codex alimentarius commission ${f E}$



Food and Agriculture Organization of the United Nations



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Agenda Item 8

CX/FA 11/43/17 September 2010

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Forty-third Session

Xiamen (Fujian province), China, 14 - 18 March 2011

SPECIFICATIONS FOR THE IDENTITY AND PURITY OF FOOD ADDITIVES ARISING FROM THE 73RD JECFA MEETING

Governments and international organizations in Observer status with the Codex Alimentarius Commission wishing to submit comments at Step 3 on the following subject matter are invited to do so **no later than 31 January 2011** as follows: Secretariat, Codex Committee on Food Additives, National Institute of Nutrition and Food Safety, China CDC, 7 Panjiayuan Nanli, Chaoyang District, Beijing 100021, China (Telefax: + 86 10 67711813, E-mail: <u>secretariat@ccfa.cc</u> *preferably*), with a copy to the Secretariat, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, Viale delle Terme di Caracalla, 00153 Rome, Italy (Telefax: +39 06 5705 4593; E-mail: <u>Codex@fao.org</u> - *preferably*).

BACKGROUND

Specifications for 186 food additives (7) and flavourings (179) were discussed and prepared or 1. reviewed at the 73rd JECFA meeting (Geneva, June 2010) and the resulting monographs are available (in English only) on JECFA Online Edition of: "Combined Compendium of Food Additive Specifications" http://www.fao.org/ag/agn/jecfa-additives/search.html?lang=en and "Specifications for Flavourings" http://www.fao.org/ag/agn/jecfa-flav/search.html . Monographs resulting from the 73rd JECFA meeting will be published as FAO JECFA Monographs 10, FAO, Rome, 2010. The publication will be available to download pdf-document at the FAO **JECFA** website as at: http://www.fao.org/ag/agn/agns/jecfa_output_en.asp .

2. In addition, revision to correct certain food additive and flavouring specifications were made by the JECFA Secretariat.

3. These specifications cover:

| F | ood Additives | Flavourings |
|---------------------------|---------------|-------------|
| New: | 1 | 177 |
| Revised: | 6 | 2 |
| Revised – not republished | 8 | 1 |
| Full: | 14 | 180 |
| Tentative: | 1 | 0 |
| Withdrawn: | 1 | 0 |

4. The CCFA is being asked to review these specifications, in particular those designated as "Full", with a view to recommending their adoption by the Commission as Codex Specifications, taking into account comments received.

5. The 6 food additives given full (new and revised) specifications at the 73rd JECFA are listed in the Annex. Separate lists of the food additives for which specifications were designated as tentative, withdrawn or revised without being republished are also given in the Annex with explanations.

6. Minor editorial revisions and corrections were made to the limits and information relating to metals and arsenic as published in FAO JECFA Monographs 1 (2005,2006), Combined Compendium of Food Additive Specifications for 8 food additives. The corrected limits and information correspond to those agreed by the JECFA and published in the reports of relevant meetings (57th, 59th and 63rd meetings of JECFA). These food additives are listed in the Annex.

7. All of the 177 new flavourings reviewed during the 73rd JECFA meeting were given full specifications (JECFA No. 1898-2042, 2044-2068 and 2070-2076). The JECFA names are listed by JECFA number in the Annex. The reason that the flavourings assigned JECFA No. 2043 and No. 2069 is that the substances did not fit in the chemical classes in which they had been suggested to be included.

8. The full specifications prepared for the flavourings with JECFA Nos 1914, 1931, 1939, 1941, 1943, 1944, 1973, 1988, 2005, 2007, 2010, 2011 and 2046, by the JECFA include a statement that the safety evaluations for these substances had not been completed at the 73rd JECFA meeting due to lack of data. The CCFA may consider whether or not to adopt the specifications for these flavourings.

9. The specifications for flavouring substances 4-Carvomenthenol (JECFA No. 432) and 5,6,7,8-Tetrahydroquinoxaline (JECFA No. 952) were revised.

10. Finally, the C.A.S. number, name and synonyms for the flavouring cis- and trans linalool oxide (JECFA No. 1454) were corrected in the On-line edition of the JECFA flavouring specifications, as the name in the specifications, published in Food And Nutrition Paper 52., Add. 12, did not correspond to those in the JECFA report (63rd meeting of JECFA, WHO Technical Report Series No 928, 2005, p. 108) and to the substance that had been evaluated. The correct C.A.S. number for the racemic mixture of linalool oxide is 60047-17-8. The Committee is invited to adopt the revised specifications for cis- and trans-linalool oxide.

Annex

SPECIFICATIONS RESULTING FROM THE 73RD JECFA

FOOD ADDITIVES

SPECIFICATIONS DESIGNATED AS <u>FULL</u> AT THE 73RD JECFA (FAO JECFA Monographs 10, Rome, 2010):¹

Activated carbon (R) Cassia gum (R) (INS 427) Indigotine (R) (INS 132) Steviol glycosides (R) (INS 960) Sucrose esters of fatty acids (R) (INS 473) Titanium dioxide (R) (INS 171)

SPECIFICATIONS DESIGNATED AS <u>TENTATIVE</u> AT THE 73RD JECFA (FAO JECFA Monographs 10, Rome, 2010):¹

Sucrose monoesters of lauric, palmitic or stearic acid (N, T)

SPECIFICATIONS <u>WITHDRAWN</u> BY THE 73RD JECFA:

Annatto extract (oil-processed bixin)

Insufficient information received to allow removal of the tentative designation.

SPECIFICATIONS REVISED WITHOUT BEING REPUBLISHED (available in the electronic version of the specifications at the FAO JECFA website):

Carotenes (Algae) (INS 160a(iv)) Carotenes (Vegetable) (INS 160a(ii)) Calcium silicate (INS 552) Ferric ammonium citrate (INS 381) Grape skin extract (INS 163(ii)) Potassium carbonate (INS 501) Trimagnesium phosphate (INS 343(iii) Trisodium phosphate (INS 339(iii)

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⁽N) new specification; (R) revised specification.

FLAVOURINGS

JECFA NAMES FOR FLAVOURINGS GIVEN FULL SPECIFICATIONS BY THE 73RD JECFA

New specifications

| 1898 | Methyl dihydrojasmonate |
|-------------------|---|
| 1899 | cis-4-(2,2,3-Trimethylcyclopentyl)butanoic acid |
| 1900 | Mixture of 2,4-, 3,5- and 3,6-Dimethyl-3-cyclohexenylcarbaldehyde |
| 1901 | Perillaldehyde propyleneglycol acetal |
| 1902 | (+/-)-cis- and trans-1,2-Dihydroperillaldehyde |
| 1903 | d-Limonen-10-ol |
| 1904 | p-Menthan-7-ol |
| 1905 | p-Menth-1-en-9-ol |
| 1906 | 1,3-p-Menthadien-7-al |
| 1907 | cis- and trans-2-Heptylcyclopropanecarboxylic acid |
| 1908 | (+/-)-cis- and trans-2-Methyl-2-(4-methyl-3- |
| | pentenyl)cyclopropanecarbaldehyde |
| 1909 | Methyl octyl sulfide |
| 1910 | Methyl 1-propenyl sulfide |
| 1911 | Di-(1-propenyl) sulfide (mixture of isomers) |
| 1912 | Ethyl 2-hydroxyethyl sulfide |
| 1913 | 2-(Methylthio)ethyl acetate |
| 1914 | 3-(Methylthio)propyl mercaptoacetate |
| 1915 | Ethyl 3-(methylthio)-(2Z)-propenoate |
| 1916 | Ethyl 3-(methylthio)-(2E)-propenoate |
| 1917 | Ethyl 3-(methylthio)-2-propenoate (mixture of isomers) |
| 1918 | 4-Methyl-2-(methylthiomethyl)-2-pentenal |
| 1919 | 4-Methyl-2-(methylthiomethyl)-2-hexenal |
| 1920 | 5-Methyl-2-(methylthiomethyl)-2-hexenal |
| 1921 | Butyl beta-(methylthio)acrylate |
| 1922 | Ethyl 3-(ethylthio)butyrate |
| 1923 | 2-Oxothiolane |
| 1924 | Dodecanethiol |
| 1925 | 2-Hydroxyethanethiol |
| 1926 | 4-Mercapto-4-methyl-2-hexanone |
| 1927 | 3-Mercapto-3-methylbutyl isovalerate |
| 1928 | (+/-)-Ethyl 3-mercapto-2-methylbutanoate |
| 1929 | 3-Mercaptohexanal |
| 1930 | Diisoamyl disulfide |
| 1931 | Bis(2-methylphenyl) disulfide |
| 1932 | Butyl propyl disulfide |
| 1933 | di-sec-Butyl disulfide |
| 1934 | Diisoamyl trisulfide |
| 1935 | Methyl 2-methylphenyl disulfide |
| 1936 | 3-Mercaptopropionic acid |
| 1937 | Methyl isobutanethioate |
| 1938 | 2-Ethylhexyl 3-mercaptopropionate |
| 1939 | Butanal dibenzyl thioacetal |
| 1940 | Methional diethyl acetal |
| 1940 | 3-(Methylthio)propyl hexanoate |
| 1942 | 1-(3-(Methylthio)-butyryl)-2,6,6-trimethylcyclohexene |
| 1942 | (+/-)-cis- and trans-2-Pentyl-4-propyl-1,3-oxathiane |
| 1943 | 2-Pentenyl-4-propyl-1,3-oxathiane (mixture of isomers) |
| 1944 | Hydroxyacetone |
| 17 4 J | 11yuloxyactione |

| 1946 | Propyl pyruvate |
|------|---|
| 1940 | Methyl 3-hydroxybutyrate |
| 1948 | Dodecyl lactate |
| 1949 | (+/-)-Ethyl 3-hydroxy-2-methylbutyrate |
| 1950 | Hexadecyl lactate |
| 1950 | Methyl 3-acetoxy-2-methylbutyrate |
| 1951 | 1-Hydroxy-4-methyl-2-pentanone |
| | |
| 1953 | Ethyl 2-acetylhexanoate |
| 1954 | 3-Isopropenyl-6-oxoheptanoic acid |
| 1955 | Ethyl 3-hydroxyoctanoate |
| 1956 | Methyl 3-acetoxyoctanoate |
| 1957 | 5-Oxooctanoic acid |
| 1958 | Ethyl 2-acetyloctanoate |
| 1959 | Ethyl 5-acetoxyoctanoate |
| 1960 | 5-Oxodecanoic acid |
| 1961 | Ethyl 5-oxodecanoate |
| 1962 | Ethyl 5-hydroxydecanoate |
| 1963 | 5-Oxododecanoic acid |
| 1964 | Dimethyl adipate |
| 1965 | Dipropyl adipate |
| 1966 | Diisopropyl adipate |
| 1967 | Diisobutyl adipate |
| 1968 | Dioctyl adipate |
| 1969 | Ethyl acetoacetate ethyleneglycol ketal |
| 1970 | Methyl levulinate |
| 1971 | Propyl levulinate |
| 1972 | Isoamyl levulinate |
| 1973 | Ethyl levulinate propyleneglycol ketal |
| 1974 | cis-3-Hexenyl acetoacetate |
| 1975 | Hydroxycitronellal propyleneglycol acetal |
| 1976 | Propyleneglycol diacetate |
| 1977 | Mixture of 6-(5-decenoyloxy)decenoic acid and 6-(6- |
| | decenoyloxy)decenoic acid |
| 1978 | Propyleneglycol dipropionate |
| 1979 | Propyleneglycol monobutyrate (mixture of isomers) |
| 1980 | Propyleneglycol dibutyrate |
| 1981 | Propyleneglycol mono-2-methylbutyrate (mixture of isomers) |
| 1982 | Propyleneglycol di-2-methylbutyrate |
| 1983 | Propyleneglycol monohexanoate (mixture of isomers) |
| 1984 | Propyleneglycol dihexanoate |
| 1985 | Propyleneglycol dioctanoate |
| 1985 | 2-Oxo-3-ethyl-4-butanolide |
| 1980 | Ethyl 5-hydroxyoctanoate |
| 1987 | Mixture of Isopropylideneglyceryl 5-hydroxydecanoate and delta- |
| 1900 | decalactone |
| 1989 | 5-Pentyl-3H-furan-2-one |
| 1989 | |
| | 5-Hydroxy-4-methylhexanoic acid delta-lactone |
| 1991 | Isoambrettolide |
| 1992 | 7-Decen-4-olide |
| 1993 | 9-Decen-5-olide |
| 1994 | 8-Decen-5-olide |
| 1995 | Orin lactone |
| 1996 | 9-Dodecen-5-olide |
| 1997 | 9-Tetradecen-5-olide |

| 1998 | gamma-Octadecalactone |
|------|--|
| 1998 | delta-Octadecalactone |
| 2000 | |
| | 4-Hydroxy-2-butenoic acid gamma-lactone |
| 2001 | 2-Nonenoic acid gamma-lactone |
| 2002 | 4-Hydroxy-2,3-dimethyl-2,4-nonadienoic acid gamma-lactone |
| 2003 | Choline chloride |
| 2004 | 3-(Methylthio)propylamine |
| 2005 | N-Ethyl-2,2-diisopropylbutanamide |
| 2006 | Cyclopropanecarboxylic acid (2-isopropyl-5-methyl-cyclohexyl)- |
| 2007 | amide |
| 2007 | (+/-)-N-Lactoyl tyramine |
| 2008 | N-(2-(Pyridin-2-yl)ethyl)-3-p-menthanecarboxamide |
| 2009 | N-p-Benzeneacetonitrile menthanecarboxamide |
| 2010 | N-(2-Hydroxyethyl)-2,3-dimethyl 2-isopropylbutanamide |
| 2011 | N-(1,1-Dimethyl-2-hydroxyethyl)-2,2-diethylbutanamide |
| 2012 | 4-Propenylphenol |
| 2013 | 2,4,6-Trimethylphenol |
| 2014 | Sodium 3-methoxy-4-hydroxycinnamate |
| 2015 | Guaiacol butyrate |
| 2016 | Guaiacol isobutyrate |
| 2017 | Guaiacol propionate |
| 2018 | 4-(2-Propenyl)phenyl-beta-D-glucopyranoside |
| 2019 | Phenyl butyrate |
| 2020 | Hydroxy(4-hydroxy-3-methoxyphenyl)acetic acid |
| 2021 | 1-(4-Hydroxy-3-methoxyphenyl)-decan-3-one |
| 2022 | 3-(4-Hydroxy-phenyl)-1-(2,4,6-trihydroxy-phenyl)-propan-1-one |
| 2023 | Magnolol |
| 2024 | 5,7-Dihydroxy-2-(3-hydroxy-4-methoxy-phenyl)-chroman-4-one |
| 2025 | Dimethylbenzyl carbinyl crotonate |
| 2026 | Dimethylbenzyl carbinyl hexanoate |
| 2027 | Caryophyllene alcohol |
| 2028 | Cubebol |
| 2029 | (-)-Sclareol |
| 2030 | (+)-Cedrol |
| 2031 | alpha-Bisabolol |
| 2032 | 3-Methyl-2,4-nonedione |
| 2033 | Acetoin propyleneglycol ketal |
| 2034 | Mixture of 3-Hydroxy-5-methyl-2-hexanone and 2-Hydroxy-5- |
| | methyl-3-hexanone |
| 2035 | 3-Hydroxy-2-octanone |
| 2036 | 2,3-Octanedione |
| 2030 | 4,5-Octanedione |
| 2038 | (+/-)-2-Hydroxypiperitone |
| 2038 | 1,1'-(Tetrahydro-6a-hydroxy-2,3a,5-trimethylfuro[2,3-d]-1,3- |
| 2037 | dioxole-2,5-diyl)bis-ethanone |
| 2040 | 4-Hydroxyacetophenone |
| 2040 | 3-Hydroxy-4-phenylbutan-2-one |
| 2041 | 2-Methoxyacetophenone |
| 2042 | 2-Methylacetophenone |
| 2044 | |
| | 2-Hydroxy-5-methylacetophenone |
| 2046 | Dihydrogalangal acetate |
| 2047 | 2,3,3-Trimethylindan-1-one |
| 2048 | 4-(3,4-Methylenedioxyphenyl)-2-butanone |
| 2049 | 2-(trans-2-Pentenyl)cyclopentanone |

| 2050 | 2-Cyclopentylcyclopentanone |
|------|---|
| 2051 | Cyclohexanone diethyl ketal |
| 2052 | 2-Cyclohexenone |
| 2053 | 3,3,5-Trimethylcyclohexyl acetate |
| 2054 | 2,6,6-Trimethyl-2-hydroxycyclohexanone |
| 2055 | Cyclotene propionate |
| 2056 | Cyclotene butyrate |
| 2057 | 4-(2-Butenylidene)-3,5,5-trimethylcyclohex-2-en-1-one (mixture of |
| | isomers) |
| 2058 | 4-Hydroxy-4-(3-hydroxy-1-butenyl)-3,5,5-trimethyl-2-cyclohexen- |
| | 1-one (mixture of isomers) |
| 2059 | (-)-8,9-Dehydrotheaspirone |
| 2060 | (+/-)-2,6,10,10-Tetramethyl-1-oxaspiro[4.5]deca-2,6-dien-8-one |
| 2061 | Benzyl hexanoate |
| 2062 | o-Anisaldehyde |
| 2063 | Prenyl benzoate |
| 2064 | Benzyl levulinate |
| 2065 | 4-Methylbenzyl alcohol |
| 2066 | Benzyl nonanoate |
| 2067 | 4-Methylbenzaldehyde propyleneglycol acetal |
| 2068 | 2-Ethylhexyl benzoate |
| 2070 | (+/-)-Octan-3-yl formate |
| 2071 | (R)-(-)-1-Octen-3-ol |
| 2072 | 2-Pentyl 2-methylpentanoate |
| 2073 | 3-Octyl butyrate |
| 2074 | 2-Decanone |
| 2075 | 6-Methyl-5-hepten-2-one propyleneglycol acetal |
| 2076 | 2-Nonanone propyleneglycol acetal |

Revised specifications

| 432 | 4-Carvomenthenol |
|------|-------------------------------|
| 952 | 5,6,7,8-Tetrahydroquinoxaline |
| 1454 | cis- and trans-Linalool oxide |

NO FLAVOURINGS WERE GIVEN TENTATIVE SPECIFICATIONS BY THE 73RD JECFA