CODEX ALIMENTARIUS COMMISSION E

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World Health Organization

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Agenda Item 5c **CX/FA 14/46/10**

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FOOD ADDITIVE PROVISIONS OF FOOD CATEGORY 12.2.3 « GRAPE WINES » AND ITS SUB-CATEGORIES

Prepared by an electronic Working Group led by France with the assistance of Argentina, Australia, Brazil, Canada, China, European Union, France, Ghana, Hungary, Italy, Japan, Malaysia, New Zealand, Spain, the United States of America, Uruguay, FIVS, OIV

Background

1. The 43rd Session of the Codex Committee on Food Additives (CCFA) agreed to consider at its next session the provisions in Table 1 and 2 of the General Standard for Food Additives (GSFA) for those food additives in Table 3 with the function “acidity regulators” or "emulsifiers, stabilizers, thickeners”. A list of Table 3 additives with the technical function "acidity regulator" or "emulsifiers, stabilizers, thickeners” was provided in Appendix X of REP 11/FA, with the additives grouped by functional class.[1]

2. To facilitate the consideration of these groups of food additives, the 43rd Session of the CCFA also agreed to take a horizontal approach, i.e. to identify those food categories in the Annex to Table 3 in which the use of “acidity regulators” or “emulsifiers, stabilizers, thickeners” was technologically justified and those food categories in which it was not. The Committee agreed to establish an electronic Working Group (eWG), led by the United States of America, to develop this approach for use by the physical Working Group (pWG) on the GSFA when recommending final adoption, discontinuation, or revocation of the food additives provisions in Table 1 and 2 for the “acidity regulators” and “emulsifiers, stabilizers, thickeners” in Table 3.

3. The eWG on the GSFA for the 44th Session of the CCFA prepared proposals for the horizontal approach for both “acidity regulators” and “emulsifiers, stabilizers, thickeners”.[2] The pWG on the GSFA at the 44th Session of the CCFA considered the horizontal approach for “acidity regulators” proposed by the eWG and provided subsequent recommendations to the 44th Session of the CCFA.[3] These recommendations classified the food categories in the Annex to Table 3 where acidity regulators were: (i) acceptable and technologically justified; (ii) not justified; and (iii) should be considered on a case-by-case basis. The Committee agreed: (i) to discontinue work on the provisions in Tables 1 and 2 for food additives listed in Table 3 with “acidity regulators” function in those food categories were their uses were not justified; and (ii) that an eWG should consider the implementation of the recommendations of the pWG for food categories where acidity regulators are technologically justified or considered on a case-by-case basis. The Committee was not able to discuss the horizontal approach for food additives listed in Table 3 with “emulsifiers, stabilizers, thickeners” function due to time constraints, and agreed that the eWG should further refine the horizontal approach for consideration of food additives listed in Table 3 with “emulsifiers, stabilizers, thickeners” function.[4]

4. The pWG on the GSFA for the 45th Session of the CCFA was not able to discuss the provisions listed in Appendix 2 of CX/FA 13/45/7 for food additives with the technological function “acidity regulators” in food category 14.2.3 (Grape wine) and its sub-categories in detail. The pWG concluded that it would be appropriate for these provisions to be addressed by an eWG, and that this eWG should also consider the provisions for emulsifiers, stabilizers and thickeners in this food category listed in Appendix 3 of CX/FA

[1] REP 11/FA, paras. 71-72
[2] CX/FA 12/44/9 Add 1.
[3] FA 44/CRD 2, Appendix 8
[4] REP 12/FA, paras. 94-98.

13/45/7, as well as proposals for new provisions in Food Category 14.2.3 and its sub-categories contained in document CX/FA 13/45/12.[5]

5. It is noted that no Codex commodity standards are associated with food category 14.2.3 (Grape wines) and its sub-categories.

Mandate

6. The 45th CCFA endorsed the recommendation of the pWG, and agreed to establish an eWG, led by France, open to all members and observers, and working in English only, to prepare recommendations on the horizontal approach to the use of food additives with the technological function of "acidity regulators" and "emulsifier, stabilizer, thickener" in food category 14.2.3 (Grape wines) and its sub-categories, as well as recommendations for provisions and proposals for new provisions listed in food category 14.2.3 and its sub-categories in CX/FA 13/45/12 and Appendices 2 and 3 of CX/FA 13/45/7.[6]

6. The recommendations of the eWG on food category 14.2.3 (Grape wines) and its sub-categories will be considered by the pWG, chaired by the United States of America, which will meet immediately prior to the 46th Session of the CCFA.

Working document

7. This document provides recommendations established on the basis of comments submitted to the eWG. The eWG considered the information provided by its members, and made recommendations on individual food additive provisions based on a "weight of evidence" approach; that is, comments containing justifications have been given more weight than comments with no supporting justification.

eWG Recommendations on Specific Topics

8. Recommendations on specific topics originating from general comments provided by eWG members on the use of Table 3 food additives with "acidity regulator" or "emulsifier, stabilizer, thickener" function in food category 14.2.3 (Grape wines) are presented in Appendix 1 to this document.

Acidity Regulators and Emulsifiers, Stabilizers, Thickeners

9. This document provides recommendations on the draft and proposed draft provisions for GSFA Table 3 food additives for food category 14.2.3 (Grape wines) and its sub-categories, with the functions of "acidity regulator" (Appendix 2) and "emulsifier, stabilizer, thickener" (Appendix 3). These provisions were taken from CX/FA 13/45/7 (Appendices 2 and 3, respectively). Appendices 2 and 3 of this document are presented in the format of the food category listed in the Annex to Table 3. The hierarchical nature of the food category system was reflected by including the sub-categories for food category 14.2.3 (Grape wines).

10. The use of a food additive with acidity regulator, emulsifier, stabilizer or thickener function for a technical purpose other than a use as an acidity regulator, emulsifier, stabilizer or thickener, or as a processing aid has not been taken into account when proposing whether the use of the functional class of acidity regulator, emulsifier, stabilizer or thickener was technologically justified in food category 14.2.3 (Grape wines) and its sub-categories. Likewise, substances identified by the eWG as processing aids have not been considered. Those substances that meet the criteria for entry of processing aids into the database (REP 13/FA, para. 143) could be addressed by a Codex member to China for inclusion in the database on processing aids.

11. The following convention was used to prepare Appendices 2 and 3. Sub-categories not listed in the Annex to Table 3, but affected by the listing of the parent category in the Annex to Table 3 are indicated by underlining the food category number of the affected sub-category.

New additives

12. This document also includes a list of proposals for new additives or new provisions (Appendix 4) provided by New Zealand and OIV in response to CL 2012/5-FA, part B, point 10. Appendix 4 contains New Zealand's proposals listed in CX/FA 13/45/12 and OIV's detailed proposals listed in CX/FA 12/44/9 Add.2.

13. Although not requested, new proposals for the use of additives in food category 14.2.3 (Grapes wines) were submitted to the eWG by Australia, Canada, FIVS and OIV. These proposals are listed in Appendix 5 of

[5] FA 45/CRD 2 recommendation 8
[6] REP 13/FA, para. 76.

this document. These proposals were not considered by the eWG, and should be submitted in response to the Circular Letter requesting new proposals for consideration at the next CCFA. [7]

Recommendations

14. The recommendations contained in Appendices 1 to 4 are based upon a consensus approach taking into account the eWG members' comments. These recommendations are based on the "weight of evidence" approach, as explained in paragraph 11. Although the eWG was tasked with preparing recommendations using the horizontal approach to the use of food additives with the technological function of "acidity regulators" and "emulsifier, stabilizer, thickener" in food category 14.2.3 (Grape wines) and its sub-categories, the comments provided by the eWG indicated that this was not possible. Therefore, the recommendations for the food additive provisions in food category 14.2.3 and its sub-categories were made on a case-by-case basis (See Appendix 1).

This document proposes to classify the food additives listed in Appendices 2, 3 and 4 as follows:

- To adopt for use with a specified technological function, with or without specific note(s);
- To discontinue, with or without inclusion in the database on processing aids based on the request of an eWG member;
- To discuss further to achieve consensus regarding the technological justification;
- To propose for inclusion in the JECFA Priority List for evaluation (see e.g. CL 2013/12-FA); and
- To propose for inclusion of a functional class in the INS (see e.g. CL 2013/13-FA).

[7] See, for example, CL 2013/8-FA Part B point 5.

Appendix 1: eWG Recommendations on Specific Topics

1. Horizontal Approach:

The eWG members' comments on the justification for the use of a horizontal approach to the use of food additives indicated that not all of the listed food additives are technologically justified or permitted by all eWG members in their respective wine regulations. Moreover, when these food additives are permitted for such use, they are sometimes authorized with specific limitations.

Furthermore, the descriptor for food category 14.2.3 (Grape wines) refers to the definition for "grape wine" given by the International Code of Oenological Practices (GSFA (CODEX STAN 192-1995), Annex B, footnote 87). Several eWG members' comments referred to the provisions for food additives established by the OIV in its Code of Oenological Practices, and noted that a case-by-case approach was used to establish the OIV Code of Oenological Practices.

Thus, due to the lack of consensus to apply a horizontal approach to the provisions in food category 14.2.3 (Grape wines) and its sub-categories for food additives with the functional classes "acidity regulator" and "emulsifier, stabilizer, thickener", and noting that there is no Codex commodity standard corresponding to this food category 14.2.3 (Grape wines), the eWG recommends that the use of food additives with the functional classes "acidity regulator" (Appendix 2) and "emulsifier, stabilizer, thickener" (Appendix 3), and of the proposed new additives (Appendix 4) for food category 14.2.3 (Grape wines) and its sub-categories be considered on a case-by-case basis.

2. Processing Aids – Processing Aids Database

The comments from the eWG members suggest that the following substances should be considered as processing aids[8]: Calcium carbonate (INS 170(i)), Potassium carbonate (INS 501(i)), Potassium hydrogen carbonate (INS 501(ii)), Calcium tartrate DL- (INS 354), Potassium tartrate DL-, Tartaric acid DL-, Monopotassium tartrate (INS 336(i)), Dipotassium tartrate (INS 336(ii)), Calcium alginate (INS 404), Potassium alginate (INS 402), Calcium malate D,L- (INS 352(ii)), Mono- and di-glycerides of fatty acids (INS 471).

Australia and New-Zealand considered that some of these substances may act as both processing aids and food additives, and requested that they be included in the GSFA for the appropriate food additive use: Calcium carbonate (INS 170(i)), Potassium carbonate (INS 501(i)), Potassium hydrogen carbonate (INS 501(ii)), Tartaric acid DL-, Calcium tartrate DL- (INS 354), Potassium tartrate DL-, Monopotassium tartrate (INS 336(i)) and Dipotassium tartrate (INS 336ii)). However, it is noted that Tartaric acid DL and Potassium Tartrate DL do not meet the criteria for inclusion in the GSFA (see Appendix 4).

Considering the comments from the eWG members on a weight of evidence basis, it is proposed that these substances be considered as processing aids, and that they be added to the Inventory of Processing Aids that is being developed by China.

3. Numerical Maximum Use Level or GMP

In drafting this document, the eWG considered that the GSFA's Preamble establishes general principles for the use of food additives that is justified, in particular, when such use does not present an appreciable health risk to consumers and also does not mislead the consumer.

Some eWG members considered that :

- where a non-numerical ADI is specified by JECFA, meaning that the additive is safe for use in accordance with GMP, it is appropriate to list the additive in the GSFA for use at GMP; and
- the particular wine making practices are covered under the principles of GMP.

Other eWG members considered that it was necessary to establish a numerical use level so that the consumer is not misled, the identity of the product is preserved and the additive is not used to disguise the effect of the use of faulty raw materials or of undesirable practices or techniques.

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[8] *"Processing aid means any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, intentionally used in the processing of raw materials, foods or its ingredients, to fulfil a certain technological purpose during treatment or processing and which may result in the non-intentional but unavoidable presence of residues or derivatives in the final product. "Codex Procedural Manual,21st Ed. (2013) Section I : Basic Texts and Definitions, p. 23.*

Thus, the eWG recommends to set :

- a numerical maximum use level for Ascorbic acid (INS 300), Gum Arabic (INS 414), and Sodium carboxymethyl cellulose (INS 466) ; and
- a numerical maximum use level for Citric acid (INS 330), Lactic acid L-, D- and DL- (INS 270), Malic acid DL- (INS 296) and Tartaric acid L(+)- (INS 334) at 4000 mg/L expressed as Tartaric acid (Note 45); and
- a general limit for wine acidification, by associating the following note with the provisions for those additives that function as acidity regulators (Appendix 2) including Tartaric acid, L(+) (INS 334) : *"Singly or in combination : Citric acid (INS 330), Lactic acid L-, D- and DL- (INS 270), Malic acid DL- (INS 296), Tartaric acid L(+)- (INS 334). The initial acidity content is not raised by more than 54 milliequivalents per litre (i.e. 4 g/L expressed as tartaric acid)*".

4. Fumaric acid (INS 297) and Calcium sulfate (INS 516)

There appears to be no agreement on the technological justification for the use of Fumaric acid (INS 297) as an acidity regulator in food category 14.2.3 (Grape wines) and of Calcium sulfate (INS 516) as a stabilizer in food category 14.2.3.3 (Fortified grape wine, grape liquor wine, and sweet grape wine). The eWG recommends that additional information on the technological justification for the use of these additives from Codex members and internationally-recognised technical organisations such as the OIV, be provided.

5. Tartrates

Tartrates are considered as a "group" additive in the GSFA. The eWG recommends that only Tartaric acid, L(+) (INS 334), with the functional class of "acidity regulator" only, should be listed in the GSFA for food category 14.2.3 (Grape wines) and its sub-categories at the maximum use level of 4000 mg/L.

Appendix 2: Food additives with "Acidity Regulator" function

Food Category No. 14.2.3 (Grape wines)
Corresponding commodity standards: None
General recommendation for the food category as recorded in Appendix 4 of FA 45/CRD 2: no decision
Adopted provisions in the GSFA for food additives with the functional class "Acidity Regulator": None

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	INS Functional classes	Max Level (mg/kg)	Notes	Step		
ASCORBIC ACID, L-	300 Acidity regulator Antioxidant Flour treatment agent	250		4	Adopt only for use with the current INS functional class "Antioxidant" 1) at Maximum Level of 300mg/L, and 2) Add Note 36 "Residual level" and Note 242 "For use as an antioxidant".	This substance is identified by the eWG only with the current INS functional class "Acidity regulator". Regarding its various functional classes, the GSFA's existing note 242 "For use as an antioxidant" should be added to precise its technological purpose. Specifications for use conditions with a maximum level are justified - by a technological need, - by consumer protection concerns regarding the identity of wine, - by consistency with international standards (OIV).
CALCIUM CARBONATE	170(i) Acidity regulator Anticaking agent Colour Firming agent Flour treatment agent Stabilizer	3500		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
CALCIUM MALATE, D,L-	352(ii) Acidity regulator	GMP		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
CITRIC ACID	330 Acidity regulator Antioxidant Sequestrant	4000		4	Adopt only for use with the current INS functional classes: **1) "Acidity regulator"** at Maximum Level of 4000 mg/L with the Note 45 "Expressed as tartaric acid" and the **New Note** "Singly or in combination : Citric acid (INS 330), Lactic acid L-, D- and DL- (INS 270), Malic acid DL- (INS 296),	Citric acid is used and recognised by the eWG members only with the current INS functional classes "Acidity regulator" and "Sequestrant". Specifications for use conditions as Acidity Regulator with maximum levels (added acid quantity and initial acidity increase) are justified - by a technological need, - by consumer protection concerns regarding the identity of wine, - so that the treatment does not disguise the effect of the use of faulty grapes or of

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
					Tartaric acid L(+)- (INS 334). The initial acidity content is not raised by more than 54 milliequivalents per litre (i.e. 4 g/L expressed as tartaric acid)". **2) "Sequestrant"** at Maximum Level of 1000 mg/L with the Note 36 "Residual level".	undesirable oenological practices, - by consistency with international standards (OIV).
FUMARIC ACID	297 Acidity regulator	3000	109	7	Pending for further technological justification	Fumaric acid is used and recognised by some eWG members with the current INS functional class "Acidity regulator". Other members are wondering on the technical need of fumaric acid. Before proceeding with this substance, the eWG proposes to collect more information on the technological justification. The technological evaluation is considered on a priority list by OIV. Additional information on the technological justification for the use of this additive from Codex members and internationally-recognised technical organisations be provided.
LACTIC ACID, L-, D- and DL-	270 Acidity regulator	4000		4	Adopt only for use with the current INS functional class "Acidity regulator" 1) at Maximum Level of 4000 mg/L, and 2) with the Note 45 "Expressed as tartaric acid" and the **New Note** "Singly or in combination : Citric acid (INS 330), Lactic acid L-, D- and DL- (INS 270), Malic acid DL- (INS 296), Tartaric acid L(+)- (INS 334). The initial acidity content is not raised by more than 54 milliequivalents per litre (i.e. 4 g/L expressed as tartaric acid)".	Lactic acid is used and recognised by the eWG with the current INS functional class "Acidity regulator". Specifications for use conditions with maximum levels (acid added quantity and initial acidity increase) are justified - by a technological need, - by consumer protection concerns regarding the identity of wine, - so that the treatment does not disguise the effect of the use of faulty grapes or of undesirable oenological practices, - by consistency with international standards (OIV).
MALIC ACID, DL-	296 Acidity regulator	4000		4	Adopt only for use with the current INS functional class "Acidity regulator" 1) at Maximum Level of 4000 mg/L, and 2) with the Note 45 "Expressed as tartaric acid" and the **New Note** "Singly or in combination : Citric acid (INS 330), Lactic acid L-, D- and DL- (INS 270), Malic acid DL- (INS 296), Tartaric acid L(+)- (INS 334). The initial acidity content is not raised by more than 54 milliequivalents per litre (i.e. 4 g/L expressed as tartaric acid)".	Malic acid is used and recognised by the eWG with the current INS functional class "Acidity regulator". Specifications for use conditions with maximum levels (acid added quantity and initial acidity increase) are justified - by a technological need, - by consumer protection concerns regarding the identity of wine, - so that the treatment does not disguise the effect of the use of faulty grapes or of undesirable oenological practices, - by consistency with international standards (OIV).

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
POTASSIUM CARBONATE	501(i) Acidity regulator Stabilizer	5000		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
POTASSIUM HYDROGEN CARBONATE (POTASSIUM BICARBONATE)	501(ii) Acidity regulator Raising agent Stabilizer	5000		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.

Note 109: Use level reported as 25 lbs/1 000 gal x (0.45 kg/lb) x (1 gal/3.75 L) x (1 L/kg) x (10E6 mg/kg) = 3 000 mg/kg

Food Category No. 14.2.3.1 (Still grape wine)
Corresponding commodity standards: None
General recommendation for the food category as recorded in Appendix 4 of FA 45/CRD 2: No decision
Adopted provisions in the GSFA for food additives with the functional class "Acidity Regulator": None

Food Category No. 14.2.3.2 (Sparkling and semi-sparkling grape wines)
Corresponding commodity standards: None
General recommendation for the food category as recorded in Appendix 4 of FA 45/CRD 2: No decision
Adopted provisions in the GSFA for food additives with the functional class "Acidity Regulator": None

Food Category No. 14.2.3.3 (Fortified grape wine, grape liquor wine, and sweet grape wine)
Corresponding commodity standards: None
General recommendation for the food category as recorded in Appendix 4 of FA 45/CRD 2: No decision
Adopted provisions in the GSFA for food additives with the functional class "Acidity Regulator": None

Appendix 3: Food additives with "Emulsifier, Stabilizer, Thickener" function

Food Category No. 14.2.3 (Grape wines)
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision
Adopted provisions in the GSFA for food additives with the functional classes "Emulsifier, Stabilizer, Thickener": None

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
CALCIUM CARBONATE	170(i) Acidity regulator Anticaking agent Colour Firming agent Flour treatment agent Stabilizer	3500		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member (see Calcium carbonate in Appendix 2).	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
CAROB BEAN GUM	410 Emulsifier Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by the eWG members.
GELLAN GUM	418 Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by the eWG members.
GUAR GUM	412 Emulsifier Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by the eWG members.
GUM ARABIC (ACACIA GUM)	414 Bulking agent Carrier Emulsifier Glazing agent Stabilizer Thickener	GMP 300		4 7	Discontinue work on provision at GMP. Adopt at maximum level of 300 mg/L for use only with the current INS functional classes "Emulsifier, Stabilizer, Thickener"	Gum Arabic is used and recognised by the eWG only with the current INS functional classes "Emulsifier, Stabilizer, Thickener". Specifications for use conditions with a maximum use level are justified - by a technological need, - by consumer protection concerns regarding the identity of wine, - so that the treatment does not disguise the effect of the use of faulty grapes or of undesirable oenological practices, - by consistency with international standards (OIV).

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
KARAYA GUM	416 Emulsifier Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by the eWG members.
KONJAC FLOUR	425 Carrier Emulsifier Gelling agent Glazing agent Humectant Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by the eWG members.
MONO- AND DI-GLYCERIDES OF FATTY ACIDS	471 Antifoaming agent Emulsifier Stabilizer	18		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
PECTINS	440 Emulsifier Gelling agent Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by eWG members.
POTASSIUM CARBONATE	501(i) Acidity regulator Stabilizer	5000		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member (see Potassium carbonate Appendix 2).	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
POTASSIUM HYDROGEN CARBONATE (POTASSIUM BICARBONATE)	501(ii) Acidity regulator Raising agent Stabilizer	5000		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member (see Potassium hydrogen carbonate Appendix 2).	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
TARA GUM	417 Gelling agent Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by eWG members.

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
TRAGACANTH GUM	413 Emulsifier Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by eWG members.
XANTHAN GUM	415 Emulsifier Foaming agent Stabilizer Thickener	GMP		7	Discontinue	This substance is neither used nor recognised by eWG members.

Food Category No. 14.2.3.1 (Still grape wine)
Corresponding commodity standards: none
General recommendation for the food category as recorded in FA 45/CRD 2: No decision
Adopted provisions in the GSFA for food additives with the functional class "Emulsifier, Stabilizer, Thickener": None

Food Category No. 14.2.3.2 (Sparkling and semi-sparkling grape wines)
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision
Adopted provisions in the GSFA for food additives with the functional class "Emulsifier, Stabilizer, Thickener": None

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
CALCIUM ALGINATE	404 Antifoaming agent Bulking agent Carrier Foaming agent Gelling agent Glazing agent Humectant Sequestrant Stabilizer	GMP		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
	Thickener					
POTASSIUM ALGINATE	402 Bulking agent Carrier Emulsifier Foaming agent Gelling agent Glazing agent Humectant Sequestrant Stabilizer Thickener	GMP		7	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.

Food Category <u>No. 14.2.3.3 (Fortified grape wine, grape liquor wine, and sweet grape wine)</u>
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision
Adopted provisions in the GSFA for food additives with the functional class "Emulsifier, Stabilizer, Thickener": None

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
CALCIUM SULFATE	516 Firming agent Flour treatment agent Sequestrant Stabilizer	2000		7	Pending for further technological justification	This substance is used and recognised by some eWG members with the functional class "acidity regulator". The functional class "acidity regulator" is not listed in the INS for calcium sulphate (INS 516). Before proceeding with this substance, the eWG proposes to collect more information on the technological justification. The technological evaluation is considered on a priority list by OIV. Additional information on the technological justification for the use of this additive from Codex members and internationally-recognised technical organisations be provided.

Appendix 4: Proposed ADDITIVES in response to CL 2012/5-FA, PART B, POINT 10 as given in CX/FA 13/45/12 (New-Zealand) and CX/FA 12/44/9 Add.2 (International Organisation of vine and wine-OIV)

Food Category No. 14.2.3 (Grape wines)
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/46 INF/01, Table 2			Proposed Max Level (mg/kg)	eWG Proposals	Justification of eWG Proposals
Additive	INS Functional classes	Max Level (mg/kg)	Notes	Step			
Carbon dioxide	290 Carbonating agent (1) Packaging gas Preservative Propellant	GMP	60	7		Adopt for use only with the current INS functional classes "Carbonating Agent" and "Packaging gas" 1) at GMP, and 2) Delete Note 60, and 3) Add Note 59 "Use as packaging gas" and Note 69 "Use as carbonating agent".	The GSFA food category system describes the food category 14.2.3.1 (Still grape wine) as the "Grape wine (white, red, rosé, or blush, dry or sweet) that may contain up to a maximum 0.4g/100 ml (4000 mg/kg) carbon dioxide at 20°C." (CODEX STAN 192-1995 Annex B Part II). The current note 60 that applies only to food category 14.2.3 (Grape wines) and its subcategories, should be deleted. This note is erroneous and unnecessary. A CO2 maximal content limit is already set in the descriptor of food category 14.2.3.1 (Still grape wine).
Sodium carboxy methyl cellulose (Cellulose gum)	466 Bulking agent Emulsifier(1) Firming agent Gelling agent Glazing agent Humectant Stabilizer (1) Thickener (1)				100	Propose for entry in the GSFA at Step 3 with the current INS functional classes "Emulsifier, Stabilizer, Thickener" at Maximum Level of 100 mg/L	This substance is used and recognised by the eWG only with the current INS functional classes "Emulsifier, Stabilizer, Thickener". The maximum level of 100 mg/L is justified - by a technological need, - by consumer protection concerns regarding the identity of wine, - so that the treatment does not disguise the effect of the use of faulty grapes or of undesirable oenological practices, - by consistency with international standards (OIV).
Metatartaric acid (a)	353 Acidity regulator *Emulsifier(2)* *Stabilizer (2)* *Thickener(2)*				GMP	1) Include on the JECFA Priority List for evaluation for food additive functional classes "Emulsifier, Stabilizer, Thickener" on the request of a Codex member, 2) Propose to the eWG on the INS for inclusion with functional classes "Emulsifier, Stabilizer, Thickener" on the request of a Codex member.	This substance is used and recognised by most of eWG members only with the functional classes "Emulsifier, Stabilizer, Thickener". These functional classes have to be added in the INS for metatartaric acid (INS 353). Metatartaric acid needs to be allocated a JECFA ADI.
Tannins (Tannic acid) (b)	181 Colour Emulsifier Stabilizer (1) Thickener				GMP	Include on the JECFA Priority list for evaluation for current INS food additive functional classes "Emulsifier, Stabilizer, Thickener" on the request of a Codex member.	Tannins (oenological tannins and tannic acid) are used and recognised by eWG members as a processing aid (filtering aid, clarifying agent). Tannins are used and recognised by eWG members with the current INS functional classes "Emulsifier, Stabilizer, Thickener". Tannins need to be allocated a full JECFA ADI.

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/46 INF/01, Table 2			Proposed Max Level (mg/kg)	eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**			
							Additional information on the technological justification for the use of these additives from Codex members and internationally-recognised technical organisations be provided.
Yeast manno proteins (a)	455 Stabilizer				400	Include on the JECFA Priority List for evaluation for current INS food additive functional class "Stabilizer" on the request of a Codex member.	This substance is used and recognised by eWG members with the current INS functional class "Stabilizer". Yeast mannoproteins need to be allocated a JECFA ADI.
TARTRATES Tartaric acid, L(+)	334 Acidity regulator (1) Antioxydant Flavour enhancer Sequestrant				4000	Adopt Tartrates with Tartaric acid (L+) only in the food category 14.2.3, for use only with the current INS functional class "Acidity regulator" 1) at Maximum Level of 4000 mg/L, and 2) with the current Note 45 "Expressed as tartaric acid", Note 128 "INS 334 (tartaric acid) only", Note 230 "As an acidity regulator only", and 3) Add the **New Note** "Singly or in combination : Citric acid (INS 330), Lactic acid L-, D- and DL- (INS 270), Malic acid DL- (INS 296), Tartaric acid L(+)- (INS 334). The initial acidity content is not raised by more than 54 milliequivalents per litre (i.e. 4 g/L expressed as tartaric acid)"	As a result of the discontinuation of the provisions for "Tartrates" in the sub-categories 14.2.3.1, 14.2.3.2, and 14.2.3.3 (see below), it is appropriate to propose adoption of the provision in the category 14.2.3. Within Tartrates, tartaric acid only is used and recognised by the eWG with the current INS functional class "Acidity regulator" only. Specifications for use conditions with maximum levels (added acid quantity and initial acidity increase) are justified by a JECFA ADI with a numerical maximum use level for Tartrates, and - by a technological need, - by consumer protection concerns regarding the identity of wine, - so that the treatment does not disguise the effect of the use of faulty grapes or of undesirable oenological practices, - by consistency with international standards (OIV).
Tartaric acid, DL	— — *Emulsifier(2)* *Stabilizer (2)* *Thickener(2)*					Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
Calcium tartrate, DL (a)	354 Acidity regulator *Emulsifier(2)* *Stabilizer (2)* *Thickener(2)*				200	Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
Dipotassium tartrate (Potassium (L+) Tartrate)	336(ii) Acidity regulator(1) Sequestrant Stabilizer					Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/46 INF/01, Table 2			Proposed Max Level (mg/kg)	eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**			
Potassium tartrate, DL	— — *Emulsifier(2)* *Stabilizer (2)* *Thickener(2)*					Discontinue This substance could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.

Note 45 As tartaric acid
Note 60 If used as a carbonating agent, the CO2 in the finished wine shall not exceed 39.2 mg/kg.

(a) Additive does not meet the criteria for inclusion in GSFA (Acceptable Daily Intake ADI assigned or determined on the basis of other criteria, to be safe by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and an International Numbering System (INS) designation by Codex (Section 1.1 of the Preamble to the GSFA); established specifications).
(b) Tannins: JECFA established specifications and functional uses for tannins as a clarifying agent (processing aid) and a flavouring agent/flavour adjunct (flavourings). http://www.fao.org/food/food-safety-quality/scientific-advice/jecfa/jecfa-additives/en/. Neither processing aids nor flavours are included in the GSFA. Provisions for tannins were consequently removed from the GSFA (ALINORM 04/27/12, Appendix VIII).

(1) Functional classes as expressed in proposals made by New Zealand or OIV (underlined)
(2) Functional classes as expressed in proposals made by New Zealand or OIV but not listed in CAC/GL 36-1989 (*in italics and underlined*)

Food Category No. 14.2.3.1 (Still grape wine)
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
TARTRATES:		9000	45	7	Discontinue	Tartrates shall be used under the conditions that are set out with the food category 14.2.3 Grape wines.
Tartaric acid, L(+)	334 Acidity regulator Antioxidant Flavour enhancer Sequestrant				Discontinue	Tartrates -tartaric acid, L(+)- shall be used under the conditions that are set out with the food category 14.2.3 Grape wines. (See Tartrates for food category 14.2.3, above)

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
Monosodium tartrate	335(i) Acidity regulator Sequestrant Stabilizer				Discontinue	This substance is neither used nor recognised by the eWG members.
Sodium(L+)-tartrate	335(ii) Acidity regulator Sequestrant Stabilizer				Discontinue	This substance is neither used nor recognised by the eWG members.
Mono potassium tartrate (Potassium bitartrate, Potassium hydrogen tartrate, cream of tartar)	336(i) Acidity regulator Sequestrant Stabilizer				Discontinue Processing aid that could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
Dipotassium tartrate (Potassium (L+) tartrate, Neutral potassium tartrate)	336(ii) Acidity regulator Sequestrant Stabilizer				Discontinue Processing aid that could be included in the database on processing aids on the request of a Codex member.	This substance is identified by the eWG as a processing aid that meets the criteria for entry into the database of processing aids.
Potassium sodium (L+)-tartrate	337 Acidity regulator Sequestrant Stabilizer				Discontinue Processing aid that could be included in the database on processing aids on the request of a Codex member.	This substance is used and recognised by some eWG members as a processing aid that meets the criteria for entry into the database of processing aids

Note 45 as tartaric acid.

Food Category No. 14.2.3.2 (Sparkling and semi-sparkling grape wines)
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
TARTRATES:	334	4000	45	4	Discontinue	Tartrates shall be used under the conditions that are set out with the food category 14.2.3 Grape wines.
Tartaric acid, L(+)	Acidity regulator Antioxidant Flavour enhancer Sequestrant				Discontinue	Tartaric acid, L(+)- shall be used under the conditions that are set out with the food category 14.2.3 Grape wines. (See Tartrates for food category 14.2.3, above)
– – – – – – – –	– – – – – –	– – – –	– – –	– – –	– – – – – – – – (See food category 14.2.3.1, above)	

Note 45 as tartaric acid.

Food Category No. 14.2.3.3 (Fortified grape wine, grape liquor wine, and sweet grape wine)
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/46 INF/01, Table 2			eWG Proposals	Justification of eWG Proposals
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
TARTRATES:		4000	45	4	Discontinue	Tartrates shall be used under the conditions that are set out with the food category 14.2.3 Grape wines.
Tartaric acid, L(+)	334 Acidity regulator Antioxidant Flavour enhancer Sequestrant				Discontinue	Tartaric acid, L(+)- shall be used under the conditions that are set out with the food category 14.2.3 Grape wines. (See Tartrates for food category 14.2.3, above)
– – – – – – – –	– – – – – –	– – – –	– – –	– – –	– – – – – – – – (See food category 14.2.3.1, above)	

Note 45 as tartaric acid.

Appendix 5: Proposed new substances with summarized comments

Food Category No. 14.2.3 (Grape wines)
Corresponding commodity standards: None
General recommendation for the food category as recorded in FA 45/CRD 2: No decision

Comments of the eWG: although not requested, new proposals for use of additives in food category 14.2.3 (Grapes wines) were submitted to the eWG by Australia, Canada, FIVS and OIV. Proposals for new additive provisions and/or revisions of food additive provisions of the GSFA should be submitted in response to a future Circular Letter for consideration at the next CCFA.

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/45 INF/01, Table 2			Proposed Max Level (mg/kg)	Summarized comments on proposed substances
Additive	INS Functional classes	Max Level (mg/kg)	Notes	Step		
Erythorbic acid	315 Antioxidant (1)	250		4		**Argentina:** allows the use of Erythorbic acid as an antioxidant in accordance with (INV Resol. Nº 1673/72). **Australia**: permits the use of Erythorbic acid – Australia New Zealand Food Standards Code - Standard 1.3.1 Food Additives – Section 14.2.2 (Wine, sparkling wine and fortified wine) permitted at GMP. To prevent oxidation of colour and flavour components of juice and wine. Chemically it acts in a similar manner to ascorbic acid and is traditionally used as an ascorbic acid replacement. Also approvals for use in the USA and EU. JECFA evaluation 1990. ADI not specified. No provisions for this additive in OIV. **FIVS**: should be included in the GSFA **NZ:** New Zealand's views are well represented by the comments submitted by Australia
Sodium ascorbate	301 Antioxidant (1)	200		7		**Argentina:** Not approved as an oenological practice in Argentina. **Australia** permits the use of Sodium ascorbate – Australia New Zealand Food Standards Code - Standard 1.3.1 *Food Additives* – Section 14.2.2 (Wine, sparkling wine and fortified wine) permitted at **GMP**. To prevent oxidation of colour and flavour components of juice and wine. Evaluated by JECFA 1981 – ADI not specified – Group ADI for ascorbic acid and its sodium, potassium and calcium salts. Also permitted in the USA and New Zealand. No provisions for this additive in OIV. **NZ:** New Zealand's views are well represented by the comments submitted by Australia
Calcium ascorbate	302 Antioxidant (1)	GMP		7		**Argentina:** Not approved as an oenological practice in Argentina **Australia** permits the use of Calcium ascorbate – Australia New Zealand Food Standards Code - Standard 1.3.1 *Food Additives* – Section 14.2.2 (Wine, sparkling wine and fortified wine) permitted at **GMP**. To prevent oxidation of colour and flavour components of juice and wine. Evaluated by JECFA 1981 – ADI not specified – Group ADI for ascorbic acid and its sodium, potassium and calcium salts. Also permitted in the USA and New Zealand. No provisions for this additive in OIV. **NZ:** New Zealand's views are well represented by the comments submitted by Australia
Sodium erythorbate	316 Antioxidant (1)	GMP		7		**Argentina:** Not approved as an oenological practice in Argentina **Australia** permits the use of Sodium erythorbate – Australia New Zealand Food Standards Code - Standard 1.3.1 *Food Additives* – Section 14.2.2 (Wine, sparkling wine and fortified wine) permitted at **GMP**. JECFA evaluation 1990. ADI not specified. Also approved for use in the USA, EU and New Zealand. No provisions for this additive in OIV. **Malaysia**: is permitted in Malaysia for use in wine as antioxidant with maximum permitted level 100mg/l **NZ:** New Zealand's views are well represented by the comments submitted by Australia
Calcium phosphates	341 Acidity Regulator					**Argentina:** Not approved as an oenological practice in Argentina **Australia** permits the use of Calcium phosphates – Australia New Zealand Food Standards Code - Standard 1.3.1 Food Additives – Section 14.2.2 (Wine, sparkling wine and fortified wine) permitted at GMP. Also approved for use in the USA and New Zealand. JECFA evaluation 1982. Maximum tolerable daily intakes for phosphates, diphosphates and

Additives as identified in document CAC/GL 36-1989		Provisions in the step elaboration procedure as given in FA/45 INF/01, Table 2			Proposed Max Level (mg/kg)	Summarized comments on proposed substances
Additive	**INS Functional classes**	**Max Level (mg/kg)**	**Notes**	**Step**		
	Emulsifier Humectant Raising agent Sequestrant Stabilizer Thickener					polyphosphates. No provisions for this additive in OIV. **NZ:** New Zealand's views are well represented by the comments submitted by Australia
Ammonium phosphates particularly Diammonium phosphate (DAP)	342 Acidity Regulator (1) Flour treatment agent					**Argentina:** Not approved as an oenological practice in Argentina **Australia** permits the use of Ammonia phosphates – Australia New Zealand Food Standards Code - Standard 1.3.1 *Food Additives* – Section 14.2.2 (Wine, sparkling wine and fortified wine) permitted at **GMP**. DAP is used as a yeast fermentation aid. Evaluated by JECFA 1982. Group MTDI for phosphorus from all sources expressed as P was developed. OIV permits the use of Diammonium phosphate in sparkling wines to a maximum of 0.3g/l for secondary fermentation. **NZ:** New Zealand's views are well represented by the comments submitted by Australia
Agar	406 Bulking agent Carrier Emulsifier (1) Gelling agent Glazing agent Humectant Stabiliser (1) Thickener (1)					**Argentina:** Not approved as an oenological practice in Argentina **Australia** permits the use of Agar as a processing aid. Approved for use in the USA and Europe. JECFA evaluation 1973. ADI not limited. The Agreement between Australia and the EC on Trade in Wine allows use. http://www.austlii.edu.au/au/other/dfat/treaties/2010/19.html **NZ:** New Zealand's views are well represented by the comments submitted by Australia
Potassium sulfate	515 Acidity Regulator (1)					**Argentina:** Not approved as an oenological practice in Argentina **FIVS:** should be included in the GSFA
Potassium citrate	332 Acidity regulator (1) Sequestrant Stabilizer				GMP	**Argentina:** Not approved as an oenological practice in Argentina **Canada**: In accordance with GMP. There is support within the Canadian wine industry to include a provision in the GSFA for the use of potassium citrate in wine, at a level of use consistent with GMP.
Malic acid, L(-) (a)	– Acidity regulator (1)					**OIV**: would like to add the isomer Malic acid, L (-) CAS Registry Number 97-67-6.

(a) Additive does not meet the criteria for inclusion in GSFA (Acceptable Daily Intake ADI assigned or determined on the basis of other criteria, to be safe by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and an International Numbering System (INS) designation by Codex (Section 1.1 of the Preamble to the GSFA); established specifications).

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(1) Functional classes as expressed in additional proposals made by Australia, Canada, FIVS or OIV (underlined)