Parma, 25 September 2009

MINUTES OF THE 6th PLENARY MEETING OF THE SCIENTIFIC PANEL ON FOOD CONTACT MATERIALS, ENZYMES, FLAVOURINGS AND PROCESSING AIDS (CEF)

Held in Parma on 12-14 May 2009

Adopted on 17 June 2009

AGENDA:

MINUTES OF THE 6th PLENARY MEETING OF THE SCIENTIFIC PANEL ON FOOD CONTACT MATERIALS, ENZYMES, FLAVOURINGS & PROCESSING AIDS (CEF)

PARTICIPANTS

Panel Members:

Arturo Anadón, David Bell (1st and 2nd days), Mona-Lise Binderup, Wilfried Bursch (2nd and 3rd days), Laurence Castle, Riccardo Crebelli, Karl-Heinz Engel, Roland Franz, Nathalie Gontard, Thomas Haertlé, Trine Husøy, Klaus-Dieter Jany, Catherine Leclercq (1st and 2nd days), Jean-Claude Lhuguenot, Wim C. Mennes, Maria Rosaria Milana, Karla Pfaff, Kettil Svensson, Fidel Toldrá (1st and 2nd days), Rosemary Waring, Detlef Wölfle.

Invited Experts, hearing experts:

Rainer Gütler, David Gott, Iona Pratt (for item 8).

European Commission:

Sirkku Heinimaa

EFSA:

Scientific staff, EFSA Unit: Alexandre Feigenbaum, Dimitrios Spyropoulos, Anne Theobald, Eric Barthélémy, Marika Collin, Cristina Croera, Kim Rygaard Nielsen/

Lucilla Gregoretti (FEEDAP Unit, for item 6)

Administrative staff: Hanne Pedersen, Marco Lannutti.

1. WELCOME; APOLOGIES FOR ABSENCE

The Chair welcomed the Members. Apologies for parts of the meeting were noted.

2. ADOPTION OF THE AGENDA

The agenda was adopted.

3. DECLARATIONS OF INTEREST

Benzophenone and 4-methylbenzophenone (item 7.2)

♦ D. Wölfle, M.R. Milana, K. Pfaff and K. Svensson have advised their risk management Authorities on the issue.

♦ M.R. Milana declared that her Institute is conducting monitoring on benzophenone and 4-methylbenzophenone for her government.

♦ L. Castle declared that his laboratory had conducted the analytical work of the FSA survey in 2000 and 2006 on benzophenone and 4-hydroxybenzophenone.

♦ R. Franz declared that his Institute has performed analytical measurements on benzophenone and 4-methylbenzophenone for industries to test compliance of articles with the regulation.

In accordance with EFSA's Policy on Declarations of Interests and implementing documents thereof, and taking into account the specific matters discussed at the meeting in question, the interests above were not deemed to represent a conflict of interest for the experts concerned.

4. MATTERS ARISING FROM THE 5TH PLENARY MEETING, 22-24 MARCH 2009

The minutes of the 5th Plenary meeting were adopted with editorial changes. They can be seen on http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1211902401506.htm.

5. GENERAL INFORMATION FROM THE EFSA, THE COMMISSION AND THE CHAIR

♦**Update from SC:** The Chair informed the Panel on the ongoing work of EFSA's Scientific Committee:

- opinion on transparency in risk assessment
- WG on nanotechnology
- Opinion on animal welfare

♦**Scientific events and conferences of interest to EFSA**

♦**Update on melamine**. Terms of Reference are expected. Panel Members will participate to the Working Group.

6. FLAVOURINGS

6.1. Flavouring group evaluations

According to Regulation 1565/2000 of 18 July 2000.

6.1.1. Flavouring Group Evaluation 81 (FGE.81):

Consideration of hydroxypropenylbenzenes evaluated by JECFA (61st meeting).
EFSA-Q-2008-065
One of the candidate substances is isoeugenol [FL-no: 04.004] (FGE.81, item 6.1.2). The available genotoxicity and carcinogenicity studies on isoeugenol were discussed. The FGE was postponed together with the discussion of FGE.30. It will be addressed in one of the next CEF Plenary meetings.

6.1.2. Flavouring Group Evaluation 30 (FGE.30):

2-Methoxy-4-(prop-1-enyl)phenyl 3-methylbutyrate from chemical group 17
EFSA-Q-2003-173

The candidate substance is 2-methoxy-4-(prop-1-enyl)phenyl 3-methylbutyrate [FL-no: 09.894]. No data on genotoxicity are available for the substance. However, for three supporting substances, there are data from *in vitro* tests and for two supporting substances from *in vivo* assays.

The most relevant supporting substance is isoeugenol [FL-no: 04.004] (FGE.81, Item 6.1.1), which may be formed by hydrolysis of the candidate substance. It was postponed together with the discussion of FGE.81. It will be addressed in one of the next CEF Plenary meetings.

6.1.3. Flavouring Group Evaluation 42 (FGE.42):

Iron containing organic substances from chemical group 30
EFSA-Q-2008-046

Note from the secretariat: this opinion was discussed and adopted. However, due to discussions following the Plenary, the minutes were on hold and the opinion was only finalised at the 9th CEF Plenary meeting (24 September 2009). The Panel then decided that the report of FGE.42 should be included in the minutes of the 9th Plenary.

See the minutes of the CEF 9th Plenary meeting.

6.1.4. Flavouring Group Evaluation 11, Revision 2 (FGE.11Rev2):

Aliphatic dialcohols, diketones, and hydroxyketones from chemical group 10
EFSA-Q-2009-00563
The FGE was postponed.

6.1.5. Flavouring Group Evaluation 80, Revision 1 (FGE.80Rev1):

Consideration of alicyclic, alicyclic-fused and aromatic-fused ring lactones evaluated by JECFA (61st meeting)
EFSA-Q-2009-00559
The FGE was postponed.

6.1.6. Flavouring Group Evaluation 92 (FGE.92):

Aliphatic acyclic diols, triols, and related substances evaluated by JECFA (68th meeting)
EFSA-Q-2009-00557

This consideration deals with six substances evaluated by JECFA [FL-no: 06.077, 06.087, 06.089, 07.090, 09.632 and 09.919].

The Panel concluded that all the six substances are structurally related to the substances evaluated by the EFSA in the Flavouring Group Evaluation 10, Revision 1 (FGE.10Rev1). The Panel agrees with the way the application of the Procedure has been performed by the JECFA for all six substances.

It is considered that on the basis of the default MSDI approach the candidate substances would not give rise to safety concern at the estimated levels of intake arising from their use as flavouring substances.

In order to determine whether the conclusion for the candidate substances can be applied to the material of commerce, it is necessary to consider the available specifications. For five materials of commerce [FL-no: 06.077, 06.087, 06.089, 09.632 and 09.919], the Panel has reservations because of missing information. Stereoisomeric composition has not been provided for the five substances. For [FL-no: 06.077] no identity test and for [FL-no: 09.919], no boiling point has been given.

Adequate specifications are available for one of the materials of commerce [FL-no: 07.090] For this substance, the Panel agrees with the JECFA conclusion "No safety concern at estimated levels of intake as flavouring substances" based on the MSDI approach.

Changes to the text of the Draft Opinion were noted. The Opinion was adopted and will be published on http://www.efsa.europa.eu.

6.1.7. Flavouring Group Evaluation 25, Revision 1 (FGE.25Rev1):

Aliphatic and aromatic hydrocarbons from chemical group 31
EFSA-Q-2009-00565

The discussion was postponed, due to lack of time.

6.1.8. Flavouring Group Evaluation 9, Revision 2 (FGE.09Rev2):

Secondary alicyclic saturated and unsaturated alcohols, ketones and esters containing secondary alicyclic alcohols from chemical group 8 and 30, and an ester of a phenol derivative from chemical group 25.
EFSA-Q-2009-00562

The present Revision of FGE.09, FGE.09Rev2 includes the assessment of one additional candidate substance, carvyl 3-methylbutyrate [FL-no: 09.870], compared to FGE.09Rev1. Therefore, the present FGE.09Rev2 deals with 16 substances.

The additional candidate substance has initially been considered in FGE.212 with respect to genotoxicity, together with other alpha,beta-unsaturated substances. The Panel had concluded that this substance could be evaluated through the Procedure.

It was concluded that, on the basis of the default MSDI approach, 15 of the 16 candidate substances would not give rise to safety concerns at the estimated levels of intake arising from their use as flavouring substances. For the remaining candidate substance, cyclotetradecanone [FL-no: 07.207], it had been emphasized in the first evaluation of FGE.09 that data were needed. These data have still not been provided and the evaluation of this substance was therefore deferred.

In order to determine whether the conclusion for the other candidate substances can be applied to the material of commerce, it is necessary to consider the available specifications. Thus, the final evaluation of the materials of commerce cannot be performed for six substances [FL-no: 09.154, 09.355, 09.520, 09.870, 09.929 and 09.935], pending further information on specifications. Information on chirality for four substances [FL-no: 09.154, 09.520, 09.870 and 09.935] and on composition of mixture for [FL-no: 09.355] has not been provided. For three of these materials, [FL-no: 09.154, 09.929 and 09.935] an identity test is also missing.

Nine substances [FL-no: 02.070, 02.075, 02.135, 02.167, 06.136, 07.203, 09.618, 09.619 and 09.621] would present no safety concern at the levels of intake estimated on the basis of the MSDI approach.

For the data needed for cyclotetradecanone [FL-no: 07.207], please see FGE.09. http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1178620762397.htm

Changes to the text of the Draft Opinion were noted. The Opinion was adopted and will be published on www.efsa.europa.eu.

6.1.9. Flavouring Group Evaluation 93 (FGE.93):

Sulphur containing heterocyclic compounds evaluated by JECFA (68th meeting)
EFSA-Q-2009-00558

The discussion was postponed, due to lack of time.

6.1.10. Flavouring Group Evaluation 15, Revision 2 (FGE.15Rev2):

Aryl-substituted saturated and unsaturated primary alcohol/aldehyde/acid/ester derivatives from chemical group 22
EFSA-Q-2009-00564

The discussion was postponed, due to lack of time.

6.2. Proposal concerning the data required for the risk assessment of flavouring substances

EFSA-Q-2009-00004
Following the discussion, the issue will be raised again in the Working Group.

6.3. Opinion on evaluation of flavourings other than flavouring substances

The discussion was postponed, due to lack of time.

7. FOOD CONTACT MATERIALS

7.1. Evaluation of substances of the 24th list

The draft opinions on the following substances were deferred to the next meeting due to lack of time.

.1	31335	Acids, fatty (C8-C22) from animal or vegetable fats and oils, esters with branched alcohols, aliphatic, monohydric, saturated, primary (C3-C22)
2	31336	Acids, fatty (C8-C22) from animal or vegetable fats and oil, esters with linear alcohols, aliphatic, monohydric, saturated, primary (C1-C22)
.3	31348	Acids, fatty (C8-C22), esters with pentaerythritol
.4	13453	Bis(hydroxyphenyl)methane
.5	71990	Perfluoro[2-(n-propoxy)propanoic acid]
.6	71980	Perfluoro[2-(poly(n-propoxy))propanoic acid]
.7	95500	N,N',N''-Tris(2-methylcyclohexyl)-1,2,3-propane-tricarboxamide

7.2. Benzophenone, 4-hydroxybenzophenone and 4-methylbenzophenone

The draft opinion was discussed, changes were noted and subject to these changes, it was adopted.

The Panel noted that benzophenone causes kidney adenoma in rat, associated with a spectrum of responses including hyperplasia and nephropathy at the lowest dose level of 15 mg/kg/day in a chronic carcinogenicity study. The Panel considered that the non-neoplastic kidney effects observed in the chronic assay were adverse. Benchmark dose (BMD) analyses were applied for the non-neoplastic kidney effects in male rats, and the lower 95% confidence limits of the bench mark dose for a 10% effect (BMDL10) were calculated to be 3.1 to 7.4 mg/kg b.w. per day. The models used in the analysis were consistent, and passed statistical validation. The Panel decided that the BMDL10 value of 3.1 mg/kg b.w. per day was the most appropriate departure point for derivation of the TDI. By applying an uncertainty factor of 100, a TDI of 0.03 mg/kg body weight is derived.

The Panel noted that the SCF has established for benzophenone and 4-hydroxybenzophenone a group TDI of 0.01 mg/kg body weight. The evaluation of the SCF was only based on a metabolism study and on a 90-day oral rat study on benzophenone.

4-Hydroxybenzophenone is one of the two important metabolites of benzophenone. However, the Panel considers that this fact alone, in the absence of supporting data, does not justify the inclusion of 4-hydroxybenzophenone in the same TDI with benzophenone.

Regarding 4-methylbenzophenone, the Panel concluded that short term consumption of contaminated breakfast cereals at current levels should not pose a risk to people. This conclusion is based on the limited exposure data available and read across from the toxicity of the similar substance benzophenone. If the use of 4-methylbenzophenone is to be continued, more data on occurrence of the substance in foods should be provided as well as appropriate toxicity data corresponding to the level of exposure for a full risk assessment.

The full opinion is available through:
http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1211902570801.htm

8. SMOKE FLAVOURINGS

8.1. Draft opinion on Smoke Flavouring Primary Product Scansmoke PB R909

EFSA-Q-2005-259

Due to lack of time the discussion of the draft opinion was postponed.

8.2. Draft opinion on Smoke Flavouring Primary Product Scansmoke SEF7525

EFSA-Q-2005-262

The data on use levels originally provided in June 2005 have been updated by the applicant in April 2009. The Panel drew its conclusions based on the margins of safety calculated with these recent data as according to the applicant they reflect better the actual uses und use levels.

Based on the intake data calculated with the new data provided by the applicant on 24 April 2009 the margin of safety for total dietary exposure (traditionally and non-traditionally smoked food) as compared to the NOAEL of 210 mg/kg bw/day derived from the 90-day toxicity study in rats amounts to 350 and 1050 for the intake estimates based on the upper use levels and to at least 2100 when normal use levels are considered.

When dietary exposure estimates are based on use in only traditionally smoked foods and on the model providing the highest exposure estimates, the margins of safety using the two smoke flavour exposure estimates, SMK-EPIC and SMK-TAMDI, respectively would amount to 2100 based on the upper use levels and to more than 2100 when normal use levels are considered.

The Panel noted that the margin of safety of at least 350 is based on a conservative exposure estimate. Therefore, even though i) these margins of safety are based on a 90-day toxicity study only, ii) data on reproduction and developmental toxicity are absent and iii) long term studies are absent, the Panel concluded that the uses and use levels specified are not of safety concern.

8.3. **Draft opinion on Smoke Flavouring Primary Product SmokeEz Enviro 23**

EFSA-Q-2005-264

The applicant provided updated data on use levels in April 2009 and the Panel drew its conclusions based on the margins of safety calculated with these recent data.

Based on the intake data calculated with the new data provided by the applicant on 28 April 2009 for total dietary exposure (traditionally and non-traditionally smoked food), the margins of safety as compared to the NOAEL of 300 mg/kg bw/day in female rats derived from the 90-day toxicity study amount to 9 and 14 for the intake estimates based on the upper use levels and to 24 and 34, when normal use levels are considered.

When assuming the use of Primary Product SmokeEz Select 23 in traditionally smoked products only the margins of safety would amount to 21 and 36 based on the upper use levels and to 44 and 72 when normal use levels are considered.

The fact that these margins of safety based on a 90-day toxicity study are inadequate, and in addition, data on reproduction and developmental toxicity and long term studies are absent, it is concluded that the uses and use levels for the Primary Product in a wide range of product categories would require a larger margin of safety. The Panel concludes that the margin of safety is insufficient and that the use of Primary Product SmokEz Select 23 at the proposed uses and use levels is of safety concern.

To decide whether despite the low margins of safety the use of Primary Product SmokEz Select 23 might be approved for traditionally smoked products, at use levels specified, to replace smoking, is outside the remit of the Panel.

8.4. **Draft opinion on Smoke Flavouring Primary Product SmokeEz C-10**

EFSA-Q-2005-263

The applicant provided updated data on use levels in April 2009 and the Panel drew its conclusions based on the margins of safety calculated with these recent data.

Based on the intake data calculated with the new data provided by the applicant on 28 April 2009 for total dietary exposure (traditionally and non-traditionally smoked food), the margins of safety as compared to the NOAEL of 300 mg/kg bw/day in female rats derived from the 90-day toxicity study amount to 9 and 14 for the intake estimates based on the upper use levels and to 24 and 32, when normal use levels are considered.

When assuming the use of Primary Product SmokeEz C-10 in traditionally smoked products only the margins of safety would amount to 21 and 36 based on the upper use levels and to 44 and 72 when normal use levels are considered.

The fact that these margins of safety based on a 90-day toxicity study are inadequate, and in addition data on reproduction and developmental toxicity and long term studies are absent, it is concluded that the uses and use levels of the Primary Product SmokEz C-10 in a wide range of product categories would require a larger margin of safety. The Panel concludes that the

margin of safety is insufficient and that the use of Primary Product SmokEz C-10 at the proposed uses and use levels is of safety concern.

To decide whether despite the low margins of safety the use of Primary Product SmokEz C-10 might be approved for traditionally smoked products, at use levels specified, to replace smoking, is outside the remit of the Panel.

8.5. Draft opinion on Smoke Flavouring Primary Product Fumokomp

EFSA-Q-2005-265

The rapporteurs presented the draft opinion. It was briefly discussed and changes were suggested. The recommended changes will be introduced to the draft and it will be forwarded to one of the next Plenary meetings.

9. IRRADIATION OF FOODSTUFFS

EFSA-Q-2006-034

The discussion was postponed

10. ANY OTHER BUSINESS

None