CODEX ALIMENTARIUS COMMISSION E



Food and Agriculture Organization of the United Nations



Agenda Item 8 (a)

CX/FA 13/45/16 January 2013

#### JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON FOOD ADDITIVES

#### **Forty-fifth Session**

#### Beijing, China 18-22 March 2013

#### PROPOSALS FOR ADDITIONS AND CHANGES TO THE PRIORITY LIST OF FOOD ADDITIVES PROPOSED FOR EVALUATION BY JECFA

#### (Replies to CL 2012/8-FA)

The following comments have been received from the following Codex members and observers

European Union, Iran, Japan, United States of America, CEFIC and ISDI

#### **EUROPEAN UNION**

**I.)** The European Union is proposing to add the following compounds to the priority list of compounds to be proposed for evaluation by JECFA:

- 1) Beta-glucanase and xylanase from Disporotrichum dimorphosporum
- 2) Beta-glucanase, cellulase and xylanase from Talaromyces emersonii
- 3) Tagetes extract
- 4) Poyvinyl alcohol (PVA)-poyethylene glycol (PEG) graft co-polymer.

The forms containing information on the compounds to be evaluated by JECFA are attached.

**II).** Furthermore, the European Union would like to propose an amendment to the JECFA specifications of **"gellan gum" (INS 418)** to reflect the current practices relating to the use of ethanol in the manufacturing process of INS 418.

The European Union would like to kindly request JECFA to update the specifications for INS 418 gellan gum to permit the use of ethanol in the manufacturing process as an alternative to isopropyl alcohol. Ethanol is already in use for this purpose in the EU and the EU's specifications were updated accordingly. Moreover, ethanol is considered to be of less safety concern.

Please see the proposed amendment in track changes below:

**DEFINITION** Gellan gum is a high molecular weight polysaccharide gum produced by a pure culture fermentation of a carbohydrate by Pseudomonas elodea, purified by recovery with isopropyl alcohol <u>or</u> <u>ethanol</u>, dried, and milled. The high molecular weight polysaccharide is principally composed of a tetrasaccharide repeating unit of one rhamnose, one glucuronic acid, and two glucose units, and is substituted with acyl (glyceryl and acetyl) groups as the O-glycosidically-linked esters. The glucuronic acid is neutralized to a mixed potassium, sodium, calcium, and magnesium salt. It usually contains a small amount of nitrogen containing compounds resulting from the fermentation procedures.

#### Appendix I GSC CODEX MESSAGE CCFA 45/2013/29

#### FORM ON WHICH INFORMATION ON THE COMPOUND TO BE EVALUATED BY JECFA IS PROVIDED

In completing this form, only brief information is required. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

Name of Compound(s):	Beta-glucanase and xylanase from <i>Disporotrichum dimorphosporum</i>
Question(s) to be answered by JECFA	Safety evaluation when used as processing aid.
(kindly provide a brief justification of the request in case of re-evaluations)	

#### 1. Proposal for inclusion submitted by:

#### Ministry of Health, Welfare and Sport

Nutrition, Health Protection and Prevention Department Parnassusplein 5 2511 VX The Hague P.O. box 20350 2500 EJ The Hague The Netherlands Tel: +31 703407132

#### 2. Name of compound; trade name(s); chemical name(s):

Name of compound	: Beta-glucanase and xylanase from Disporotrichum dimorphosporum
Trade names	: FILTRASE BR and BREWERS FLOW
Chemical names	: endo-1,3(4)-β-glucanase (EC 3.2.1.6)
	endo-1,4-β-xylanase (EC 3.2.1.8)

#### 3. Names and addresses of basic producers:

DSM Food Specialties 15 Rue des Comtesses PO Box 239 59472 Seclin Cédex France Tel: 33 320964545 Fax: 33 320964500

#### 4. Has the manufacturer made a commitment to provide data?

Yes.

#### 5. Identification of the manufacturer that will be providing data (Please indicate contact person):

Dr Jack Reuvers Regulatory Affairs DSM Food Specialties PO Box 1 2600 MA Delft The Netherlands Tel: 31 15279 Fax: 31 152793614 E-mail: J.Reuvers@dsm.com

#### 6. Justification for use:

The enzyme preparation is used in beer brewing and other fermented beverages to hydrolyse beta-glucans, pentosans, and other gums. This reduces the viscosity of the solution and thereby increases the filtration rate of both wort and beer, and haze is avoided.

### 7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

The enzyme preparation is used as processing aid in beer brewing and other fermented beverages in accordance with current Good Manufacturing Practice (cGMP). The dosage of the enzyme varies between 3 and 25 mg Total Organic Solids (TOS)/kg malted barley, depending on the specific application.

## 8. Is the compound currently used in food that is legally traded in more than one country? (please identify the countries); or, has the compound been approved for use in food in one or more country? (please identify the country(ies))

The enzyme preparation containing beta-glucanase and xylanase derived from *Disporotrichum dimorphosporum* is authorized in the following countries:

- Australia : Food Standard 1.3.3 on Processing Aids
- Brazil : Dairio Oficial 2009
- China : Hygiene Standard for Uses of Food Additives, GB 2760-2011

• France : Order 5.9.89, Annex, (Arrete September 5, 1989, Annex 1C)

#### 9. List of data available (please check, if available)

The production organism is from a safe strain as described in the decision tree in Pariza and Johnson, 2001<sup>1</sup>. However, to accommodate various registration requirements in different countries world-wide, a full toxicity program for food enzymes has been performed according to the SCF guidelines for the evaluation of food enzymes<sup>2</sup>.

#### Toxicological data

(i) Metabolic and pharmacokinetic studies

Not applicable.

(ii) Short-term toxicity, long-term toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies

The following studies have been conducted in accordance with internationally accepted guidelines (OECD/EU/FDA) and do not give any concerns:

- Test for mutagenic activity (Ames Test)
- Human lymphocyte cytogenetic assay (in vitro micronucleus test)
- 13 weeks oral toxicity study in rats

The conclusion of the safety studies can be summarized as follows:

The enzyme from *Disporotrichum dimorphosporum* shows no mutagenic and clastogenic activity.

13 weeks oral administration of the enzyme to rats did not cause in dose related findings. Therefore, the highest dose administered, 199 mg TOS/kg body weight/day, is considered as the NOAEL.

(iii) Epidemiological and/or clinical studies and special considerations

Not applicable.

(iv)Other data

None.

#### Technological data

(i) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce)

The product conforms to the General Specifications and Considerations for Enzyme Preparations Used in Food Processing as prepared by the Joint FAO/WHO Expert Committee on Food Additives at its sixty-seventh meeting for publication in FAO JECFA Monographs 3 (2006) and to the acceptance criteria, impurity limits, other test and other requirements for enzyme preparations listed in the Food Chemicals Codex, 7th edition.

(ii) Technological and nutritional considerations relating to the manufacture and use of the listed compound

The enzyme preparation from *Disporotrichum dimorphosporum* will be used as processing aid in the manufacture of beer and other fermented beverages. The function of the enzymes present in the preparation takes place in the malting process step during the early stage of brewing. During the wort boiling step in the beer production process, the enzyme activity is lost. No residual enzyme activity remains in the final product after brewing. The use of the enzyme preparation as processing aid has no influence on the nutritional properties of the final product.

#### Intake assessment data

(i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used

Based on the dose of 3-35 mg TOS/kg barley, and the fact that 1 kg barley results in 5 L beer, the amount of TOS in the final product will be 0.6-7 mg TOS/L beer.

<sup>&</sup>lt;sup>1</sup> Pariza MW, Johnson EA; Evaluating the safety of microbial enzyme preparations used in food processing: update for a new century; Regul Toxicol Pharmacol 2001 Apr;33(2):173-86.

<sup>&</sup>lt;sup>2</sup> Opinion expressed by the Scientific Committee for Food on 11 April 1991, <u>http://ec.europa.eu/food/fs/sc/scf/reports/scf\_reports\_27.pdf</u>.

(ii) Estimation of dietary intakes based on food consumption data for foods in which the compound may be used.

Based on the conservative calculation by means of the Budget method, and assuming that the daily intake of beer and/or fermented beverage is comparable with the amount of soft drinks, i.e. 0.025 L/kg bw/day, the daily intake will be 0.015 - 0.175 mg TOS/kg bw/day.

#### Other information as necessary

None

#### 10. Date on which data could be submitted to JECFA

As soon as necessary.

#### Appendix II GSC CODEX MESSAGE CCFA45/2013/29

#### FORM ON WHICH INFORMATION ON THE COMPOUND TO BE EVALUATED BY JECFA IS PROVIDED

In completing this form, only brief information is required. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

Name of Compound(s):	Beta-glucanase, cellulase and xylanase from <i>Talaromyces emersonii</i>
Question(s) to be answered by JECFA (kindly provide a brief justification of the request in case of re-evaluations)	Safety evaluation when used as processing aid.

#### 1. Proposal for inclusion submitted by:

#### Ministry of Health, Welfare and Sport

Nutrition, Health Protection and Prevention Department Parnassusplein 5 2511 VX The Hague P.O. ox 20350 2500 EJ The Hague The Netherlands Tel: +31 703407132

#### 2. Name of compound; trade name(s); chemical name(s):

Name of compound	: Beta-glucanase, cellulase and xylanase from Talaromyces emersonii
Trade names	: FILTRASE NL, FILTRASE BR-X, FILTRASE NLC, FILTRASE BXC and BREWERS COMPASS
Chemical names	: endo-1,3(4)-β-glucanase (EC 3.2.1.6)
	cellulase (EC 3.2.1.4)
	endo-1,4-β-xylanase (EC 3.2.1.8)

#### 3. Names and addresses of basic producers:

DSM Food Specialties 15 Rue des Comtesses PO Box 239 59472 Seclin Cédex France Tel: 33 320964545 Fax: 33 320964500

#### 4. Has the manufacturer made a commitment to provide data?

Yes.

#### 5. Identification of the manufacturer that will be providing data (Please indicate contact person):

Dr Jack Reuvers Regulatory Affairs DSM Food Specialties PO Box 1 2600 MA Delft The Netherlands Tel: 31 15279 Fax: 31 152793614 E-mail: J.Reuvers@dsm.com

#### 6. Justification for use:

The enzyme preparation is used in beer brewing and in other fermented beverages to hydrolyse betaglucans, pentosans, and other gums. This reduces the viscosity of the solution and thereby increases the filtration rate of both wort and beer, and haze is avoided.

## 7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

The enzyme preparation is used as processing aid in beer brewing and other fermented beverages in accordance with current Good Manufacturing Practice (cGMP). The dosage of the enzyme varies between 0.58 and 23 mg Total Organic Solids (TOS)/kg malted barley, depending on the specific application.

## 8. Is the compound currently used in food that is legally traded in more than one country? (please identify the countries); or, has the compound been approved for use in food in one or more country? (please identify the country(ies))

The enzyme preparation containing beta-glucanases and xylanase derived from *Talaromyces emersonii* is authorized in the following countries:

- France : Arrete 2006
- United Kingdom : Ministry Agriculture, Fisheries and Food FAC/REP/35, 1982
- Australia : Food Standard 1.3.3 on Processing Aids
- Brazil : Dairio Oficial 2009
- China : Hygiene Standard for Uses of Food Additives, GB 2760-2011

#### 9. List of data available (please check, if available)

The production organism is from a safe strain as described in the decision tree in Pariza and Johnson, 2001<sup>3</sup>. However, to accommodate various registration requirements in different countries world-wide, a full toxicity program for food enzymes has been performed according to the SCF guidelines for the evaluation of food enzymes<sup>4</sup>.

#### Toxicological data

(i) Metabolic and pharmacokinetic studies

Not applicable.

(ii) Short-term toxicity, long-term toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies

The following studies have been conducted in accordance with internationally accepted guidelines (OECD/EU/FDA) and do not give any concerns:

- Test for mutagenic activity (Ames Test)
- Human lymphocyte cytogenetic assay (in vitro micronucleus test)
- 13 weeks oral toxicity study in rats

The conclusion of the safety studies can be summarized as follows:

<sup>&</sup>lt;sup>3</sup> Pariza MW, Johnson EA; Evaluating the safety of microbial enzyme preparations used in food processing: update for a new century; Regul Toxicol Pharmacol 2001 Apr;33(2):173-86.

<sup>&</sup>lt;sup>4</sup> Opinion expressed by the Scientific Committee for Food on 11 April 1991, <u>http://ec.europa.eu/food/fs/sc/scf/reports/scf\_reports\_27.pdf</u>

The enzyme from *Talaromyces emersonii* shows no mutagenic and clastogenic activity.

13 weeks oral administration of the enzyme to rats did not cause in dose related findings. Therefore, the highest dose administered, 85 mg TOS/kg body weight/day, is considered as the NOAEL.

(iii) Epidemiological and/or clinical studies and special considerations

Not applicable.

(iv)Other data

None.

#### Technological data

(i) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce)

The product conforms to the General Specifications and Considerations for Enzyme Preparations Used in Food Processing as prepared by the Joint FAO/WHO Expert Committee on Food Additives at its sixty-seventh meeting for publication in FAO JECFA Monographs 3 (2006) and to the acceptance criteria, impurity limits, other test and other requirements for enzyme preparations listed in the Food Chemicals Codex, 7<sup>th</sup> edition.

(ii) Technological and nutritional considerations relating to the manufacture and use of the listed compound

The enzyme preparation from *Talaromyces emersonii* will be used as processing aid in the manufacture of beer and other fermented beverages. The action of the enzymes present in the preparation takes place in the malting process step in the early stage of brewing. During the wort boiling step in the beer production process, the enzyme activity is lost. No residual enzyme activity remains in the final product after brewing. The use of the enzyme preparation as processing aid has no influence on the nutritional properties of the final product.

#### Intake assessment data

(i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used

Based on the dose of 0.58 - 23 mg TOS/kg barley, and the fact that 1 kg barley results in 5 L beer, the amount of TOS in the final product will be 0.12 - 4.6 mg TOS/L beer.

(ii) Estimation of dietary intakes based on food consumption data for foods in which the compound may be used.

Based on the conservative calculation by means of the Budget method, and assuming that the daily intake of beer and/or fermented beverage is comparable with the amount of soft drinks, i.e. 0.025 L/kg bw/day, the daily intake will be 0.003 - 0.12 mg TOS/kg bw/day.

#### Other information as necessary

None

#### 10. Date on which data could be submitted to JECFA

As soon as necessary.

#### Appendix III GSC CODEX MESSAGE CCFA45/2013/29

#### FORM ON WHICH INFORMATION ON THE COMPOUND TO BE EVALUATED BY JECFA IS PROVIDED

In completing this form, only brief information is required. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

Name of Compound(s):	Tagetes extract
Question(s) to be answered by JECFA	Safety assessment including establishing of an ADI
(kindly provide a brief justification of the request in	and revision of specification
case of re-evaluations)	

#### 1. Proposal for inclusion submitted by:

Germany

#### 2. Name of compound; trade name(s); chemical name(s):

Tagetes extract; Xangold®; Lutein ester; Xanthophylls; Mixed carotenoids; INS 161b(ii)

#### 3. Names and addresses of basic producers:

BASF SE, D-68623 Lampertheim, Germany

#### 4. Has the manufacturer made a commitment to provide data?

Yes

#### 5. Identification of the manufacturer that will be providing data (Please indicate contact person):

#### **Brigitte Grothe**

Senior Manager Global Regulatory Affairs / Human Nutrition, BASF SE Phone: +49 621 60-44322 Fax: +49 621 60-6644322 E-Mail: brigitte.grothe@basf.com

#### 6. Justification for use:

Alternative source of lutein for colouring purposes.

7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

Same categories as lutein INS 161b(i).

8. Is the compound currently used in food that is legally traded in more than one country? (please identify the countries); or, has the compound been approved for use in food in one or more country? (please identify the country(ies))

Permitted as food colour in the EU (Dir. 94/36/EC and Reg. (EC) No. 1333/2008)

#### 9. List of data available (please check, if available)

#### Toxicological data

(i) Metabolic and pharmacokinetic studies

Available

(ii) Short-term toxicity, long-term toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies

Available

(iii) Epidemiological and/or clinical studies and special considerations

Available

(iv) Other data

Technological data

(v) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce)

Available

(vi)Technological and nutritional considerations relating to the manufacture and use of the listed compound

Available

#### Intake assessment data

(i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used

Comparable to Lutein INS 161b(i)

(ii) Estimation of dietary intakes based on food consumption data for foods in which the compound may be used.

Comparable to Lutein INS 161b(i)

#### Other information as necessary

#### 10. Date on which data could be submitted to JECFA:

Immediately

#### Appendix IV GSC CODEX MESSAGE CCFA45/2013/29

#### FORM ON WHICH INFORMATION ON THE COMPOUND TO BE EVALUATED BY JECFA IS PROVIDED

In completing this form, only brief information is required. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

Name of Compound(s):	Polyvinyl alcohol (PVA)-polyethylene glycol (PEG)
	graft co-polymer
Question(s) to be answered by JECFA	Safety assessment and establishing of specification
(kindly provide a brief justification of the request in	and INS number
case of re-evaluations)	

#### 1. Proposal for inclusion submitted by:

Germany

#### 2. Name of compound; trade name(s); chemical name(s):

Polyvinyl alcohol (PVA)-polyethylene glycol (PEG) graft co-polymer; Kollicoat® IR; Polyvinyl alcohol-polyethylene glycol-graft-co-polymer

#### 3. Names and addresses of basic producers:

BASF SE, D-68623 Lampertheim, Germany

#### 4. Has the manufacturer made a commitment to provide data?

Yes

#### 5. Identification of the manufacturer that will be providing data (Please indicate contact person):

#### **Brigitte Grothe**

Senior Manager Global Regulatory Affairs / Human Nutrition, BASF SE Phone: +49 621 60-44322 Fax: +49 621 60-6644322 E-Mail: brigitte.grothe@basf.com

#### 6. Justification for use:

PVA-PEG graft co-polymer is used mainly for the production of instant-release coatings for food supplements tablets/capsules. The special advantages of PVA-PEG graft co-polymer lies in its enormous flexibility, low viscosity and rapid rate of dissolution.

### 7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

PVA-PEG graft co-polymer-based film coating formulations are applied to food supplement tablets/capsules. PVA-PEG graft co-polymer may constitute up to 5.0% of the weight of the tablet/capsule.

# 8. Is the compound currently used in food that is legally traded in more than one country? (please identify the countries); or, has the compound been approved for use in food in one or more country? (please identify the country(ies))

PVA-PEG graft co-polymer is applied for use in food supplements in the European Union; decision is pending. Furthermore PVA-PEG graft co-polymer is world-wide used in several pharmaceutical applications at comparable use concentrations.

#### 9. List of data available (please check, if available)

#### Toxicological data

(i) Metabolic and pharmacokinetic studies

Study of the Bioavailability after Oral Administration in Rats (BASF 2001)

(ii) Short-term toxicity, long-term toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies

Prenatal Development Toxicity Study in Wistar Rats Oral Administration (Gavage) (BASF 2002), Salmonella Typhimurium / Escherichia Coli Reverse Mutation Assay (Standard Plate Test and Preincubation Test) (BASF 2000),

In Vitro Gene Mutation Test in L5178Y Mouse Lymphoma Cells (TK+/- Locus Assay, Microwell Version) (BASF 2000),

Cytogenetic Study in Vivo in the Mouse Micronucleus Test After Two Intraperitoneal Administrations (BASF 2001),

Chronic Oral Toxicity in Beagle Dogs Administration in the Diet for 9 Months (BASF 2002),

Subchronic Toxicity in Wistar Rats Administration in Drinking Water for 3 Months (BASF 2001)

Prenatal Developmental Toxicity Study in Himilayan Rabbits Oral Administration (Gavage) (BASF 2002),

Fertility and Pre-/ Postnatal Developmental Toxicity Study in Wistar Rats Oral Administration (Gavage) (BASF 2003),

Acute Oral Toxicity in Rats (BASF 2000),

Acute Dermal Irritation / Corrosion in Rabbits (BASF 2000),

Acute Eye Irritation in Rabbits (BASF 2000)

(iii) Epidemiological and/or clinical studies and special considerations

#### (iv) Other data

#### Technological data

(i) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce)

Available

(ii) Technological and nutritional considerations relating to the manufacture and use of the listed compound

Available

#### Intake assessment data

(i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used

Application levels in food supplements available

(ii) Estimation of dietary intakes based on food consumption data for foods in which the compound may be used.

Available

#### Other information as necessary

#### 10. Date on which data could be submitted to JECFA:

Immediately

#### **IRAN**

Regarding the document CL 2012/8-FA, we have the following comments. Please note that we have already submitted comments and discussed on Priority list of compounds proposed for evaluation by JECFA in last year. Please kindly submit the following comments to Codex Secretariat. If anyone needs background information about this document or have question please do not hesitate to ask us.

We request the following items to be discussed in the 45<sup>th</sup> CCFA committee and if they are endorsed by the committee to be added to the form on page 3.

1. Is the compound currently banned for use in food in any country or recognized advisory body? Is there any scientific justification for this ban or in other words significant of health risk can be substantiated from any country?

In continuation to question 8 of the document- How long the product has been used?

- 2. The method of production is relevant. Is there any other methods of production which produce the same product but the analysis require different test methods. Does one monograph can cover all of the methods?
- 3. In continuation to Intake assessment data question (ii) if it is appropriate to add: Is there any new data available from intake assessment that suggest that this additive would significantly change the diet pattern of a country or a region?

#### <u>JAPAN</u>

#### FORM ON WHICH INFROMATION ON THE COMPOUND TO BE EVALUATED BY JECFA IS

#### PROVIDED

In completing this form, only brief information is required. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

Name of Compound(s):	Polyoxyethylene (20) Sorbitan Monostearate, Polysorbate60
<b>Question(s) to be answered by JECFA</b> (Kindly provide a brief justification of the request in case of re-evaluations)	Revision of Specifications (Change of Saponification value and Hydroxyl value)

#### 1. Proposal for inclusion submitted by:

#### JAPAN

#### 2. Name of compound; Trade name(s); Chemical name(s):

Polyoxyethylene (20) Sorbitan Monostearate, Polysorbate60

#### 3. Names and addresses of basic producers:

NOF Corporation Yebisu Garden Place Tower 20-3, Ebisu 4-Chome, Shibuya-ku, Tokyo 150-6019 Japan

#### 4. Has the manufacturer made a commitment to provide data? :

Yes

#### 5. Identification of the manufacturer that will be providing data (Please indicate contact person):

Manufacturer: NOF Corporation

(Contact person: Toyohisa Kobayashi, General Manager, Planning & Administration Department, Oleo & Specialty Division, TEL +81-3-5795-3644, E-mail toyohisa\_kobayashi@nof.co.jp)

#### 6. Justification for use:

Emulsifier(widely used in dairy products and bakery products shown in Appendix 1)

7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

Consult Appendix 1.

8. Is the compound currently used in food that is legally traded in more than one country? (Please identify the countries); or, has the compound been approved for use in food in one or more country? (Please indentify the country (ies)):

Yes / Polysorbate 60 is permitted and used in European Union, USA, Japan, China, Korea, etc.

#### 9. List of data available (please check, if available)

#### Toxicological data

- (i) Metabolic and pharmacokinetic studies
- (ii) Short-term toxicity, long-term toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies
- (iii) Epidemiological and/or clinical studies and special considerations

#### (iv)Other data

#### Technological data

(i) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce):

#### Revision of Specifications (Change of Saponification value and Hydroxyl value)

In the specification of the Polyoxyethylene (20) Sorbitan Monostearate regulated by JECFA, the ranges of 'Hydroxyl value' and a 'Saponification value' are not harmonized with many other countries (regions) like EU, USA, Japan etc., (see Appendix 2). We would like to propose revising these specifications.

(ii) Technological and nutritional considerations relating to the manufacture and use of the listed compound:

#### 🗌 Intake assessment data

- (i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used
- (ii) Estimation of dietary intakes based on food consumption data for foods in which the compound may be used.

#### Other information as necessary

#### 10. Date on which data could be submitted to JECFA:

December, 2013

#### Appendix I GSFA Online Food Additive Group Details Polysorbates

Appendix II

	JECFA	JAPAN	USA	EU
Regulation No.	INS435		§172.836	E435
Assay	97.0-103.0%	-	—	≧97%
Oxyethylene content	65.0-69.5%	65.0-69.5%	65-69.5%	≧65%
Water	≦3%	≦3.0%	_	≦3%
Sulfated ash	≦0.25%	≦0.25%	—	-
Acid value	≦2	≦2.0	0-2	≦2
Saponification value	41-52	45-55	45-55	45-55
Hydroxyl value	90-107	81-96	81-96	81-96
1,4-Dioxane	≦10 mg/kg	≦10 µg/g	_	≦5 mg/kg
Lead	≦2 mg/kg	≦2.0 µg/g	_	≦2 mg/kg

asr	A Oslini	Pood Additive Group Details for POLYSORBATE	8	Append
G	SFA	Online	DOUBLE CONTRACTOR	SPACE AND STREET
1000	tated up t	o the 25 <sup>th</sup> Bossien of the Codes Almenterius Commission		
FC	DOD A	DDITIVE GROUP DETAILS		
1%	POLY	SORBATES		
where part	provisional Depositing to	when follow and defined as the addition group level, and these apply a this group, definitions that make up this group are provided for m	has been dealed mankering of 40 Namin Co. comp.	tier and discovery
-	tiotestin	g Additive(v)		
199999	+ No. Ad +32 Po +33 Po +34 Po 430 Po 430 Po	öltivä Maana (yveryeltydeen (30) eeskiken mässäkuureta (yösyeltydeen (20) eeskiken mässäkuureta (yösyeltydeen (20) eeskiken mässäkuureta Yveryettydeen (20) eeskiken mässäkuureta		
REAR	WethEld			
.08	FA Pre	evisions for POLYSORBATES		
	Number	Food Catogory	Har Lovel	Parton Bastin
16	\$4.9.7	Aromaticad alcoholic beverages (e.g., heer, wine and apprintme codes: type beverages, low alcoholic references)	£20 mg/kg	
14	1240.48	Rollers (e.g., for boundley or bottors for fish or poulley)	3,000 mp/hg	Si Pinta 2
32	03.9.8	Bovorisgia whitemen	4,060 mg/sg	
	07.4.4	friend type preducts, tochoding formal statting and freed scorely	8,000 mg/hg	Tel Plane & k
-04	07.8.4	Breads and colls	1,000 mig/mg	
24	00.3	Coreal and Marsh haved desserts (0.9., ries pudding, taploch pudding)	3,000 (32/93)	
10	0.0.0	Chowing gum	5,000 050/50	
79	42-6-4	Glove sources (e.g., fish source)	10,000 mig/log	
14	03.4.3	Clutted science (plain)	1,000 ma/ko	
- YA	0.9.1.4	Cocce and chocolate preducts	\$,000 mm/km	ford Printer in Co. 6
10	0.0.8.3	Corner misson (styrops)	600 mg/hg	
70e	00.8.3	Cases assed spreads, including fillings	1,000 marka	
10	09.2	Confectionary including hard and such samely, magnets, ate. other than tood categories 05.1, 05.3 and 05.4	1,000 ma/kg	14337 22
65	10.2.8.2	teachers, excluding sweet crockers	5,000 mg/hg	find burnten #.R.
60	01.4.4	Greans analogues	5,000 mg/kg	
	01.7	Dabry-laneed desseries (e.g., pudsing, fruit as flavoured yeahort)	3,000 ma/kg	
64		Patry-based crinks, theoured and/or formanted (n.g., should not mits, cores, econod, drinking voghurt, whey traced drinks)	3,000 ma/ku	
"be	0.5.4	Descentions (e.g., for free balany wares), toppings (non-fault) and event encous	a, and marka	
10	10.0	Distorts foods infinited for special medical purposes (evoluting products of food category 13.1)	4,000 mg/kg	
.15		contactor formulas for allorating purposes and weight	1,000 mg/hg	
34	14.3.9	Distilled spiritumus invarages annihibing more than 1956 stooted	\$20 mp/kg	

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http://www.codexalimontarius.not/gsfaonfina/groups/datails.html?is=89&print=term=2012/00/10

OSFA Online Food Additive Group Datails for POLYSORBATES

	160	00.4.2	firind pastas and modifies and the preducks	5,000 ma/ka	
	· 1 <sub>20</sub>	00-4	thible cashige (e.g., susange casings)	1.500 ma/ka	
	70	03.0	Edible Ices, inclusing starbut and sortest	1,000 mg/kg	
	- Yes	3.0.4	fightered descats (e.g., custord)	3.600 mm/kg	
	"fie	\$3.6.8	Familalited seaces and dips (a.g., mayonnates, salad dressing, online dip)	3,000 mg/by	
	·6+	02-3	Fat emulsions mainly of type all-in-water, including mixed and/or flavoured products bound on the emulsions	8,000 mg/bg	GINORS LOIR
	160	10.R. S. it.	Fot spreads, dairy fat spreads and blended spreads	5.000 mo/im	El Note 102
	·64	02.4	Fat-based descerts accluding dairy-feaned descert products of food category 0 L7	00,000 maylea	53 moto 102
	- Ne	07.3	Pine bokery wares (sweet, sally, savery) and edges	2,000 marks	
	23	8.0.0	Food supplementa	25,000 mg/kg	
	Tes.	04.1.2.11	Prof. fillings for partition	IL OIDER many lost	
	ъ	04,1.2.8	Proit preparations, including pulp, pursue, trutt toppings and coconst mile	1,000 ma/ha	6 reose as-e
5 m 14	'D3	04.1.2.9	Proft-based desserts, including freit-flavoured water- based dessets	3,000 mp/kg	
	194	* 9. 31. 3.	Marke and extens	3.640 ma/kg	
	्यक	0.5-1.0	Doitation chocolate, chocolate subsidiate products	5,000 mg/kg	
	120	0.2.5.0	Lard, tallow, fish off, and other assistant fais	5.000 mg/log	6] Nota 102
	"Get	0.4.SiR	Milk and cream poveder analogues	4,000 mg/kg	
- CR	*@a	07.4.6	Mixes for brood and ordinary bahary wares	5,000 ma/log	GIPSOER S.S.
	764	82.6.3	Nixes for sauces and gravies	5,000 mg/kg	12 Months # 12.2
	Te.	\$2.8.2	New emulaitied spoces (e.g., Establish, choses saves, scenes, brown gravy)	8,000 mg/hg	
	·61	03.8.0	Other ordinary balcory products (e.g., bagels, pHa, English multine)	3,000 mp/log	GI Note 11
	- 109	01.4.5	Pastourized cross (plata)	3,000 ma/ka	
	380	196.4.8	Pro-cooked pastas and nooding and like products	5,000 ma/ka	Is Note 153
	100	49.3	Processed communited meat, poulley, and game products	5,000 ma/ka	
	-63	00.3	processed mean, poultry, and game preducts is whole pieces or cuts	5,000 ma/ka	
	ाध	A.M. P	builds (e.g., mean out which, putets and d) and build by presde excluding second and nut-based spreads of food extendedos 04.2.2 and 08.1.3	2,000 mg/kg	
	'Eu	10.1.1	famile.	1.0 mp/kp	
	Ter	4.8.8.2	Seesonings and comments	5,000 moders	
	16	12.8	Sunga and broths	LODD must be	
	100	07.4.5	Steamed breads and burns	3.000 mm/km	The second second
	161	08.4.3	Sterilized and URF creams, whipping and whipped resams, and versional fat creams (plans)	3,090 mg/hg	
	76.4	04.6.4	independent chause	did tempologi	(i.) Note 36.
	°b	04.3.3.6	Vegetable (including outstrooms and hangt, soots and tuburs, pulses and legarmes, and also vora), soovend, and not and seed paips and proportions (o.g., vegetable descerts and warmes, constitut vegetables) other them from settingury GL-3.3.8	3,000 mg/bg	
	754	D3.3.3	Vegetable nils and fats	8.000 maring	Cittore 103
	34	14.1.4	Water-based Browsend debds, inclusing "space" "aboring," in "abolicity's fricks and particulated debts	996 mg/log	Chois 139

page 2/2 http://www.codexslimentsrius.net/gsfacoline/groups/details.html?id=888print=true 2012/08/18

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#### UNITED STATES OF AMERICA

The United States appreciates the opportunity to provide the following comments for consideration at the forthcoming 45<sup>th</sup> Session of the Codex Committee on Food Additives (CCFA).

#### Addition to the JECFA Priority List

The United States proposes the inclusion of 114 flavors on the JECFA Priority List, which include 39 new flavors and 75 flavors that were included on the JECFA Priority List at the 43<sup>rd</sup> CCFA. The required information for the flavors (as prescribed in Annex 2 of CL 2012/8-FA) is attached as the Appendix to this letter. The full list of 114 flavors is also attached as the Annex to this letter. The flavors in the Annex are sorted by Chemical Group, and are identified as to whether they are new submissions or were submitted at the 43<sup>rd</sup> CCFA.

#### Appendix - Required Information based on Annex 2 of CL 2010/10-FA

List of 114 flavors (comprising 39 new proposals and 75 flavors previously submitted for inclusion on the JECFA Priority List)

#### 1. Proposal for inclusion submitted by:

The United States of America

#### 2. Name of compound; trade name(s); chemical name(s):

List of 114 flavors (See Annex A for list of chemical names)

#### 3. Names and addresses of basic producers:

Producer contact information to be submitted. Flavor producers are members of the International Organization of the Flavour Industry (IOFI). All contacts can be made through IOFI.

#### 4. Has the manufacturer made a commitment to provide data?

Yes

#### 5. Identification of the manufacturer that will be providing data (Please indicate contact person):

International Organization of the Flavor Industry (IOFI) Brussels, Belgium Sean V. Taylor, Ph.D. (Science Director) 1620 I Street NW Suite 925 Washington, DC 20006 P: 202-293-5800 staylor@vertosolutions.net

#### 6. Justification for use:

Flavouring ingredients in foods for human consumption

7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

Natural occurrence, Food Categories and Use Levels to be submitted.

8. Is the compound currently used in food that is legally traded in more than one country" (please identify the countries); or, has the compound been approved for use in food in one or more country? (please identify the country(ies))

Yes (USA, EU, Japan)

#### 9. List of data available (please check, ifavailable)

#### Toxicological data

(i) Metabolic and pharmacokinetic studies

Yes

(ii) Short-term toxicity. long-tenn toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies

(iii) Epidemiological and/or clinical studies and special considerations

Yes

(iv)Other data

Yes where relevant

#### Technological data

(i) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce)

Yes

(ii) Technological and nutritional considerations relating to the manufacture and use of the listed compound

Yes where relevant

#### Intake assessment data

(i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used.

Yes

(ii) (Estimation of dietary intakes based on food consumption data for foods in which the compound may be used.

Yes

#### Other information as necessary

#### 10.Date on which data could be submitted to JECFA:

December 01, 2013

Annex A.	List of 114	flavors for	inclusion on tl	he JECFA	<b>Priority List</b>
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History	FEMA No	JECFA No	CAS	Principle Name	Group No	TRS No
	ALLYL ESTERS				J03	TRS868
				Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4074		6321-45-5	Allyl valerate		
Submitted at 43 <sup>rd</sup> CCFA	4072		20474-93-5	Allyl crotonate		
	SATURATED ALIPHATIC ACYCI ACIDS			IC LINEAR PRIMARY ALCOHOLS, ALDEHYDES, AND	J04	TRS884
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4432		25334-93-4	(+/-) Acetaldehyde ethyl isopropyl acetal		
Submitted at 43 <sup>rd</sup> CCFA	4335		10486-19-8	Tridecanal		
Submitted at 43 <sup>rd</sup> CCFA	4528		6986-51-2	Acetaldehyde ethyl isobutyl acetal		
Submitted at 43 <sup>rd</sup> CCFA	4336		638-53-9	Tridecanoic acid		
Submitted at 43 <sup>rd</sup> CCFA	4527		5669-09-0	Acetaldehyde di-isobutylacetal		
Submitted at 43 <sup>rd</sup> CCFA	4688		105-82-8	1-Dipropoxyethane		
Submitted at 43 <sup>rd</sup> CCFA	4334		1002-84-2	Pentadecanoic acid		
				Structural Class III		
Submitted at 43 <sup>rd</sup> CCFA	4010		123-63-7	Paraldehyde		

History	FEMA No	JECFA No	CAS	Principle Name	Group No	TRS No
	ALIPHA		ONES		J06	TRS884 TRS960
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4673		7370-44-7	delta-Hexadecalactone		
Submitted at 43 <sup>rd</sup> CCFA	4685		7370-92-5	(±)-6-Octyltetrahydro-2H-pyran-2-one		
	ESTERS ALIPHA	S OF ALI TIC ACYC	PHATIC ACYC LIC ACIDS	LIC PRIMARY ALCOHOLS WITH BRANCHED-CHAIN	J08	TRS884
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4347		850309-45-4	4-Methylpentyl isovalerate		
Submitted at 43 <sup>rd</sup> CCFA	4346		180348-60-1	5-Methylhexyl acetate		
Submitted at 43 <sup>rd</sup> CCFA	4343		25415-67-2	Ethyl 4-methylpentanoate		
Submitted at 43 <sup>rd</sup> CCFA	4344		2983-38-2	Ethyl 2-ethylbutyrate		
Submitted at 43 <sup>rd</sup> CCFA	4345		2983-37-1	Ethyl 2-ethylhexanoate		
New Submission	4749		35852-42-7	4-Methylpentyl 4-methylvalerate		
	LINEAR	AND BOLS, ALDI	RANCHED-CH	AIN ALIPHATIC, UNSATURATED, UNCONJUGATED S AND RELATED ESTERS	J14	TRS891 TRS922 TRS947
		•	1	Structural Class I		
New Submission	4768		141-13-9	2,6,10-Trimethyl-9-undecenal		
New Submission	4735		13552-95-9	(4Z,7Z)-Trideca-4,7-dienal		
	ALIPHA STRUC	TIC ACYO	CLIC AND AI RELATED SUB	LICYCLIC TERPENOID TERTIARY ALCOHOLS AND STANCES	J15	TRS891 TRS947 TRS960
		T	1	Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4682		23333-91-7	Octahydro-4,8A-dimethyl-4A(2H)-naphthol		
	CARVO	NE AND S	TRUCTURALLY	RELATED SUBSTANCES	J16	TRS891
		1		Structural Class I		
43 <sup>rd</sup> CCFA	4525		929116-08-5	Pinocarvyl isobutyrate		
Submitted at 43 <sup>rd</sup> CCFA	4515		929222-96-8	Carvyl palmitate		
		T	1	Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4523		51200-86-3	6-Hydroxycarvone		
	INONES	S AND STR	UCTURALLY R	ELATED SUBSTANCES	J17	TRS891
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4151		79-89-0	beta-Isomethylionone		
Submitted at 43 <sup>rd</sup> CCFA	4299		141-10-6	Pseudoionone		
			1	Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4088		24720-09-0	trans-alpha-Damascone		

History	FEMA No	JECFA No	CAS	Principle Name	Group No	TRS No
	ALIPHA HYDRO	TIC ACYO	CLIC AND ALI ES	CYCLIC ALPHA-DIKETONES AND RELATED ALPHA-	J18	TRS891 TRS960
				Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4687		544409-58-7	(±)-3-Hydroxy-3-methyl-2,4-nonanedione		
	MENTH	OL AND S	TRUCTURALLY	( RELATED SUBSTANCES	J19	TRS891 TRS952
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4509		2230-90-2	Menthyl formate		
Submitted at 43 <sup>rd</sup> CCFA	4510		86014-82-6	Menthyl propionate		
Submitted at 43 <sup>rd</sup> CCFA	4524		68366-64-3	I-Menthyl butyrate		
New Submission	4729		3623-52-7	dl-Isomentol		
		•		Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4604		406179-71-3	Dimenthyl glutarate		
		•		Structural Class III		
Submitted at 43 <sup>rd</sup> CCFA	4718		28804-53-7	(±)2-[(2-p-Menthoxy)ethoxy]ethanol		
	SIMPLE ALIPHATIC AND AROMATIC		IC AND AROMA	ATIC SULFIDES AND THIOLS	J20	TRS896
				Structural Class I		
New Submission	4760		53626-94-1	Prenyl thioisobutyrate		
New Submission	4761		75631-91-3	Prenyl thioisovalerate		
New Submission	4769		851768-51-9	5-Mercapto-5-methyl-3-hexanone		
New Submission	4734		1256932-15- 6	3-(Methylthio)-decanal		
		1		Structural Class II		
New Submission	4733		1006684-20- 3	(±) 2-Mercaptoheptan-4-ol		
		1	1	Structural Class III		
New Submission	4730		1241905-19- 0	O-Ethyl S-1-methoxyhexan-3-yl carbonothioate		
	ALIPHA	TIC PRIM	ARY ALCOHOL	S, ALDEHYDES, CARBOXYLIC ACIDS, ACETALS, AND	J21	TRS896
	OXYGE	NATED FU	INCTIONAL GR	OUPS		TRS960
				Structural Class I		
New Submission	4745		62439-41-2	(±)-6-Methoxy-2,6-dimethylheptanal		
Submitted at 43 <sup>rd</sup> CCFA	4719		110-15-6	Succinic acid		
New Submission	4765		1367348-37- 5	Ethyl 5-formyloxydecanoate		
	CINNAN	IYL ALCO	HOL AND REL	ATED SUBSTANCES	J22	TRS901
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4597		620-80-4	Ethyl alpha-acetylcinnamate		
Submitted at 43 <sup>rd</sup> CCFA	4599		1205-17-0	3-(3,4-Methylenedioxyphenyl)-2-methylpropanal		
Submitted at 43 <sup>rd</sup> CCFA	4598		15399-05-0	Ethyl 2-hydroxy-3-phenylpropionate		
				Structural Class III		
Submitted at 43 <sup>rd</sup> CCFA	4596		4353-01-9	Cinnamaldehyde propyleneglycol acetal		

History	FEMA No	JECFA No	CAS	Principle Name	Group No	TRS No
Submitted at 43 <sup>rd</sup> CCFA	4595		67634-23-5	2-Phenylpropanal propyleneglycol acetal		
	PHENO	L AND PHI	ENOL DERIVAT	IVES	J24	TRS901 TRS960
		•	•	Structural Class II		
New Submission	4491		17912-87-7	Myricitrin		
				Structural Class III		
New Submission	4495		18916-17-1	Naringin dihydrochalcone		
New Submission	4764		50297-39-7	1-(2,4-Dihydroxyphenyl)-3-(3-hydroxy-4- methoxyphenyl)propan-1-one		
New Submission	4762		580-72-3	(-)-Matairesinol		
	HYDRO	XY-AND A	LKOXY-SUBST	ITUTED BENZYL DERIVATIVES	J29	TRS909 TRS952
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4431		99-06-9	3-Hydroxybenzoic acid		
Submitted at 43 <sup>rd</sup> CCFA	4430		99-50-3	3,4-Dihydroxybenzoic acid		
Submitted at 43 <sup>rd</sup> CCFA	4435		673-22-3	2-Hydroxy-4-methoxybenzaldehyde		
New Submission	4750		65405-77-8	cis-3-Hexenyl salicylate		
Submitted at 43 <sup>rd</sup> CCFA	4606		930587-76-1	4-Formyl-2-methoxyphenyl 2-hydroxypropanoate		
Submitted at 43 <sup>rd</sup> CCFA	4700		614-60-8	o-trans-Coumaric acid		
<u> </u>		T	1	Structural Class III		
Submitted at 43 <sup>rd</sup> CCFA	4622		61683-99-6	Piperonal propyleneglycol acetal		
Submitted at 43 <sup>rd</sup> CCFA	4627		6414-32-0	Anisaldehyde propyleneglycol acetal		
	ALICYCLIC PRIMARY ALCOHOLS, ALDEHYDES, ACIDS, AND RELATED ESTERS J32					
		•	1	Structural Class II		
New Submission	4776		198404-98-7	(1-Methyl-2-(1,2,2-trimethylbicyclo[3.1.0]hex-3- ylmethyl)cyclopropyl)methanol		
	PHENYI AND RE	J33	TRS913			
		-	•	Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4314		61810-55-7	Phenethyl decanoate		
Submitted at 43 <sup>rd</sup> CCFA	2860		94-47-3	Phenethyl benzoate		
Submitted at 43 <sup>rd</sup> CCFA	4625		6314-97-2	Phenylacetaldehyde diethyl acetal		
Submitted at 43 <sup>rd</sup> CCFA	4619		92729-55-0	Propyl 4-tert-butylphenylacetate		
		I	1	Structural Class III		
Submitted at 43 <sup>rd</sup> CCFA	4629		5468-05-3	Phenylacetaldehyde propyleneglycol acetal		
Submitted at 43 <sup>rd</sup> CCFA	4620		122-99-6	2-Phenoxyethanol		
Submitted at 43 <sup>rd</sup> CCFA	4618		23495-12-7	2-Phenoxyethyl propinate		

History	FEMA No	JECFA No	CAS	Principle Name	Group No	TRS No
	SULFUF	R-CONTAI		CYCLIC COMPOUNDS	J34	TRS913 TRS947
				Structural Class II		
New Submission	4748		54717-17-8	Triethylthialdine		
		•		Structural Class III		
New Submission	4767		67936-13-4	2-Isopropyl-4-methyl-3-thiazoline		
	ALICYC	LIC KETO	NES, SECOND	ARY ALCOHOLS AND RELATED ESTERS	J36	TRS913 TRS960
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4724		21862-63-5	trans-4-tert-Butylcyclohexanol		
New Submission	4742		917750-72-2	1-(2-Hydroxy-4-methylcyclohexyl)ethanone		
	ALIPHATIC SECONDARY ALCOHOLS, KETONES AND RELATED ESTERS			J37	TRS913 TRS952 TRS960	
<b>.</b>		1	1	Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4706		35194-30-0	9-Decen-2-one		
Submitted at 43 <sup>rd</sup> CCFA	4691		1009814-14- 5	Yuzunone		
New Submission	4732		83861-74-9	1,5-Octadien-3-ol		
New Submission	4746		68973-20-6	3,5-Undecadien-2-one		
New Submission	4775		67801-20-1	3-Methyl-5-(2,2,3-trimethylcyclopent-3-en-1-yl)pent-4-en- 2-ol		
	ALICYCLIC, ALICYCLIC-FUSED AND AROMATIC-FUSED RING LACTONES		J38	TRS922		
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4438		591-11-7	beta-Angelicalactone		
				Structural Class III		
Submitted at 43 <sup>rd</sup> CCFA	4140		57743-63-2	2-(2-Hydroxy-4-methyl-3-cyclohexenyl)propionic acid gamma-lactone		
Submitted at 43 <sup>rd</sup> CCFA	4270		5617-64-1	2-(2-Hydroxyphenyl) cyclopropanecarboxylic acid delta- lactone		
	ALIPHATIC, ALICYCLIC, LINEAR, alpha,beta-UNSATURATED, DI-AND TRIENALS AND RELATED ALCOHOLS, ACIDS AND ESTERS				J39	TR\$922
				Structural Class II		
New Submission	4747		91212-78-1	(±)-2,5-Undecadien-1-ol		
	ALIPHA ALDEH	TIC BRA YDES, ACI	NCHED-CHAIN DS, AND RELA	I SATURATED AND UNSATURATED ALCOHOLS, TED ESTERS	J40	TRS922 TRS952
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4486		5694-82-6	Citral glyceryl acetal		
				Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4612		645-62-5	2-Ethyl-2-hexenal		
Submitted at 43 <sup>rd</sup> CCFA	4616		13019-16-4	2-Hexylidenehexanal		

History	FEMA No	JECFA No	CAS	Principle Name	Group No	TRS No
	ALIPHA	TIC AND A	ROMATIC ETH	IERS	J41	TRS922
			1	Structural Class III		
New Submission	4731		871465-49-5	Cassyrane		
New Submission	4759		16510-27-3	1-Cyclopropanemethyl-4-methoxybenzene		
	ALIPHA	TIC AND A		PROCARBONS	J45	TRS928
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4293		111-66-0	1-Octene		
Submitted at 43 <sup>rd</sup> CCFA	4292		56700-78-8	2,4-Nonadiene		
Submitted at 43 <sup>rd</sup> CCFA	4264		475-03-6	alpha-Ionene		
Submitted at 43 <sup>rd</sup> CCFA	4650		691-38-3	4-Methyl-cis-2-pentene		
Submitted at 43 <sup>rd</sup> CCFA	4651		124-11-8	1-Nonene		
Submitted at 43 <sup>rd</sup> CCFA	4652		116963-97-4	1,3,5,7-Undecatetraene		
New	4311		30640-46-1; 1888-90-0	Mixture of methyl cyclohexadiene and methylene cyclohexene		
	MONOCYCLIC AND BICYCLIC SECONDARY ALCOHOLS, KETONES, AND RELATED ESTERS			J48	TRS928 TRS952	
				Structural Class I		
Submitted at 43 <sup>rd</sup> CCFA	4521		97866-86-9	2,2,6,7-Tetramethylbicyclo[4.3.0]nona-4,9(1)-dien-8-ol		
		I	I	Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4513		21368-68-3	dl-Camphor		
Submitted at 43 <sup>rd</sup> CCFA	4519		7787-20-4	I-Fenchone		
Submitted at 43 <sup>rd</sup> CCFA	4522		97844-16-1	2,2,6,7-Tetramethylbicyclo[4.3.0]nona-4,9(1)-dien-8-one		
	AMINO ACIDS AND RELATED SUBSTANCES		J49	TRS928		
		-	-	Structural Class I		
New Submission	4752		1188-37-0	N-Acetyl glutamate		
New Submission	4738		16869-42-4	Glutamyl-2-aminobutyric acid		
New Submission	4739		38837-71-7	Glutamyl-norvalyl-glycine		
New Submission	4740		71133-09-0	Glutamyl-norvaline		
	TETRA	IYDROFU	RAN AND FUR	ANONE DERIVATIVES	J50	TRS928
				Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4101		1440-67-0	2,5-Dimethyl-3(2H)-furanone		
Submitted at 43 <sup>rd</sup> CCFA	4104		65330-49-6	2,5-Dimethyl-4-ethoxy-3(2H)-furanone		
			1	Structural Class III		
Submitted at 43 <sup>rd</sup> CCFA	4176		3511-32-8	5-Methyl-3(2H)-furanone		
Submitted at 43 <sup>rd</sup> CCFA	4546		39156-54-2	Ethyl 2,5-dimethyl-3-oxo-4(2H)-furyl carbonate		
Submitted at 43 <sup>rd</sup> CCFA	4070		36871-78-0	4-Acetyl-2,5-dimethyl-3(2H)-furanone		

History	FEMA No	JECFA No	CAS	Principle Name	Group No	TRS No
	PHENY	L-SUBSTIT S	UTED ALIPHA	ATIC ALCOHOLS AND RELATED ALDEHYDES AND	J51	TRS928
				Structural Class II		
New Submission	4758		20921-04-4	Ethyl 3-(2-hydroxyphenyl)propanoate		
New Submission	4194		26643-92-5	(+/-) 2-Phenyl-4-methyl-2-hexenal		
	MALTOL AND RELATED SUBSTANCES				J52	TRS934
				Structural Class II		
Submitted at 43 <sup>rd</sup> CCFA	4534		852997-28-5	Ethyl maltol isobutyrate		
	MISCELLANEOUS NITROGEN-CONTAINING SUBSTANCES				J56	
				Structural Class III		
New Submission	4766		1160112-20- 8	3-[3-(2-lsopropyl-5-methylcyclohexyl)-ureido]-butyric acid ethyl ester		
New Submission	4774		1359963-68- 0	4-Amino-5-(3-(isopropylamino)-2,2-dimethyl-3- oxopropoxy)-2-methylquinoline-3-carboxylic acid		
	ALIPHATIC AND AROMATIC AMINES AND AMIDES			J58	TRS934 TRS947 TRS960	
				Structural Class III		
New Submission	4741		851670-40-1	N1-(2,3-Dimethoxybenzyl)-N2-(2-(pyridin-2-yl)ethyl) oxalamide		
New Submission	4751		851669-60-8	(R)-N-(1-Methoxy-4-methylpentan-2-yl)-3,4- dimethylbenzamide		
New Submission	4773		125187-30-6	(E)-N-[2-(1,3-benzodioxol-5-yl)ethyl]-3-(3,4- dimethoxyphenyl)prop-2-enamide		

#### CONSEIL EUROPÉEN DE L'INDUSTRIE CHIMIQUE (CEFIC)

#### FORM ON WHICH INFORMATION ON THE COMPOUND TO BE EVALUATED BY JECFA IS PROVIDED

In completing this form, only brief information is required. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

Name of Compound(s):	Magnesium stearate / INS 470(iii)
<b>Question(s) to be answered by JECFA</b> (kindly provide a brief justification of the request in case of re-evaluations)	Safety assessment and establishment or specifications

#### 1. Proposal for inclusion submitted by:

CEFIC - The European Oleochemicals and Allied Products Group (APAG) Av. E. Van Nieuwenhuyse 4 / box 1 B - 1160 Brussels

#### 2. Name of compound; trade name(s); chemical name(s):

This product is a compound of magnesium with a mixture of solid organic acids obtained from edible sources and consists chiefly of variable proportions of magnesium stearate and magnesium palmitate.

IUPAC name	Magnesium octadecanoate		
Common name	Magnesium stearate		
CAS number	<u>557-04-0;</u> 91031-63-9		
EINECS number	209-150-3; 292-967-2		
Other names	Magnesium distearate, Dibasic magnesium stearate,		
	Fatty acids, C16-18 magnesium salts		
Molecular mass	591.27 g/mol (magnesium stearate); 535.14 g/mol (magnesium palmitate)		
Molecular formula	$Mg(C_{18}H_{35}O_2)_2$ (magnesium stearate); $Mg(C_{16}H_{31}O_2)_2$ (magnesium palmitate)		
Molecular structure (magnesium stearate)			
	Mg <sup>2+</sup>		
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
Molecular structure (magnesium palmitate)			
	Mg <sup>2+</sup>		
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		

#### 3. Names and addresses of basic producers:

European Oleochemicals and Allied Products Group (APAG), representing the basic producers Cédric Delveaux

Av. E. van Nieuwenhuyse, 4, 1160 Brussels Tel. 32-26767304 Fax. 32-26767347 e-mail:cde@cefic.be / <u>www.cefic.org</u>

#### 4. Has the manufacturer made a commitment to provide data?

Yes

#### 5. Identification of the manufacturer that will be providing data:

APAG on behalf of the basic producers: Baerlocher GmbH / Germany Faci SpA / Italy Peter Greven GmbH & Co. KG / Germany S.o.g.i.s Industria Chimica SpA / Italy Unión Deriván SA / Spain

#### 6. Justification for use:

Magnesium stearate has for over 80 years been an essential technological additive for the production of food supplement and confectionery compressed tablets.

The magnesium stearate is commonly used in tablet technology as, when added to the powder before compression, it acts as a lubricant and assists in the ejection of the tablet from the punch and die. It prevents parts of the tablet sticking to the punches. This function is essential with today's high speed tablet presses as debris build-up on the punches and dies can cause serious and expensive damage. The magnesium stearate also provides a smooth surface to the tablet.

Magnesium stearate has become the additive of choice by tablet manufacturers worldwide and it has been estimated that it is used in around 70% of all food supplement tablets produced and in a similarly high percentage of confectionery tablets. Over the years, a number of alternative substances have been tried but none appears to function as effectively as magnesium stearate.

Magnesium stearate is also used as a emulsifier in rusks and baking powder. Furthermore it improves the flowability and continuity with its anti-caking effect in certain hydrophobic powdered foods (e.g. spices and herbs) to extend the shelf life of these powders.

0.5-1.0 wt%
0.05-1.0 wt%
0.05-1.0 wt%
0.05-1.0 wt%

7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

Magnesium stearate is mainly used as a food additive in the following categories:

General Standard on Food Additives / Food	Proposed food uses	Use level (mg/kg)
Category		
05.3: <u>Chewing gum (05.3)</u>	Chewing gums	5000-10'000
13.6: Food supplements (13.6)	Food supplements in	500-10'000
	the shape of tablets	
05.2: Confectionery including hard and soft candy,	Hard candies, dragees	5000-10'000
nougats, etc.		
12.2.1: Herbs and spices	Spice, Herb	500-10'000
07.0: Bakery wares	Rusks, baking powder	500-10'000

- 8. Is the compound currently used in food that is legally traded in more than one country? (please identify the countries); or, has the compound been approved for use in food in one or more country? (please identify the countries)
  - Europe: Magnesium stearate, included in E470b Magnesium salts of Fatty Acids, can be generally
    used as additive in foodstuffs (except in unprocessed foods and foods for which the use of additives is
    prohibited) with no specific maximum level (quantum satis) as determined by Regulation (EC) No.
    1333/2008 on food additives.
  - USA: magnesium stearate is used in food with no limitation other than current good manufacturing practice. The affirmation of this ingredient as generally recognized as safe (GRAS) as a direct human food ingredient is based upon the following current good manufacturing practice conditions of use: (1) The ingredient is used as a lubricant and release agent; a nutrient supplement; and a processing aid as defined (2) The ingredient is used in foods at levels not to exceed current good manufacturing practice (CFR, Title 21 I, B, Sec. 184.1440).
  - Codex Alimentarius: "Magnesium salts of fatty acids" had been previously included in the INS number 470. An Acceptable Daily Intake for its use in food has not been allocated by the 29<sup>th</sup> meeting of JECFA since there were no food uses reported to JECFA at that time (WHO TRS 733). Their deletion from the Codex International Numbering System had been proposed at the 42nd Session of the Codex Committee on Food Additives, 2010. The International Alliance of Dietary/Food Supplement Associations (IADSA) offered technological justification for not deleting this additive and the CCFA assigned therefore the INS number 470(iii) at the 43rd Session in 2011.

Magnesium stearate is also listed in the *Inventory of Substances Used as Processing Aids*, specifically as an antifoam agent, an anticaking agent and a lubricant.

#### 9. List of data available

#### Toxicological data

(i) Metabolic and pharmacokinetic studies

Yes

(ii) Short-term toxicity, long-term toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies

Yes

(iii) Epidemiological and/or clinical studies and special considerations

No

#### (iv) Other data

Yes

Salts of fatty acids have already been assessed by JECFA as well as magnesium (use limited by laxative effects) and stearate/palmitate (ADI *not specified*) separately.

All available information on magnesium, stearate and palmitate will be submitted.

#### Technological data

(i) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce)

Yes

Specifications for magnesium stearate based on Salts of Fatty Acids (33<sup>rd</sup> JECFA 1988), Magnesium Salts of Fatty Acids (E 470b, Commission Regulation (EU) Nr. 231/2012), Magnesium Stearate (Food Chemicals Codex, seventh edition) and Pharm. Eur. (07/2010:0229 corrected 7.4) will be provided.

(ii) Technological and nutritional considerations relating to the manufacture and use of the listed compound

Yes

#### Intake assessment data

(i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used

Yes

(ii) Estimation of dietary intakes based on food consumption data for foods in which the compound may be used.

Yes

#### Other information as necessary

#### 10.Date on which data could be submitted to JECFA:

November 2013

#### FORM ON WHICH INFORMATION ON THE COMPOUND TO BE EVALUATED BY JECFA IS PROVIDED

In completing this form, only brief information is required. The form may be retyped if more space is needed under any one heading provided that the general format is maintained.

Name of Compound(s):	Citiric Acid / INS 330
<b>Question(s) to be answered by JECFA</b> (kindly provide a brief justification of the request in case of re-evaluations)	Revision of Oxalate test method for citric acid

#### 1. Proposal for inclusion submitted by:

CEFIC - The European Citric Acid Manufacturers Association (ECAMA) Av. E. Van Nieuwenhuyse 4 / box 1 B - 1160 Brussels

#### 2. Name of compound; trade name(s); chemical name(s):

Citric Acid (INS 330)

#### 3. Names and addresses of basic producers:

European Citric Acid Manufacturers Association (ECAMA), representing the basic producers Marc Vermeulen Av. E. van Nieuwenhuyse, 4, 1160 Brussels Tel. 32-26767446 Fax. 32-26767359 e-mail:mve@cefic.be / www.cefic.org

#### 4. Has the manufacturer made a commitment to provide data?

Yes

#### 5. Identification of the manufacturer that will be providing data:

European Citric Acid Manufacturers Association (ECAMA), representing the basic producers Marc Vermeulen Av. E. van Nieuwenhuyse, 4, 1160 Brussels Tel. 32-26767446

Fax. 32-26767359 e-mail:mve@cefic.be / www.cefic.org

#### 6. Justification for use:

Not applicable

7. Food products and food categories within the GSFA in which the compound is used as a food additive or as an ingredient, including use level(s):

Not applicable

8. Is the compound currently used in food that is legally traded in more than one country? (please identify the countries); or, has the compound been approved for use in food in one or more country? (please identify the countries)

Not applicable

9. List of data available

#### Toxicological data

Not applicable

#### Technological data

Not applicable

#### Intake assessment data

Not applicable

#### Other information as necessary

Laboratory data with the test results using the JECFA method for oxalate testing.

#### 10. Date on which data could be submitted to JECFA:

March 2013

#### INTERNATIONAL SPECIAL DIETARY FOODS INDUSTRIES (ISDI)

Information on Citric Acid Esters Of Mono- and Diglycerides Of Fatty Acids (Ins 472c) Requested for JECFA Evaluation for Use In Infant Formula and Formulae for Special Medical Purposes Intended For Infants

#### 1. Proposal for inclusion submitted by:

International Special Dietary Foods Industries (ISDI)

#### 2. Name of compound; trade name(s); chemical name(s):

Citric acid esters of mono- and diglycerides of fatty acids, citroglycerides, mono- and diglycerides of fatty acids esterified with citric acid, CITREM, CAEM;

Trade name is GRINDSTED® CITREM.

INS No. 472c; CAS# 97593-31-2.; E 472c

#### 3. Names and addresses of basic producers (of the infant formula):

Danone Trading BV WTC Schiphol Airport Tower E Schiphol Boulevard 105 1118 BG Schiphol Airport The Netherlands

#### 4. Has the manufacturer made a commitment to provide data?

Yes.

#### 5. Identification of the manufacturer that will be providing data (*Please indicate contact person*):

Aaron O'Sullivan Manager, Global Regulatory Affairs Danone Medical Nutrition WTC Schiphol Airport Tower E Schiphol Boulevard 105 1118 BG Schiphol Airport The Netherlands Phone: +31 20 456 9000 Fax: +31 20 456 8000 E-mail: <u>aaron.osullivan@nutricia.com</u>

#### 6. Justification for use:

Citric acid esters of mono- and diglycerides of fatty acids can be used as an emulsifier in infant formula, follow on formula and in infant FSMP formula manufactured with amino acids and hydrolyzed proteins. Formulations manufactured with amino acids and hydrolyzed proteins have different hydrophobic/hydrophilic characteristics and lower emuslifying capacity than products based on whole protein. Citric acid esters of mono- and diglycerides of fatty acids improves the stability and organoleptic properties of products containing (partially) hydrolysed proteins, peptides or amino acids.

Formulae for special medical purposes for infants may also have other ingredients, characteristics or uses that make it technologically more difficult to maintain a stable product that does not separate after reconstitution such as high medium chain triglyceride content, absence of protein or requirement to feed over a period of time by enteral tube.

A range of emulsifiers is therefore a technological requirement for these formulas to ensure both palatability and prevention of separation of the formula after reconstitution.

### 7. Food products and food categories within the GSFA in which the compound is used, including use level(s):

Proposed use is as an emulsifier in food category 13.1 infant formulae, follow-on formulae and formulae for special medical purposes for infants. Proposed use levels are 0.75 g/100 ml in infant formula powder, as consumed, and 0.9 g/100 ml in ready-to-feed liquid formula. The maximum use level of Citric acid esters of mono- and diglycerides of fatty acids in formula is therefore up to 9 g/litre, as consumed.

## 8. Is the compound currently used in food that is legally traded in more than one country? (please identify the countries); or, has the compound been approved for use in 2 or more countries (please identify the countries)?

Citric acid esters of mono- and diglycerides of fatty acids (INS 472c) is permitted and currently used in infant formula, follow-on formulas and FSMP intended for infants in several countries, as described hereafter. Those countries represent a significant percentage of the infant formula commercialization markets across the globe.

Specifically in Infant Formulas (including exempted-formulas in the US) INS 472c is permitted in the USA and Canada. In the EU, Switzerland, Turkey, Mexico, Russia, Brazil and China, Citric acid esters of monoand diglycerides of fatty acids is permitted in infant formula, follow-on formula and infant foods for special medical purposes. In Australia, Citric acid esters of mono- and diglycerides of fatty acids is permitted in infant formula products for specific dietary use based on protein substitutes.

Other countries (e.g. Chile, Singapore, Saudi Arabia and other countries in the Middle East) granted permission to commercialize formulas for infants and young children with INS 472c after a careful evaluation of justification of use and safety data.

CODEX STAN 74-1981, rev 2006, gives provisions to the use of INS 472c in processed cereal-based products for infants and young children (6months onwards) up to the limit of 0.5g/100g.

#### 9. List of data available (please check, if available):

#### Toxicological data

- $\sqrt{(i)}$  Metabolic
- $\sqrt{(ii)}$  Short-term toxicity

X (iii) Epidemiological and/or clinical studies and special considerations

 $\sqrt{(iv)}$  Other data

 $\sqrt{a}$  analytical methodology

#### Technological data

 $\sqrt{}$  (i) Specifications for the identity and purity of the listed compounds (specifications applied during development and toxicological studies; proposed specifications for commerce)

 $\boldsymbol{\checkmark}$  (ii) Technological and nutritional considerations relating to the manufacture and use of the listed compound

#### Intake assessment data

 $\sqrt{}$  (i) Levels of the listed compound used in food or expected to be used in food based on technological function and the range of foods in which they are used

 $\sqrt{\rm (ii)}$  Estimation of dietary intakes based on food consumption data for foods in which the compound may be used

#### Other information as necessary

#### 10. Date on which data could be submitted to JECFA:

December 1, 2013