



JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Forty-fourth Session

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PROTOTYPE OF A DATABASE ON PROCESSING AIDS

Prepared by China, with assistance of New Zealand

BACKGROUND

The 42nd Session of the Codex Committee on Food Additives (CCFA; Beijing, China 15-19 March 2010) agreed to establish an electronic working group, led by New Zealand, to consider the structure and content of the database, and criteria for the entry and update of the database. In the 43rd Session of the Codex Committee on Food Additives, the Delegation of New Zealand presented the report of electronic working group².

The 43rd Session of the Codex Committee on Food Additives (CCFA; Xiamen (Fujian Province), China 14-18 March 2011) agreed to the proposal of the Chairperson to follow a stepwise approach. In the first step, China would develop a prototype of the database showing the main layout and present it at the next session of the Committee. The criteria for the entry of substances and the management of the database would be considered at a subsequent step³.

While the definition of processing aids is in the Procedural Manual, the *Codex Guidelines on Substances Used as Processing Aids (CAC/GL 75-2010)* (hereinafter referred to as “the Guidelines”); is a base document in the development of the database, providing the principles for the safe use of processing aids.

As delegations noted in the last session, when considering the entries in the database it should not be assumed that all entries of the IPA are correct; the criteria on safety and technological use established in the Guidelines should always be met.

China, with comment from New Zealand, developed the web-based prototype database following the decision of the 43rd CCFA and also taking into account the discussion paper, its recommendations and comments from the session.

The prototype of the database is now available on line for test run. Users can view and test the database by visiting website of CCFA Secretariat, the database is on <http://www.ccfa.cc/IPA/>. (“IPA” should be capitalized).

STRUCTURE OF THE PROTOTYPE PROCESSING AIDS DATABASE

1.1 Introduction

The homepage shows the different sections of the database, and users are able to enter each section conveniently by clicking navigation buttons. The notice about the update information and other relevant information is shown in the middle of the homepage.

1.2 Searching

Search engine is one of the most important parts in a database, as a good search engine could save time and available not only for the users, but also people who take care of the routine operation of the database, thus make it more convenient and efficient.

Users are able to search by:

¹ The document is available in English only that due to its late availability.

²CX/FA 11/43/20

³REP11/FA Para. 169-172

- Names of Substances;
- INS Numbers or CAS Numbers;
- Technological Functions.



Name of Substance: Ammonium alginate*

Code Number

CAS Number:

INS Number:

Definition and Description

Technological Function [Category (for enzyme preparations only)]: Boiler water additives

Description:

Area of Usage

Area of utilization (Food Category): boiler water

Interaction:

Residues (mg/kg) (less than):

Adoption: CCFAC 22

Specifications: Yes

JECFA evaluation see JECFA

1.3 Main Section (Technological Function & ABC Index)

As the eWG concluded, the database will need to record information to identify the substance, its technological function, its use as a processing aid, and safety-related information, such as references to specifications and safety evaluations. For each substance it is suggested to include following information:

1.3.1 General Information:

- Name of substance –the chemical name or description of the substance used as processing aid. Enzymes will adopt Accepted Name according to the International Union of Biochemistry and Molecular Biology. (Asterisk those substances which could also be used as food additives.)
- Code number – substances' International Numbering System (INS) number and Chemical Abstract Service (CAS) Registry Number; in the case of enzymes, providing their unique Number according to the International Union of Biochemistry and Molecular Biology (IUBMB).

1.3.2 Definition and Description:

- Technological functions – refer to Codex technological function. For regional or national technological functions which do not correspond to any of Codex technological functions are suggested to assign to “Other Technological Functions”.
- Description – definition and general description of substance, including composition, chemical structure, etc.

1.3.3 Area of Use

- Area of use –the food or food processing procedures in which the processing aid or enzyme is utilised. It is not possible to list every use. To avoid misunderstanding, this part does not include examples of utilization.
- Interaction with food – describes the degree of chemical interaction with food components. Provides data on levels of interaction products in food.
- Residue –the level of processing aid remaining in food after processing.
- Adoption – The session which the processing aids was adopted by CCFA.

1.3.4 JECFA Evaluation

- JECFA specifications – Provide link to JECFA FAO specification as reference.

- JECFA evaluation – Provide link to JECFA WHO monograph as reference. It should be noted that the reference is to the latest JECFA evaluation.
- ADI – the latest JECFA ADI in mg/kg body weight or other end point of safety assessment. For consistency with IPA.

1.3.5 Notes and References

- Other Evaluations –identify other appropriate safety evaluation information, or demonstration of safety other than JECFA evaluation.
- Special use history –provide information about substance currently used in food that is legally traded in one or more Codex Members. This part is designed to collect information about utilization of substances as processing aids and their management.
- Approval information in member countries

Substance Information	
Substance Name:	<input type="text"/> *
CAS:	<input type="text"/>
INS:	<input type="text"/>
Technological Function:	<input type="text"/> *
Description:	<input type="text"/>
Specifications:	<input type="text"/>
Area of Usage	
Area of utilization (Food)	<input type="text"/>
Adoption:	<input type="text"/>
Interaction:	<input type="text"/>
Residues[less than(mg/kg)]:	<input type="text"/>
JECFA Evaluation	
Is JECFA Evaluated:	<input type="text"/>
Link of JECFA WHO	<input type="text"/>
Comments:	<input type="text"/>
ADI:	<input type="text"/>
Identity:	<input type="text"/>
Purity:	<input type="text"/>
Notes and References	
Other Evaluations:	<input type="text"/>
Special Use History:	<input type="text"/>
Approval information in	<input type="text"/>
<input type="button" value="Submit"/>	

1.4 Nominate new Processing Aids to Database (example only)

By submitting adequate materials properly, users can apply to add new entry or modify existing entry of database. It is easy and convenient for registered users from different background to apply through the system, while the criteria for the entry and modification or deletion of the database is still upon decision of the committee.

The update application is divided into four parts, requiring information of individual substances about :(See details in: <http://www.ccfa.cc/IPA>)

1. The general information about the substance, including name, code number, technological function, chemical description and specifications
2. The area of use of the substance, including food categories, interaction with food, residues in food and adopt session (in CCFA)
3. JECFA Evaluation information about the substance, including JECFA monograph, comments, ADI, identity and purity

4. Notes and References regarding to other evaluations, special use history or member countries' approval information

1.5 Communication

This part provides a brief introduction to the database, including the history, main sections and content of the database, and general rules for the users.

The "Contact Us" part is for the communication between users and administrators of the database. Users can get in touch with the administrators by sending e-mails to ipa_db@ccfa.cc.

1.6 Others

Website (Quick Links) – provide related quick links for users to browse, e.g.

<http://www.codexalimentarius.org/standards/gsfa-online-food-additives/en/>(GSFA online), Codex official website, and JECFA websites.

Documents (Guidelines and Session Reports) –temporarily include Codex Guidelines on Substances Used as Processing Aids and Report of the Forty-Third Session of the Codex Committee on Food Additive⁴

Support (FAQs and forum) – solve general and simple problems users might encounter. The forum is a platform for users and administrators to realise instant communication.

RECOMMENDATIONS

The Committee is invited to consider the following recommendations:

1. To continue to development the prototype database taking into account discussion and comments at the meeting.
2. To establish an electronic working group to consider and make further recommendations on the structure, content and management of the database, including criteria for the entry of substances (based on Option 3, the preferred option in the discussion paper as summarized below).

Criteria for entry and range of substances in the database

The eWG recommended the Section 3 of Guideline be used to provide general criteria for the entry of substance into the database.

Option 3 All reported uses. Substances are used as a processing aid by one or more Codex Members.

But also include substances that:

- The use of which has been classified as a processing aid by CCFA
- The use of which is permitted as a processing aid under a Codex Commodity Standard
- Are evaluated by JECFA for use as a processing aid and are covered under a JECFA specification monograph that has been recommended by the CAC.

(The eWG suggested that Option 3 is the **preferred option** as it is most consistent with the aim of providing a database of substances used as processing aids. It will provide information on the acceptable use of processing aids on the basis of use by one or more Codex Members and will identify those processing aids already considered within Codex. Option 3 acknowledges that where a substance is used as a processing aid by one or more Members, the safety of such uses will have been considered by those Members. Furthermore, existing uses may establish a history of use.)

As noted in the discussion paper prepared by the eWG, a wider range of data should be collected in order to provide users with comprehensive and abundant information. Furthermore, a larger database will be more useful to identify data gaps and decide on priorities for future work. However, considering the cost of administration, the database should avoid becoming unmanageably large.

⁴REP11/FA, ftp://ftp.fao.org/codex/Reports_2011/REP11_FAe.pdf