should be similarly classified to reflect its proven validity and utility. Therefore, Egypt supports updating the classification of this method to Type II.</p> <p>- Question related to Glucose, fructose, saccharose (row no. 19) : Egypt supports revising the terminology to reflect standard scientific nomenclature, changing "saccharose" to "sucrose" for consistency and clarity</p> <p>- Question related to Relative density (row no. 23) : While we acknowledge that relative density is considered a Type I method for fats and oils, we believe that fruit juices and nectars are fundamentally different in composition and intended analysis. In this context, the Type III classification remains appropriate, especially since relative density in juices serves as a supportive parameter for quality and authenticity rather than a primary determinant.</p> <p><b>The methods ENV 12142 (1996) for determining the stable hydrogen isotope ratio of water and ENV 12141 (1996) for determining the stable oxygen isotope ratio of water (Sections 3.2 Quality Criteria and 3.3 Authenticity) have been withdrawn because the committee(s) responsible have been disbanded. Therefore, these relevant provisions to determine the quality and authenticity of fruit juices and nectars are no longer represented by an available method. But IFU will shortly publish methods based on the CEN-method. CCMAS should decide if the provision needs to be deleted, can be put on hold until the IFU methods are published, or new methods should be endorsed via the method endorsement process.</b></p> <p>"Egypt proposes to suspend the relevant provisions ( ENV 12142 and ENV 12141) until the IFU publishes its methods based on the CEN method. This approach would uphold the significance of isotope analysis while waiting for the release of updated and recognized procedures."</p> <p><b>The method IFU 42 (1976) for determining the carbon dioxide content (Section 4 Additives and Section 5 Processing aids) is no longer available by IFU. CCMAS should decide if the provision needs to be deleted, or a new method should be endorsed via the method endorsement process.</b></p> <p>Egypt approves the deletion of the provision referencing IFU method 42, until a new method is adopted in the future.</p>	Egypt



SPECIFIC COMMENTS	MEMBER / OBSERVER
<p>1. Fruit juices and nectars Ascorbic acid-L CXS 247-2005 (section 4 Additives) AOAC 967.21 (1967) ISO 6557-2:1995 A) Titrimetry B) (for strongly chloroured) Spectrometry III? ¿No hay datos de validación disponibles? ¿Tipo de método?. Comentario: No se cuenta con datos de validación, por lo cual se abstiene de los comentarios</p> <p>2. Fruit juices and nectars Ascorbic acid-L CXS 247-2005. (section 4 Additives) IFU 17b (2024) Iodine method III Versión actualizada del método IFU; diferente del método AOAC e ISO, listado por separado . Comentario: Se sugiere incluir los tres métodos, señalados en la IFU; AOAC e ISO.</p> <p>3. Fruit juices and nectars High Fructose Corn Syrup and Hydrolyzed Inulin Syrupin in apple juice (permitted ingredients) CXS 247-2005 Determination of HFCS &amp; HIS by Capillary GC method. AOAC 84, 486 (2001) QAP GC Method Gaschromatography IV Sin cambios, pero no es un método oficial de la AOAC. Comentario: Se sugiere, revisar y actualizar el código del método descrito “AOAC 84, 486”, en tanto se abstiene de la respuesta.</p> <p>4. Fruit juices and nectars Benzoic acid and its salts CXS 247-2005 ISO 5518:1978 2007 2011. ISO 6560:1983 Spectrometry III Método ISO actualizado; métodos no idénticos, 6560 es para productos de frutas/verduras con &gt;200 mg/L (o kg). ¿Cuál es el Tipo II, o son estos Tipo III, con NMKL/IFU en la línea superior identificados como Tipo II? Están en líneas diferentes y no tienen exactamente la misma disposición. No se incluye información de validación. Comentario: Debe mantenerse ISO 5518:2007, la cual fue confirmada en el 2024 . Siendo el Tipo III: ISO 5518:2007 y ISO 6560:1983</p> <p>5. Fruit juices and nectars Preservatives in fruit juices (sorbic acids and its salts) CXS 247-2005 ISO 5519:1978 2008 2011 Spectrometry III Método ISO actualizado; sin información de validación, dos técnicas dentro del método . Comentario: Debe mantenerse: “ISO 5519:2008”, la cual fue confirmada en el 2023.</p> <p>6. Fruit juices and nectars Sulphur dioxide CXS 247-2005. (Section 4 Additives) ISO 5522:1981 1995. ISO 5523:1981 1995 Titrimetry after distillation III Versión actualizada; No idéntico, en caso de controversia, se supone que debe utilizarse la norma ISO 5522 según la norma ISO 5523. Comentario: Debe mantenerse: “ISO 5522:1981, ISO 5523:1981”, las versiones 1995 no existen.</p> <p>7. Fruit juices and nectars Ash CXS 247-2005. (Sections 3.2 Quality Criteria and 3.3 Authenticity) EN 1135. IFU 9 (1989) (2005): 500-550°C AOAC 940.26 (1940): 525°C Gravimetry I Método EN retirado, método IFU actualizado. Hay múltiples temperaturas para las cenizas. IFU y AOAC no son idénticos dadas las diferentes temperaturas. ¿Cuál es el método de Tipo I?. Comentario: De acuerdo con la propuesta: “El método IFU 9 (2005): 500-550°C”; debería indicar para Tipo I.</p> <p>8. Vegetables juice Chloride CXS 247-2005 AOAC 971.27 (1976). ISO 3634:1979 1995 Titration II Sin cambios; ¿Pero los métodos son idénticos?. Comentario: De acuerdo con la propuesta, sin embargo, Debe mantenerse: “ISO 3634:1979”; la cual fue confirmada en el 2024.</p> <p>9. Citrus fruit Essential oils in citrus fruit CXS 247-2005. (Sections 3.2 Quality Criteria and 3.3 Authenticity) ISO 1955:1982 1995 Distillation and direct reading of the volume determination I Sin cambios, pero el método solo está validado para los cítricos; ¿Puede seguir siendo un Tipo I separado, ya que es solo para los cítricos? Había una nota sobre múltiples Tipos I en CXS 247 para estos métodos . Comentario: Debe mantenerse: “ISO 1955:1982”; la cual fue confirmada en el 2022.</p> <p>10. Fruit juices and nectars Glucose, fructose, saccharose CXS 247-2005 (Section 3.1.2 Permitted ingredients) EN 12630 IFU 67 (1996) (2005) NMKL 148 (1993) High performance liquid chromatography (HPLC) II Método EN retirado, método IFU actualizado; es necesario verificar si</p>	Peru



SPECIFIC COMMENTS	MEMBER / OBSERVER
<p>el método NMKL y el método IFU son equivalentes; ¿Debería revisarse para que diga: Glucosa, fructosa, sacarosa?. Comentario: No se cuenta con mayor información, motivo por el cual se abstiene de comentarios.</p> <p>10 . Apple juice High Fructose Corn Syrup and Hydrolyzed Inulin Syrup CXS 247-2005. (Section 3.1.2 Permitted ingredients) JAOAC 84, 486 (2001) Capillary gas chromatography (CAP GC Method). Gaschromatography IV Sin cambios, pero solo validado para el zumo de manzana; ¿Tipo de método? La referencia de la revista no es un método oficial. Comentario: Se sugiere, revisar y actualizar el código del método descrito “JAOAC 84, 486”, ya que no se encuentra; por lo que, se abstiene de la respuesta.</p> <p>11. Fruit juices and nectars pH-value CXS 247-2005. (Sections 3.2 Quality Criteria and 3.3 Authenticity) EN 1132. IFU 11 (1989) (2015) ISO 1842:19911995 Potentiometry IV Método EN retirado; Versión actualizada del método IFU; es necesario verificar si el método ISO y el IFU son equivalentes. Comentario: De acuerdo con la propuesta, sin embargo, Debe mantenerse: “ISO 1842:1991”, la cual fue confirmada en el 2023.</p> <p>12. Pulp of fruit juices and nectars Stable carbon isotope ratio CXS 247-2005 (Sections 3.2 Quality Criteria and 3.3 Authenticity) ENV 13070 (1998) Analytica Chimica Acta 340 (1997) Stable isotope mass spectrometry II Método EN retirado; se publicará en breve como método IFU (basado en CEN); ¿Cálculo? ¿Tipo? COMENTARIO: Precisar los métodos indicados para analizar la propuesta. Se necesita más información, por lo tanto, se abstiene de la respuesta.</p> <p>13. Fruit juices and nectars Stable carbon isotope ratio of sugars from fruit juices CXS 247-2005 (Sections 3.2 Quality Criteria and 3.3 Authenticity) ENV 12140 (1996) Analytica Chimica Acta 271 (1993) Stable isotope mass spectrometry II Método EN retirado; se publicará en breve como método IFU (basado en CEN), ¿Calculo?¿tipo? COMENTARIO: Precisar los métodos indicados para analizar la propuesta. Se necesita más información</p> <p>14. Fruit juices and nectars Stable hydrogen isotope ratio of water CXS 247-2005 (Sections 3.2 Quality Criteria and 3.3 Authenticity) ENV 12142 (1997) Stable isotope mass spectrometry II Método EN retirado, no hay método disponible; ¿Cálculo? ¿Tipo? COMENTARIO: No se cuenta con mayor información, motivo por el cual se abstiene de comentarios.</p> <p>15. Fruit juices and nectars Stable oxygen isotope ratio of water CXS 247-2005 (Sections 3.2 Quality Criteria and 3.3 Authenticity) ENV 12141 (1997) Stable isotope mass spectrometry II Método EN retirado, no hay método disponible; se publicará en breve como método IFU (basado en CEN); ¿Cálculo? ¿Tipo?COMENTARIO: No se cuenta con mayor información, motivo por el cual se abstiene de comentarios.</p> <p>16. Orange juice Sugar beet derived syrups in frozen concentrated orange juice CXS 247-2005 (Sections 3.2 Quality Criteria and 3.3 Authenticity) AOAC 992.09 (1997) Oxygen isotope ratio analysis (<math>\delta^{18}\text{O}</math> in water) I Sin cambios; referencia de la revista; ¿Cálculo? ¿Tipo? COMENTARIO: No se cuenta con mayor información, motivo por el cual se abstiene de comentarios.</p>	
<p>Afin de contribuer aux discussions du groupe de travail sur l’approbation, le Sénégal soumet des propositions concernant les questions à approfondir, telles que présentées aux paragraphes 13 et 14 du document CX/MAS 25/44/6 ainsi que dans l’annexe II. À cet effet, le Sénégal recommande que le Comité envisage de confirmer une nouvelle méthode par le biais du processus de confirmation des méthodes.</p>	Senegal