



Technews

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For Efficient Dairy Plant Operation**

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NEW CODEX STANDARDS RELEVANT TO DAIRY INDUSTRY

This bulletin includes technical information based on latest developments on products, systems, techniques etc. reported in journals, companies' leaflets and books and based on studies and experience. The technical information in different issues is on different areas of plant operation. It is hoped that the information contained herein will be useful to readers.

The theme of information in this issue is **New Codex Standards Relevant to Dairy Industry**. It may be understood that the information given here is by no means complete.

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1. INTRODUCTION

The Codex standards, codes of practice and guidelines are recognized as reference points in international trade by the World Trade Organization (WTO). Codex standards and other related texts are developed by the different Committees of the Codex Alimentarius Commission (CAC) through a specific procedure and finally approved by the Commission in its sessions. As described in *Technews* Issue 22 (September-October 1999), the Codex standards are developed through an 8-step procedure. For final adoption, the Codex Committees may submit to the Commission draft standards at Step 8, Step 5/8, which means that Steps 6 and 7 are recommended to be omitted; or at Step 5 Accelerated where there is urgency, in which case the final endorsement is made at Step 5 itself. The proposed standards are also submitted to the Commission at regular Step 5, at which the Commission may adopt them provisionally as draft standards and these would then be further considered by the respective Committees.

The important decisions of the 29th Session of the Commission (Geneva, 3 July – 8 July 2006) were reported in *Technews* Issue 63 (July-August 2006).

The 30th Session of the Commission was held in Rome during 2-7 July 2007. The important decisions of the Commission, relevant to the dairy sector, are presented in this issue.

2. NEW STANDARDS ADOPTED

The Codex Alimentarius Commission endorsed several standards and related texts at Step 8, 5/8 or 5 Accelerated of the Codex step procedure, as proposed by different Codex Committees. These standards have now become applicable. Such standards and related texts important for dairy industry are listed below along with their salient features.

- a) **Revised Standards for Individual Cheeses (Cheddar, Danbo, Edam, Gouda, Havarti, Samsø, Emmental, Tilsiter, Saint-Paulin, Provolone, Cottage Cheese, Coulommiers, Cream Cheese, Camembert, Brie and Mozzarella) (ALINORM 06/29/11, Appendices VI, VII, IX–XXII).**

The Commission adopted these revised standards as final standards. An important revision is in Section 3.1: Raw Materials of the revised standards which now includes “*cows’ milk or buffaloes’ milk or their mixtures*” or “*milk*” (in cream cheeses) as raw materials for these cheeses. The earlier standards permitted use of only cow milk for making these products.

Secondly, all the individual cheese standards have provision for mandatory declaration of the ‘*country of origin*’, which now means the country of manufacture, and not the country in which the name originated as was the case in the earlier Codex standards for these products. When the product undergoes substantial transformation (for instance, repackaging, cutting, slicing, shredding and grating are not regarded as substantial transformation) in a second country,

the country in which the transformation is performed is considered to be the country of origin for the purpose of labelling.

Further, the Codex Committee on Food Additives, in view of the revision of the 'Acceptable Dairy Intake (ADI)' of the annatto extracts by the JECFA, did not endorse the use of annatto extracts proposed in the above cheese standards. The Commission recommended that the Codex Committee on Milk and Milk Products reconsider the levels of annatto extracts. Therefore, annatto extracts are not permitted in colouring agents in above cheeses till their revised levels are adopted.

b) Revised Standard for Infant Formula and Formulas for Special Medical Purposes Intended for Infants (ALINORM 07/30/26, Appendix II)

This is a revision of an existing standard. The approach taken in the revision is to develop the standard in two Sections: Section 'A' on infant formula for healthy infants and Section 'B' on infant formula for special medical purposes.

The Section A of the revised standard specifies a nitrogen conversion factor (NCF) of 6.25 for all types of infant formula, irrespective of the source of protein, which also applies to the products covered under Section B. However, the standard includes a statement indicating that a value of 6.38 is generally established as a specific factor appropriate for conversion of nitrogen to protein in other milk products. This is intended to prevent precedence for use of 6.25 as a nitrogen conversion factor for estimation of protein in milk and milk products.

c) Maximum Levels for Tin in Canned Foods (other than Beverages) and in Canned Beverages (ALINORM 07/30/41, Appendix IX)

The Commission adopted the Proposed Draft Maximum Levels for Tin in Canned Foods (other than beverages) as 250 ppm and in canned beverages as 150 ppm. Our PFA standard for tin in processed canned products (which includes canned condensed milk) and foods not specified (which would include beverages not canned) is 250 ppm.

d) Guideline on the Application of General Principles of Food Hygiene to the Control of *Listeria monocytogenes* in Ready-to-Eat Foods (ALINORM 07/30/13, Appendix III; Report of the 30th CAC, July 2007)

These guidelines highlight key control measures that affect key factors that influence the frequency and extent of contamination of ready-to-eat foods with *L. monocytogenes* and thus the risk of listeriosis. The guidelines are applicable throughout the food chain, from primary production through consumption, in addition to the Good Hygienic Practices (GHPs) as specified in the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969).

L. monocytogenes has been isolated from dairy products such as raw and pasteurised fluid milk, cheeses (particularly soft-ripened varieties), ice cream and butter. The microorganism can multiply during storage in foods that support growth and even at refrigeration temperatures. It causes invasive

listeriosis with the symptoms like bacteremia (presence of bacteria in blood), septicaemia presence and multiplication of bacteria in blood), meningitis (inflammation of membrane surrounding brain and spinal cord), encephalitis (inflammation of brain), miscarriage, neonatal disease, premature birth and stillbirth. Hence these guidelines would be useful in ensuring the safety of dairy products through management of *Listeria*.

e) Guidelines for Design, Production, Issuance, and Use of Generic Official Certificates (ALINORM 07/30/30, Appendix II; Report of the 30th CAC, July 2007)

The standard is a result of revision of the *Codex Guidelines for Generic Official Certificate Formats and the Design, Production, Issuance and Use of Certificates*. The revised Guidelines are outcome-focused, principles-based and less prescriptive than the earlier ones; clearly separate between mandatory and marketing requirements; provide for flexibility to resolve difficulties related to specific attestations while ensuring food safety; and, provide for reducing the number of certificates while maintaining the link between a specific consignment and a specific certificate.

f) Food Additive Provisions of the General Standard for Food Additives (GSFA) (ALINORM 07/30/12 Rev., Appendix VII)

Several food additive provisions in allowing use of acesulfame potassium, alitame, aspartame, benzoyl peroxide, BHA, BHT, cyclamates, diacetyltartaric acid and fatty acid esters of glycerol, neotame, polysorbates, saccharin (and sodium, potassium and calcium salts), sucralose, and TBHQ in several dairy products [dairy-based drinks - flavoured

and/or fermented, e.g. chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks; dairy-based desserts, e.g., pudding, fruit or flavoured yoghurt; liquid whey and whey products excluding whey cheeses; beverage whiteners; sterilized and UHT creams, whipping and whipped creams, and reduced fat creams (plain); cream analogues; and milk and cream powder analogues] have been adopted.

g) Maximum Residue Limits (MRLs) for Pesticides (ALINORM 07/30/24, Appendices II & III)

The MRLs for pesticides, proposed by the Codex Committee on Pesticide Residues (CCPR), that have been endorsed, are given below:

Pesticide	Product	Maximum Residue Level (ppm)
Bifenazate	Milk fats	0.05
	Milks	0.01 (*)
Endosulfan	Milk fats	0.1
	Milks	0.01
Indoxacarb	Milk fats	2
	Milks	0.1
Pirimicarb	Milks	0.01 (*)
Propamocarb	Milks	0.01 (*)
Quinoxifen	Milk fats	0.2
	Milks	0.01
Thiacloprid	Milks	0.05
*—At or about the limit of determination		

3. STANDARDS ADVANCED TO STEP 5 FOR FURTHER CONSIDERATION

a) Draft Amendment to the General Standard for the Labelling of Prepackaged Foods: Quantitative Declaration of Ingredients (ALINORM 07/30/22, Appendix V)

The amendment makes it necessary that the ingoing percentage of an ingredient that is emphasized as present on the label of a food through words / pictures / graphics, or is not within the name of the food but is essential to characterize the food and is expected to be present in the food by consumers, be disclosed for foods sold as a mixture or combination. There are specific exceptions indicated to this requirement.

b) Draft Definition of Advertising in Relation to Nutrition and Health Claims (ALINORM 07/30/22, Appendix VI)

The Commission adopted the following definition of 'Advertising', and asked the Codex Committee on Food Labelling to clarify in which text the definition should be included when finalized:

"Advertising means any commercial communication to the public, by any means other than labelling, in order to promote directly or indirectly, the sale or intake of a food through the use of nutrition and health claims in relation to the food and its ingredients."

c) Draft Guidelines for the Use of Flavourings (ALINORM 07/30/12 Rev., Appendix XI)

This document is intended to provide principles for the safe use of the components of flavourings, evaluated by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and determined to present no safety concern at estimated levels of intake, or for which the JECFA has established acceptable daily intakes (ADIs), and for which corresponding specifications of identity and purity have been established and adopted by Codex. The 'flavourings' have been classified in three broad categories: i) Flavouring substances, further categorized as 'natural' and 'synthetic'; ii) Natural flavouring complexes; and iii) Smoke flavourings. The guideline also provides principles for the establishment of practices that do not mislead the consumer.

d) Draft Advisory List of Nutrient Compounds for Use in Foods for Special Dietary Uses Intended for Infants and Young children (ALINORM 07/30/26, Appendix V)

It provides a list of nutrient compounds, which may be used for nutritional purposes in foods for special dietary uses intended for infants and young children in accordance with the specified criteria and conditions of use identified in this standard and other criteria for their use provided in the respective commodity standards. In addition, the sources from which the nutrient compound is produced may exclude the use of specific substances where religious or other specific dietary restrictions apply.

4. STANDARDS REVOKED

a) Food Additive Provisions of the GSFA (ALINORM 07/30/12, Appendix VIII)

The Commission revoked certain food additive provisions in the GSFA relating to use of acesulfame potassium, alitame, annatto extracts, aspartame, aspartame-acesulfame potassium salt, benzoyl peroxide, neotame, polysorbates, polyvinyl alcohol, saccharin (and sodium, potassium and calcium salts) and sucralose in several dairy products [creams (plain); milk powder and cream powder and powder analogues (plain); dairy-based drinks, flavoured and/or fermented, e.g. chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks; unripened cheese; ripened cheese; processed cheese; cheese analogues; dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt); liquid whey and whey products, excluding whey cheeses; and condensed milk (plain)].

b) Maximum Residue Levels (MRLs) of Pesticides (ALINORM 07/30/24, Appendix V)

The following MRLs for milk and milk products have been revoked:

Pesticide	Product	Maximum Residue Level (ppm)
Bifenazate	Milks	0.01
Pirimicarb	Milks	0.05 (*)
* =At or about the limit of determination		

The report of the 30th Session of the CAC can be accessed at Codex website
<http://www.codexalimentarius.net>

The next (31st) Session of the CAC is tentatively scheduled during July 2008 in Geneva.

NEWS SECTION

Indian Food laws

- **Notification GSR 458 (E) of 2 July 2007 of the Ministry of Health and Family Welfare:** The notification has been issued to allow use of mono- and di-glycerides in the infant formula at a maximum level of 0.4 mg/kg with effect from 3rd July 2007.
- **Notification GSR 518 (E) of 31 July 2007 of the Ministry of Health and Family Welfare:** This notification is a corrigendum to the GSR 491 dated 20 August 2006 (refer *Technews* Issue No.64, September-October 2006), the provisions of which were scheduled to become effective from 20 August 2007. The current notification revises this date to 20 February 2008.

Codex Alimentarius Commission

The period October-November 2007 features meetings of the following important Codex Committees:

- 1st Session of the Codex *Ad-hoc* Intergovernmental Task Force on Antimicrobial Resistance, 23-26 October, Seoul, Republic of Korea;
- 39th Session of the Codex Committee on Food Hygiene, 30 October – 4 November, New Delhi;
- 29th Session of the Codex Committee on Nutrition and Foods for Special Dietary Uses, 12-16 November, Bad Neuenahr, Germany;
- 16th Session of the Codex Committee on Food Import and Export Inspection and Certification Systems, 26-30 November, Queensland, Australia.

International Dairy Federation (IDF)

The IDF has published the following Bulletins/Standard recently:

- IDF Bulletin 416/2007: Animal Health: Management and Control of Infectious and Production Diseases.
- IDF Bulletin 417/2007: The Health Benefits of Milk and Dairy Products.
- IDF 157 - ISO 11857: Milk - Determination of Total Milk-clotting Activity of Bovine Rennets.

For purchasing the IDF publications, contact Mr. Oscar Chavez, Office Manager, IDF, Brussels, Belgium (Email: OChavez@fil-idf.org).

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