# codex alimentarius commission



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS WORLD HEALTH ORGANIZATION



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# Agenda Item 3 (a)

CX/FAC 05/37/2, Add. 1 April 2005

# JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FOOD ADDITIVES AND CONTAMINANTS

# Thirty-seventh Session The Hague, the Netherlands, 25 -29 April 2005

# MATTERS REFERRED/OF INTEREST TO THE COMMITTEE ARISING FROM THE CODEX ALIMENTARIUS COMMISSION AND OTHER CODEX COMMITTEES

# **EXECUTIVE COMMITTEE (55th Session)**

#### Criteria to be Used by FAO and WHO for Prioritization of Requests by Codex for Scientific Advice <sup>1</sup>

The Committee agreed to recommend to FAO and WHO the following set of criteria for the prioritization of requests from Codex for scientific advice:

- Relevance in relation to the strategic objectives and priorities as defined in the Strategic Plan;
- Clear definition of the scope and objective of the request as well as clear indication of the way in which the advice will be used in the work of Codex;
- Significance and urgency to the development or advancement of Codex texts taking into account public health and/or food trade relevance of the issue and the needs of developing countries;
- Availability of scientific knowledge and data required to conduct the risk assessment or to elaborate the scientific advice;
- High priority assigned by the Codex Alimentarius Commission.

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ALINORM 05/28/3, para. 75

# CODEX COMMITTEE ON FOOD HYGIENE (37th Session)

#### Draft Terms of Reference for the FAO/WHO Expert Consultation on the Uses of Active Chlorine<sup>2</sup>

The Committee agreed to the following the terms of reference for the FAO/WHO expert consultation on the uses of active chlorine.

# TERMS OF REFERENCE FOR THE FAO/WHO EXPERT CONSULTATION ON THE USES OF ACTIVE CHLORINE (ASPECTS RELEVANT TO CCFH)

# **QUESTIONS FOR CONSIDERATION**

CCFH recommends that the terms of reference for the expert consultation to be conducted by FAO/WHO include consideration of the microbiological benefits from the treatment of food, food processing water, or food contact surfaces with different forms of active chlorine and the potential risks that might arise if these compounds were no longer available. The primary benefits include elimination of potential contamination with pathogenic and non-pathogenic microorganisms from the direct treatment of foods with active chlorine, and the elimination of contamination or cross contamination from food processing water and food contact surfaces. Accordingly, the microbiological risks of concern, if these agents are no longer available, are potential increases in foodborne disease due to increased contamination with pathogenic microorganisms. The risk assessment to be conducted by Expert Consultation should focus on specific microbial hazards (e.g., specific pathogens) and specific spoilage issues associated with particular foods or food processing environments that are currently controlled by the use of active chlorine. Risks considered should include whether the treatment itself or elimination of such treatment could result in increased exposure to microbial hazards under some conditions and decreased availability of foods.

The risks and factors that should be considered by the expert consultation include:

- the risk of increased exposure to microbial hazards or increased microbial loads associated with different types of food or food processing surfaces
- the availability of alternative technologies or treatments that could be used as an alternative to active chlorine in order to control microbiological contamination
- the relative efficacy of alternative technologies or treatments both in terms of effectiveness and relative cost of application in comparison to chlorine
- the risks associated with the application of alternative technologies or treatments
- potential "unintended consequences" arising from the reduction or substitution in the use of active chlorine as an antimicrobial treatment (e.g., the generation of mutagenic compounds due to the application of heat treatments, the emergence of antimicrobial resistance in response to alternative antimicrobials, the growth of pathogenic micro-organisms following the (partial) removal of the initial flora by application of antimicrobial substances).

The consultation should focus on consideration of data on which pathogen/food spoilage microorganismfood commodity combinations are currently controlled effectively by active chlorine treatments. If feasible, the consultation should consider the effectiveness of active chlorine compounds in a quantitative manner to determine if reductions in the levels of active chlorine compounds could be realized without increasing substantially the risk of foodborne disease or food spoilage.

#### **Elements Requiring Elaboration**

In evaluating the antimicrobial effectiveness of active chlorine (or their alternatives), the expert consultation should be cognizant of and take into account:

• the differential activity of active chlorine in different types of food due to factors such as time and temperature of application, pH or other characteristics of the food matrix, the level of organic material, water characteristics, the point in the food production process or processing line in which chlorine is used and purity of the active chlorine compounds

<sup>&</sup>lt;sup>2</sup> ALINORM 05/28/13, para. 173 and Appendix VI

- the differential activity of active chlorine as a result of physical state of the medium (e.g., liquid vs. solid, surface vs. interior)
- the different susceptibility of microorganisms on food contact surfaces versus those present in biofilms
- the evaluation of the organoleptic changes in the product following antimicrobial treatment
- evaluation of the effect of antimicrobial treatment on water retention in fresh meat

#### **Utilization of Existing Information**

Wherever feasible, the expert consultation should identify and make use of existing risk assessments or risk evaluations that have been performed by national governments or recognized scientific organizations.

# TIME FRAME

Since the results of the expert consultation are needed to determine if any further consideration of active chlorine should take place within CCFAC, the final report of the risk assessment should be completed