

Brussels, XXX SANTE/10144/2021 ANNEX CIS (POOL/E2/2021/10144/10144-EN ANNEX CIS.docx) [...](2021) XXX draft

ANNEXES 1 to 2

ANNEXES

to the

COMMISSION REGULATION (EU) .../...

amending Annex II to Regulation (EC) No 1333/2008 of the European Parliament and of the Council and the Annex to Commission Regulation (EU) No 231/2012 as regards steviol glycosides (E 960) and rebaudioside M produced via enzyme modification of steviol glycosides from Stevia as a sweetener

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ANNEX I

Annex II to Regulation (EC) No 1333/2008 is amended as follows:

- (a) Part B2 is amended as follows:
 - (1) The entry for E 960 (Steviol glycosides) is replaced by the following:

'E 960a	Steviol glycosides from Stevia'
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(2) The following entry for E 960c is inserted after the entry for E 960a:

'E 960c	Enzymatically produced steviol glycosides'

- (b) InPart C, Table 5: Other additives that may be regulated combined, the following point for E 960a E 960c: Steviol glycosides is inserted after the point (u) for E 626–635: Ribonucleotides:
 - '(v) E 960a 960c: Steviol glycosides

E-number	Name
E 960a	Steviol glycosides from Stevia
Е 960с	Enzymatically produced steviol glycosides ,

- (c) Part E is amended as follows:
 - (1) Category 01.4 (Flavoured fermented milk products including heat-treated products) is amended as follows:

the entry for E 960 (Steviol glycosides) is replaced by the following:

	'E 960a – 960c	Steviol glycosides	100	` /	only energy-reduced products or with no added sugar'
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(2) Category 03 (Edible ices), is amended as follows:

the entry for E 960 (Steviol glycosides) is replaced by the following:

'E 960a Steviol glycosides 200	(60)	only energy-reduced products or with no added sugar'
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- (3) Category 04.2.2 (Fruit and vegetables in vinegar, oil, or brine) is amended as follows:
 - (i) the entry for E 960 (Steviol glycosides) is replaced by the following:

'E 960a - 960c Steviol glycosides	100 (1) (60	only sweet-sour preserves of fruit and vegetables'
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(4)	_	ory 04.2.4 led as follo	.1 (Fruit and vegetable p	repara	tions	excluding compote) is
	the en	try for E 90	60 (Steviol glycosides) is rep	olaced	by the	following:
		'E 960a - 960c	Steviol glycosides	200	(1) (60)	only energy-reduced'
(5)			5.1 (Extra jam and extra amended as follows:	a jell	y as	defined by Directive
	the en	try for E 90	60 (Steviol glycosides) is rep	olaced	by the	following:
		'E 960a - 960c	Steviol glycosides	200	(1) (60)	only energy-reduced jams jellies and marmalades'
(6)	_	•	2 (Jam, jellies and marma rective 2001/113/EC) is an			
	the en	try for E 90	60 (Steviol glycosides) is rep	olaced	by the	following:
		'E 960a – 960c	Steviol glycosides	200	(1) (60)	only energy-reduced jams jellies and marmalades'
(7)	Catego		3 (Other similar fruit or	vegeta	able sp	oreads) is amended as
	the en	try for E 90	60 (Steviol glycosides) is rep	olaced	by the	following:
		'E 960a – 960c	Steviol glycosides	200	(1) (60)	only energy-reduced fruit or vegetable spreads and dried-fruit-based sandwich spreads, energy-reduced or with no added sugar'
(8)	_	•	(Cocoa and Chocolate pmended as follows:	oroduct	ts as	covered by Directive
	the en	try for E 90	60 (Steviol glycosides) is rep	olaced	by the	following:
		'E 960a - 960c	Steviol glycosides	270	(1) (60)	only energy-reduced or with no added sugars'
(9)	_	ory 05.2 (onded as fo	Other confectionery includ	ing br	eath fr	eshening microsweets)
	the en	tries for E	960 (Steviol glycosides) are	replac	ed by t	he following:
		'E 960a – 960c	Steviol glycosides	270	(1) (60)	only cocoa or dried fruit based, energy reduced or with no added sugar

Steviol glycosides

(1) (60)

330

only cocoa, milk, dried fruit or fat based sandwich

E 960a - 960c

				spreads, energy-reduced or with no added sugar
E 960a - 960c	Steviol glycosides	350	(1) (60)	only confectionery with no added sugars
				only energy-reduced hard confectionery (candies and lollies)
				only energy-reduced soft confectionery (chewy candies, fruit gums and foam sugar products/marshmallows)
				only energy-reduced liquorice
				only energy-reduced nougat
				only energy-reduced marzipan
E 960a - 960c	Steviol glycosides	2 00	(1) (60)	only breath-freshening micro-sweets, energy- reduced or with no added sugars
E 960a - 960c	Steviol glycosides	670	(1) (60)	only strongly flavoured freshening throat pastilles, energy-reduced or with no added sugars'

(10) Category 05.3 (Chewing gum) is amended as follows:

the entry for E 960 (Steviol glycosides) is replaced by the following:

'E 960a Steviol glycosides 330 (1) only with no added st
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(11) Category 05.4 (Decorations, coatings and fillings, except fruit-based fillings covered by category 4.2.4) is amended as follows:

the entries for E 960 (Steviol glycosides) are replaced by the following:

'E 960a - 960c	Steviol glycosides	330	(1) (60)	only confectionary with no added sugar
E 960a - 960c	Steviol glycosides	270	(1) (60)	only cocoa or dried fruit based, energy reduced or with no added sugar'

(12) Category 06.3 (Cereals and cereal products) is amended as follows:

the entry for E 960 (Steviol glycosides) is replaced by the following:

	'E 96 – 960		Steviol glycosides	330	(1) (60)	only breakfast cereals with a fibre content of more than 15 %, and containing at least 20 % bran, energy reduced or with no added sugar'
(13)	Category 07.	2 (F	ine bakery wares) is amen	ded as	follow	s:
	the entry for	E 96	60 (Steviol glycosides) is rep	olaced	by the	following:
	'E 96 - 960		Steviol glycosides	330	(1) (60)	only essoblaten — wafer paper'
(14)		•	Processed fish and fisher mended as follows:	y prod	lucts in	ncluding molluses and
	the entry for	E 96	60 (Steviol glycosides) is rep	olaced	by the	following:
	'E 96 – 960		Steviol glycosides	200	(1) (60)	only sweet-sour preserves and semi preserves of fish and marinades of fish, crustaceans and molluscs'
(15)			(Table-top sweeteners in li 60 (Steviol glycosides) is rep	-		
	'E 960	0a	Steviol glycosides	qua ntu m satis	(1) (60)'	
(16)	Category 11.	4.2 ((Table-top sweeteners in p	owder	form)	is amended as follows:
()			60 (Steviol glycosides) is rep			
	E 96 - 960		Steviol glycosides	qua ntu m satis	(1) (60)'	
(17)	Category 11.	4.3	(Table-top sweeteners in ta	ablets)	is ame	nded as follows:
	the entry for	E 96	60 (Steviol glycosides) is rep	placed	by the	following:
	'E 96 – 960		Steviol glycosides	qua ntu m satis	(1) (60)'	

(18) Category 12.4 (Mustard) is amended as follows: the entry for E 960 (Steviol glycosides) is replaced by the following:

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		'E 960a - 960c	Stev	iol glycosides	1	20	(1) (60)'			
(19)	Categ	ory 12.5 (Soups	and broths) is a	mended	as fo	ollows	:		
	the en	try for E	960 (St	eviol glycosides)	is repla	iced 1	by the	follow	ing:	
		'E 960a – 960c	Stevi	iol glycosides	4	10	(1) (60)	only soups		y-reduced
(20)	Categ	ory 12.6 (Sauces	s) is amended as	follows	s:				
	the en	tries for E	E 960 (S	Steviol glycoside	s) are rep	place	ed by t	he fol	lowing:	
		'E 960a – 960c	Stev	iol glycosides	1.	20	(1) (60)	excep (ferm	ented an	
		E 960a - 960c	Stev	iol glycosides	1	75	(1) (60)	`	soy-bean ented an ented)'	
(21)	_	21/EC (ex	kcludin	y foods for spec	m food	cate	gory 1	3.1.5)) is ameno	
	the en	try for E	けんい しろた	evial alveasides)	i is renia					
	the en	try for E	1	eviol glycosides)	<u> </u>			Tonow	ing.	
	the en	'E 960a - 960c	1	iol glycosides	<u> </u>	330	(1) (60)'	Tonow	ing.	
(22)	Categories daily is ame	'E 960a - 960c ory 13.3 (food intak ended as f	Stevi Dietar te or ar	iol glycosides y foods for wei i individual mea	ght cont	trol c	(1) (60)' diets in	ntende t of th	d to replace	
(22)	Categories daily is ame	'E 960a - 960c ory 13.3 (food intak ended as f	Stevi Dietar te or ar	iol glycosides y foods for wei	ght cont	trol c	(1) (60)' diets in	ntende t of th	d to replace	
(22)	Categories daily is ame	'E 960a - 960c ory 13.3 (food intak ended as f	Stevi Dietar te or ar collows 960 (St	iol glycosides y foods for wei i individual mea	aght control (the who) is replace	trol c	(1) (60)' diets in	ntende t of th	d to replace	
	Categories ame	'E 960a - 960c ory 13.3 (food intakended as food intakended as food intakended as food in the food i	Dietar ce or ar collows 960 (St	y foods for wei individual mea : eviol glycosides)	ght control (the whole) is replaced to the defined	trol cyhole aced l	(1) (60)' diets ir or par by the (1) (60)'	ntende t of th follow	d to replace total daily ring:	y diet)
(22)	Categories ame	'E 960a - 960c ory 13.3 (food intakended as food intakended as food intakended as food in the food i	Dietar ce or ar collows 960 (St Stevi	y foods for wein individual meat: eviol glycosides) iol glycosides	ght control (the whole) is replaced to the second of the s	trol or hole aced legal by ended	(1) (60)' diets ir or par by the (1) (60)'	follow iive 2	d to replace total daily ring:	y diet)
. ,	Categories ame	'E 960a - 960c ory 13.3 (food intakended as food i	Dietar ce or ar collows 960 (St Stevi	y foods for wein individual meating: eviol glycosides) iol glycosides ait nectars as a similar products	aght control (the whole) is replaced and defined as is ame osides) is	trol or hole aced legal by ended	(1) (60)' diets ir or par by the (1) (60)'	follow iive 2	d to replace total daily ring:	gy-reduce
. ,	Categories among the en	'E 960a – 960c ory 13.3 (food intakended as fatry for E 960a – 960c ory 14.1. able necta the entry 'E ory 14.1.4	Dietar collows 960 (St Stevi	y foods for wein individual means in individual means in individual means in it nectars as similar products of the steviol glycosides. Steviol glycosides oured drinks) is	ght contact of the wind state of the wind and the wind state of th	trol or hole aced lead as	(1) (60)' diets ir or par by the (1) (60)' Direct d as fo laced by the	follow ive 2 llows: by the (1) (60)	d to replace total daily ring: 001/112/E0 following: only ener with no add	gy-reduce
(23)	Categories among the en	'E 960a – 960c ory 13.3 (food intakended as fatry for E 960a – 960c ory 14.1. able necta the entry 'E ory 14.1.4	Dietar collows 960 (St Stevi	y foods for wein individual meating individual meating in glycosides) iol glycosides ait nectars as similar products 60 (Steviol glycosides)	ght contact of the wind state of the wind and the wind state of th	trol or hole aced lead as	(1) (60)' diets ir or par by the (1) (60)' Direct d as fo laced by the	follow ive 2 llows: by the (1) (60)	d to replace total daily ring: 001/112/E0 following: only ener with no add	gy diet)

(25) Category 14.1.5.2 (Other) is amended as follows: the entries for E 960 (Steviol glycosides) are replaced by the following:

'E 960a – 960c	Steviol glycosides	30	(1) (60) (93)	only coffee, tea and herbal infusion beverages, energy-reduced or with no added sugars
E 960a - 960c	Steviol glycosides	30	(1) (60) (93)	only flavoured instant coffee and instant cappuccino products, energy-reduced or with no added sugars
E 960a - 960c	Steviol glycosides	20	(1) (60) (93)	only malt-based and chocolate/cappuccino flavoured drinks, energy- reduced or with no added sugars'

(26) Category 14.2.1 (Beer and malt beverages) is amended as follows: the entry for E 960 (Steviol glycosides) is replaced by the following:

	'E 960a – 960c	Steviol glycosides	70	(1) (60)	only alcohol-free beer or with an alcohol content not exceeding 1,2 % vol.; 'Bière de table/Tafelbier/Table beer' (original wort content less than 6 %) except for 'Obergäriges Einfachbier'; beers with a minimum acidity of 30 milliequivalents expressed as NaOH; Brown beers of the 'oud bruin' type'
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(27) Category 14.2.8 (Other alcoholic drinks including mixtures of alcoholic drinks with non-alcoholic drinks and spirits with less than 15 % of alcohol) is amended as follows:

the entry for E 960 (Steviol glycosides) is replaced by the following:

		Steviol glycosides	150	(1)(
	– 960c			60)'	

(28) Category 15.1 (Potato-, cereal-, flour- or starch-based snacks) is amended as follows:

the entry for E 960 (Steviol glycosides) is replaced by the following:

'E 960a - 960c	Steviol glycosides	20	(1) (60)'	

(29) Category 15.2 (Processed nuts) is amended as follows: the entry for E 960 (Steviol glycosides) is replaced by the following:

'E 960a Steviol glycosides 20 (1) (60)'			-	(1) (60)'	
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(30) Category 16 (Desserts excluding products covered in categories 1, 3 and 4) is amended as follows:

the entry for E 960 (Steviol glycosides) is replaced by the following:

'E 960a Steviol glycosides – 960c		()	only energy-reduced or with no added sugar'
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(31) Category 17.1 (Food supplements supplied in a solid form, excluding food supplements for infants and young children) is amended as follows:

the entries for E 960 (Steviol glycosides) are replaced by the following:

	'E 960a - 960c	Steviol glycosides	670	(1) (60)	
	E 960a - 960c	Steviol glycosides	180 0	(1) (60)	only food supplements in chewable form'

(32) Category 17.2 (Food supplements supplied in a liquid form, excluding food supplements for infants and young children) is amended as follows:

the entries for E 960 (Steviol glycosides) are replaced by the following:

'E 960a - 960c	Steviol glycosides	200	(1) (60)	
E 960a - 960c	Steviol glycosides	180 0	(1) (60)	only food supplements in syrup form'

ANNEX II

The Annex to Regulation (EU) No 231/2012 is amended as follows:

- (1) In the entry for E 960 Steviol glycosides, the heading is replaced by the following:
 - 'E 960a STEVIOL GLYCOSIDES FROM STEVIA'
- (2) The following new entry is inserted after the current entry for food additive E 960:
 - 'E 960c(i) REBAUDIOSIDE M PRODUCED VIA ENZYME MODIFICATION OF STEVIOL GLYCOSIDES FROM STEVIA

Synonyms					
Definition	Rebaudioside M is a steviol glycoside composed predominantly of rebaudioside M with minor amounts of other steviol glycosides such as rebaudioside A, rebaudioside B, rebaudioside D, rebaudioside I, and stevioside.				
	Rebaudioside M is obtained via enzymatic bioconversion of purified steviol glycoside leaf extracts (95% steviol glycosides) using UDP-glucosyltransferase and sucrose synthase enzymes produced by the genetically modified yeasts <i>K. phaffi</i> (formerly known as <i>Pichia pastoris</i>) UGT-a and <i>K. phaffi</i> UGT-b that facilitate the transfer of glucose from sucrose and UDP-glucose to steviol glycosides via glycosidic bonds.				
	After removal of the enzymes by solid-liquid separation and heat treatment, the purification involves concentration of the rebaudioside M by resin adsorption, followed by recrystallisation of rebaudioside M resulting in a final product containing not less than 95 % of rebaudioside M. Viable cells of the yeasts K. phaffii UGT-a and K. phaffii UGT-b or their DNA shall not be detected in the food additive.				
Chemical name	Rebaudioside M: 13-[(2-O-β-D-glucopyranosyl-3-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]kaur-16-en-18-oic acid, 2-O-β-D-glucopyranosyl-3-O-β-D-glucopyranosyl-β-D-glucopyranosyl ester 13-[(O-b-D-Glucopyranosyl-(1-2)-O-[b-D-glucosylpyranosyl-(1-3)]-b-Dglucosylpyranosyl)oxy]kaur-16-en-18-oic acid (4-)-O-b-D-glucosylpyranosyl-(1-2)-O-[b-D-glucosylpyranosyl-(1-3)]-b-Dglycosylpyranosyl ester				
Molecular	Trivial name	Formula	Conversion factor		
formula	Rebaudioside M	C ₅₆ H ₉₀ O ₃₃	0,25		
Molecular	Trivial name	CAS Number	Molecular weight (g/mol)		
weight and CAS No					
	Rebaudioside M	1220616-44-3	1 291,30 1,291.29		
Assay	Not less than 95 % rebaudioside M on the dried basis.				
Description	White to light yellow powder, approximately between 200 and 350 times sweeter than				

	sucrose (at 5 % sucrose equivalency).
Identification	
Solubility	Freely soluble to slightly soluble in water
рН	Between 4,5 and 7,0 (1 in 100 solution)
Purity	
Total ash	Not more than 1 %
Loss on drying	Not more than 6 % (105 °C, 2h)
Residual solvent	Not more than 5 000 mg/kg ethanol
Arsenic	Not more than 0.015 mg/kg
Lead	Not more than 0.2 mg/kg
Cadmium	Not more than 0.015 mg/kg
Mercury	Not more than 0.07 mg/kg
Residual protein	Not more than 5 mg/kg
Particle size	Not less than 74 μm [using a mesh #200 sieve with a particle size limit of 74 μm] '