



Food and Agriculture Organization
of the United Nations



World Health
Organization

JOINT FAO/WHO EXPERT COMMITTEE ON FOOD ADDITIVES
Seventy-second meeting
(Contaminants)

Rome, 16-25 February 2010

**LIST OF SUBSTANCES SCHEDULED FOR EVALUATION
AND REQUEST FOR DATA**

Attached is the list of substances (Table 1) scheduled for evaluation or re-evaluation at the seventy-second meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA). This list has been prepared by the Joint FAO/WHO Secretariat of the Committee and is based on recommendations of the Codex Committee on Contaminants in food (CCCF), previous Expert Committees, and direct requests from governments, other interested organizations, and the Joint JECFA Secretariat.

Submission of data

Table 1 lists the contaminants to be considered at the meeting. Governments, interested organizations, companies, and individuals are invited to submit toxicological, chemical, and intake data for the contaminants that are listed. The submitted data may be published or unpublished and should contain detailed reports of laboratory studies, including individual animal data, detailed description on analytical methods with performance limits etc. Reference to relevant published studies should also be provided, where applicable. Summaries in the form of monographs are helpful, but they are not in themselves sufficient for evaluation.

Unpublished confidential studies that are submitted will be safeguarded and will be used only for evaluation purposes by JECFA. Summaries of the studies will be published by FAO and WHO after the meeting in form of a report of the meeting and toxicological monographs.

FAO and WHO have only limited data storage capacity. The submitted data can either be returned to submitters at their expense or destroyed after the evaluations have been completed. Please indicate the preferred procedure for data disposal at the time of submission. Key material can be stored up to five years and will then be destroyed.

The secretariats of JECFA at FAO and WHO encourage electronic submissions. Such data should be presented preferably using standard word processing or document formats, and should be submitted on disks or CD-ROMs. In particular, the Secretariat encourages the submission of food contaminant data according to the protocol provided by GEMS/Food.^a

^a *Instructions for the electronic submission of data on chemical contaminants in food.* GEMS/Food Programme (WHO/SDE/PHE/FOS/00.2 - available at <http://www.who.int/foodsafety/chem/gems/en>), WHO, Geneva, 2000.

Date for submission

The submission of data on those compounds listed in Table 1 is requested before

30 September 2009.

Toxicological data

Data relevant to the toxicological evaluation of the substances on the agenda:

1. metabolism, pharmaco/toxico-kinetic studies and biomarker studies
2. short-term toxicity, long-term toxicity/carcinogenicity, reproductive toxicity, and developmental toxicity studies in animals and genotoxicity studies;
3. epidemiological studies; and

special studies designed to investigate specific effects, such as the mechanism of toxicity, immune responses, or macromolecular binding should be sent to:

Department of Food Safety, Zoonoses and Foodborne Diseases

Attention: Dr Angelika Tritscher

World Health Organization

Avenue Appia

1211 Geneva 27

Switzerland

Facsimile: (+41 (0)22)791 4848

Telephone: (+41 (0)22)791 3569

E-mail: jecfa@who.int

Three copies of the data are required, one for submission to the address above, one for submission directly to the WHO Temporary Adviser who will be reviewing the data (which should include a paper copy), and one for the Member assigned to peer review the working paper. Please contact the WHO Joint Secretary prior to submission of the data for information on where to send the copies.

Technological data

Data relevant to the occurrence and bioaccumulation, formation/fate during food manufacturing/processing, and identification and quantification of the substances on the agenda including:

1. levels and patterns of occurrence of the listed contaminants in food commodities and food products,
2. analytical techniques for identifying and quantifying the listed substances;
3. sampling protocols for the listed contaminants;
4. effects of processing on levels of the listed contaminants in food as consumed, and
5. methods available for the prevention and control of the listed contaminants

should be sent to:

Nutrition and Consumer Protection Division
Attention: Dr. Annika Wennberg
Food and Agriculture Organization of the United Nations
Via delle Terme di Caracalla
00100 Rome
Italy
Tel: (+39) 06 5705 3283
Fax: (+39) 06 5705 4593
E-mail: annika.wennberg@fao.org

Two copies of the data are required, one for submission to the address above, one for submission directly to the FAO expert who will be reviewing the data (which should include a paper copy). Please contact the FAO Joint Secretary prior to submission of the data for information on where to send the copies.

Intake assessment data

All relevant data on:

1. levels and patterns of human exposure from all relevant sources of the listed contaminants;
2. food consumption patterns; also considering different (age-)population groups
3. biomarkers of exposure

should be sent to the attention of Dr. Wennberg at FAO (address above) and to WHO under the address above (jecfa@who.int). Additional copies should be sent to the experts assigned for the exposure assessment, please contact the FAO or WHO Secretariat for information on where to send the copies.

Presentation of data

Please note that the above lists are not meant to be all-inclusive since it is recognized that other studies may, in some instances, assist in the evaluation.

Data on occurrence of the listed contaminants in food should be submitted according to GEMS/Food format. For more information please refer to the GEMS/Food Electronic Reporting Manual available at the WHO Website - <http://www.who.int/foodsafety/publications/chem/en/gemsmanual.pdf>.

Procedures for the evaluation of food additives and contaminants were published by WHO in 1987 (*Principles for the Safety Assessment of Food Additives and Contaminants in Food – Environmental Health Criteria No. 70*, available at <http://www.who.int/pcs/jecfa/ehc70.html>).

Specific procedural guidelines for food additives and contaminants are as well available from FAO and WHO (see http://www.fao.org/ag/agn/agns/jecfa_guidelines_en.asp and <http://www.who.int/pcs/jecfa/FA%20procedural%20guidelines.pdf>).

All relevant data, both positive and negative, should be submitted. Data should be presented, summarized and referenced in a clear and concise manner.

This call for data is available at both the FAO and WHO web sites:

http://www.fao.org/ag/agn/agns/jecfa_new_en.asp

<http://www.who.int/pcs>

Table 1
Joint FAO/WHO Expert Committee on Food Additives (JECFA)
Seventy-second meeting, Rome, 16-25 February 2010

List of contaminants scheduled for evaluation or re-evaluation

General information: Links to available electronic versions of the reports published in the WHO Technical Report Series, monographs published in the WHO Food Additives Series referenced below are available at the JECFA webpages of FAO and WHO. FAO and WHO procedural guidelines, toxicological working papers and guidelines for the preparation of working papers on contaminants and intake are available at www.who.int/pcs/jecfa/jecfa_gls.htm and http://www.fao.org/ag/agn/agns/jecfa_guidelines_1_en.asp.

Previous reports and monographs should be consulted to obtain background information on the previous evaluations. Detailed biographical references for the most recent meetings of JECFA are available on page 6.

Contaminant	Reference (previous evaluations)	Background	Information required
Acrylamide	Sixty-fourth report of JECFA ⁽¹⁾ , FAS 55 ⁽²⁾	<p>At its 64th meeting JECFA made the following recommendations:</p> <ul style="list-style-type: none"> - The Committee recommended that acrylamide be re-evaluated when the results of planned and ongoing studies of carcinogenicity and long-term studies of neurotoxicity become available. - The Committee recommended that work should be continued on the use of physiologically based pharmacokinetic modelling for acrylamide to better link data on biomarkers in humans with intake assessments and toxicological effects in experimental animals. - The Committee noted that it would be useful to have data on the occurrence of acrylamide in foods as consumed in developing countries. This information would be useful in conducting intake assessments, as well as considering mitigation approaches to reduce human exposure. 	<p>All information related to the toxicology and epidemiology, exposure assessment, including biomarker studies; analytical methodology, formation, fate and occurrence in food. In particular data to address the recommendations of JECFA are requested.</p> <p>Data on occurrence in food should be submitted in the specific GEMS Food format developed for acrylamide.</p> <ul style="list-style-type: none"> • Acrylamide Templates - This Excel workbook contains three worksheets to enter information about individual, aggregate, and total diet data. • Acrylamide Tables - This Excel workbook contains supportive information to fill out the Acrylamide Templates. The five Excel spreadsheets include information on CCFAC Food Categories, Codex Food Classification

			Codes, WHO Country Codes, Heating Codes, and Pretreatment Codes. For further information please refer to: http://www.acrylamide-food.org/call_for_data.htm
Arsenic	Thirty-third report of JECFA ⁽³⁾ , FAS24 ⁽⁴⁾	Arsenic was last evaluated by JECFA at its thirty-third meeting in 1988 and a PTWI of 0.015 mg/kg bw was established. A large amount of scientific data has become available since then, including epidemiological studies, which warrants a re-evaluation and review of the PTWI.	All information related to the toxicology and epidemiology, exposure assessment, including biomarker studies; analytical methodology, speciation and occurrence in food and drinking water.
Deoxynivalenol (DON)	Appendix XIII of the Report of the second Session of CCCF ⁽⁵⁾ , Fifty-sixth report of JECFA ⁽⁶⁾ , FAS 47 ⁽⁷⁾	Request from CCCF: Exposure assessment on a more global basis taking new data into account, also review of toxicological data and considering the need for an acute reference dose (taking into account data also in finished products, but also in raw wheat and other commodities as they are traded internationally and consideration of processing factors). Toxicity of 3-acetyl and the 15-acetyl DON (data availability unknown).	All information related to the toxicology of DON and its acetyl-metabolites, especially acute toxicity data, epidemiology, exposure assessment, analytical methodology, formation and occurrence in food, (finished products as well as raw commodities); fate in food during storage and processing.
Furan	Appendix XIII of the Report of the second Session of CCCF ⁽⁵⁾	Request from CCCF: Full evaluation (toxicological assessment and exposure assessment)	All information related to the toxicology, epidemiology, exposure assessment, analytical methodology, formation, fate and occurrence in food.
Perchlorate	Appendix XIII of the Report of the second Session of CCCF ⁽⁵⁾	Request from CCCF: Full evaluation (toxicological assessment and exposure assessment)	All information related to the toxicology, epidemiology, exposure assessment, analytical methodology, formation, fate and occurrence in food.
Total Mercury	Sixteenth report of JECFA ⁽⁸⁾ , FAS 13 ⁽⁹⁾ Sixty-first report of	At its sixty-first meeting when re-evaluating methyl mercury, JECFA made the following recommendation:	All new information related to the toxicology and epidemiology of <u>inorganic</u> mercury. Data on speciation and occurrence of inorganic and total

	JECFA ⁽¹⁰⁾	At its sixteenth meeting, the Committee established a PTWI for total mercury of 300µg/person, of which no more than 200µg should be present as methylmercury. This PTWI of 3.3µg/kg of body weight for methylmercury was confirmed at subsequent meetings. Since the PTWI for methylmercury was revised at the current meeting, the Committee recommended that the PTWI for total mercury be revised.	mercury in food, and on dietary exposure.
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References

1. Evaluation of certain food contaminants (Sixty-fourth report of the Joint FAO/WHO Expert Committee on Food Additives). WHO Technical Report Series, No. 930, 2006.
2. Safety evaluation of certain contaminants in food. WHO Food Additives Series, No. 55, and FAO Food and Nutrition Paper, No. 82, 2006.
3. Evaluation of certain food additives and contaminants (Thirty-third report of the Joint FAO/WHO Expert Committee on Food Additives). WHO Technical Report Series, No. 776, 1989.
4. Toxicological evaluation of certain food additives and contaminants. WHO Food Additives Series, No. 24, 1989.
5. Report of the second session of the Codex Committee on contaminants in foods (CCCF), The Hague, The Netherlands 31 March – 4 April 2008 (ALINORM 08/31/41).
6. Evaluation of certain mycotoxins in food. (Fifty-sixth report of the Joint FAO/WHO Expert Committee on Food Additives). WHO Technical Report Series, No. 906, 2002.
7. Safety evaluation of certain mycotoxins in food. WHO Food Additives Series, No. 47, and FAO Food and Nutrition Paper, No. 74, 2001.
8. Evaluation of certain food additives and contaminants mercury, lead and cadmium (Sixteenth report of the Joint FAO/WHO Expert Committee on Food Additives). WHO Technical Report Series, No. 505, and FAO Nutrition Meetings Report Series, No. 51, 1972.
9. Evaluation of mercury, lead, cadmium and the food additives amaranth, diethylpyrocarbonate, and octyl gallate. WHO Food Additive Series, No. 4, 1972, and FAO Nutrition Meetings Report Series, no. 51A, 1973.
10. Safety evaluation of certain food additives and contaminants (Sixty-first report of the Joint FAO/WHO Expert Committee on Food Additives). WHO Technical Report Series, No. 922, 2004.

JOINT FAO/WHO EXPERT COMMITTEE ON FOOD ADDITIVES

BACKGROUND

The Joint FAO/WHO Expert Committee on Food Additives (JECFA) was established in the mid-1950s by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) to assess chemical additives in food on an international basis. The first meeting was held in 1956 in response to recommendations made at an FAO/WHO Conference on Food Additives that met in Geneva in 1955.

In the early 1960s the Codex Alimentarius Commission (CAC), which is an international inter-governmental body, was established. The primary aims of the CAC are to protect the health of the consumer and facilitate international trade in food. At the time that the CAC was formed it was decided that JECFA would provide expert advice to Codex on matters relating to food additives. A system was established whereby the Codex Committee on Food Additives, a general subject committee, identified food additives that should receive priority attention, which were then referred to JECFA for assessment before being considered for inclusion in Codex Food Standards.

This system is still in place, but it has been expanded to include food contaminants and residues of veterinary drugs in food to provide advice to the presently-existing Codex Committee on Food Additives (CCFA), Codex Committee on Contaminants in Food (CCCF) and Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF). JECFA also provides scientific advice directly to FAO and WHO Member States, and requests for assessment may come directly from them. JECFA is not a component of the CAC.

Specialists invited to serve as Members of JECFA are independent scientists who serve in their individual capacities as experts, and not as representatives of their governments or employers. The goal is to establish safe levels of intake and to develop specifications for identity and purity (food additives) or maximum residue limits when veterinary drugs are used in accordance with good practice in the use of veterinary drugs.

Through 2008, a total of seventy meetings of JECFA have been held. The reports are published in the WHO Technical Report Series. The toxicological evaluations, that summarize the data that serve as the basis for the safety assessments, are published in the WHO Food Additives Series. The specifications and veterinary drug residue evaluations are published in the FAO JECFA Monographs. The Combined Compendium of Food Additive Specifications of all current JECFA specifications is available on-line <http://www.fao.org/ag/agn/jecfa-additives/search.html?lang=en>. The newly updated data base on specifications for flavouring agents is available at <http://www.fao.org/ag/agn/jecfa-flav/search.html>.

A *Summary of Evaluations* performed by the Joint FAO/WHO Expert Committee on Food Additives, a comprehensive document that summarizes all JECFA evaluations from the first through recent meetings, is available free of charge on the Internet in a searchable format at <http://www.who.int/ipcs/food/jecfa/en/index.html>, or http://www.fao.org/ag/agn/jecfa/archive_en.stm.