

CODEX STANDARD FOR EDIBLE CASEIN PRODUCTS

CODEX STAN A-18-1995 Rev.1-2001

The Annex to this Standard contains provisions which are not intended to be applied within the meaning of the acceptance provisions of Section 4.A.(I)(b) of the General Principles of the Codex Alimentarius.

1. SCOPE

This Standard applies to edible acid casein, edible rennet casein and edible caseinate, intended for direct consumption or further processing, in conformity with the description in Section 2 of this Standard.

2. DESCRIPTION

Edible acid casein is the milk product obtained by separating, washing and drying the acid-precipitated coagulum of skimmed milk and/or of other products obtained from milk.

Edible rennet casein is the milk product obtained by separating, washing and drying the coagulum of skimmed milk and/or of other products obtained from milk. The coagulum is obtained through the reaction of rennet or other coagulating enzymes.

Edible caseinate is the milk product obtained by action of edible casein or edible casein curd coagulum with neutralizing agents followed by drying.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 RAW MATERIALS

Skimmed milk and/or other products obtained from milk.

3.2 PERMITTED INGREDIENTS

- Starter cultures of harmless lactic acid producing bacteria
- Rennet or other safe and suitable coagulating enzymes
- Potable water

3.3 COMPOSITION

	Rennet casein	Acid casein	Caseinates
Minimum milk protein in dry matter ^(a)	84.0% m/m	90.0% m/m	88.0% m/m
Minimum content of casein in milk protein	95.0% m/m	95.0% m/m	95.0% m/m
Maximum water ^(b)	12.0% m/m	12.0% m/m	8.0% m/m
Maximum milkfat	2.0% m/m	2.0% m/m	2.0% m/m
Ash (including P ₂ O ₅)	7.5% m/m (min.)	2.5% m/m (max.)	-
Maximum lactose ^(c)	1.0% m/m	1.0% m/m	1.0% m/m
Maximum free acid	-	0.27 ml 0.1 N NaOH/g	-
Maximum pH value	-	-	8.0

(a) Protein content is 6.38 multiplied by the total Kjeldahl nitrogen determined.

(b) The water content does not include water of crystallization of the lactose.

(c) Although the products may contain both anhydrous lactose and lactose monohydrate, the lactose content is expressed as anhydrous lactose. 100 parts of lactose monohydrate contain 95 parts of anhydrous lactose.

In accordance with the provision of section 4.3.3 of the General Standard for the Use of Dairy Terms, edible casein products may be modified in composition to meet the desired end-product composition. However, compositional modifications beyond the minima or maxima specified above for milk protein in dry matter, casein, water, milkfat, lactose and free acid are not considered to be in compliance with the Section 4.3.3.

4. FOOD ADDITIVES

Only those additives listed below may be used within the limits specified.

CASEINATES

INS No	Name of food additive	Maximum level
<i>Acidity regulators</i>		
261(i)	Potassium acetate	Limited by GMP
262(i)	Sodium acetate	
263	Calcium acetate	
325	Sodium lactate	
326	Potassium lactate	
327	Calcium lactate	
328	Ammonium lactate	
329	Magnesium lactate (DL-)	
452	Polyphosphates	
<u>Neutralizing agents</u>		
331	Sodium citrates	Limited by GMP
332	Potassium citrates	
333	Calcium citrates	
345	Magnesium citrate	
380	Ammonium citrates	
339	Sodium phosphates	10 g/kg singly or in combination expressed as P ₂ O ₅ *
340	Potassium phosphates	
341	Calcium phosphates	
342	Ammonium phosphates	
343	Magnesium phosphates	
170	Calcium carbonates	Limited by GMP
500	Sodium carbonates	
501	Potassium carbonates	
503	Ammonium carbonates	
504	Magnesium carbonates	
524	Sodium hydroxide	
525	Potassium hydroxide	
526	Calcium hydroxide	
527	Ammonium hydroxide	
528	Magnesium hydroxide	
<i>Emulsifiers</i>		
322	Lecithins	Limited by GMP
471	Mono- and di-glycerides of fatty acids	
<i>Bulking agents</i>		
325	Sodium lactate	Limited by GMP
<i>Anti-caking agents</i>		
170(i)	Calcium carbonate	10 g/kg singly or in combination *
341(iii)	Tricalcium orthophosphate	
343(iii)	Trimagnesium orthophosphate	

460	Cellulose	
504(i)	Magnesium carbonate	
530	Magnesium oxide	
551	Silicon dioxide, amorphous	
552	Calcium silicate	
553	Magnesium silicates	
554	Sodium aluminosilicate	
556	Calcium aluminium silicate	
559	Aluminium silicate	
1442	Hydroxypropyl distach phosphate	

*) Total amount of P₂O₅ shall not exceed 10 g/kg.

5. CONTAMINANTS

5.1 HEAVY METALS

The products covered by this Standard shall comply with the maximum limits established by the Codex Alimentarius Commission.

5.2 PESTICIDE RESIDUES

The products covered by this Standard shall comply with those maximum residues limits established by the Codex Alimentarius Commission.

6. HYGIENE

It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), the Code of Hygienic Practice for Milk and Milk Products (CAC/RCP 57-2004) and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice. The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

7. LABELLING

In addition to the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985) and the General Standard for the Use of Dairy Terms (CODEX STAN 206-1999), the following specific provisions apply:

7.1 NAME OF THE FOOD

The name of the food shall be:

Edible acid casein
Edible caseinate
Edible rennet casein

According to the descriptions in Section 2 and the compositions in Section 3.3.

The name of edible caseinate shall be accompanied by an indication of the cation used.

7.2 LABELLING OF NON-RETAIL CONTAINERS

Information required in Section 7 of this Standard and Sections 4.1 to 4.8 of the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985) and, if necessary, storage instructions, shall be given either on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

8. METHODS OF SAMPLING AND ANALYSIS

See CODEX STAN 234-1999.

APPENDIX**INFORMATION ON USUAL PATTERNS OF MANUFACTURING EDIBLE CASEIN PRODUCTS**

This text below is intended for voluntary application by commercial partners and not for application by governments.

1. OTHER QUALITY FACTORS**1.1 PHYSICAL APPEARANCE**

White to pale cream; free from lumps which do not break up under slight pressure.

1.2 FLAVOUR AND ODOUR

Not more than slight foreign flavours and odours. The product must be free from offensive flavours and odours.

2. PROCESSING AIDS

Acids used for precipitation purposes:

INS No	Name
260	Acetic acid, glacial
270	Lactic acid (L-, D- and DL-)
330	Citric acid
338	Orthophosphoric acid
507	Hydrochloric acid
513	Sulphuric acid

For renneting enhancement purposes:

509	Calcium chloride
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3. ADDITIONAL QUALITY FACTORS

	Rennet casein	Acid casein	Caseinates
Maximum sediment (scorched particles)	15 mg/25g	22.5 mg/25g	22.5 mg/25g (spray dried) 81.5 mg/25g (roller dried)

HEAVY METALS

The following limits apply:

<i>Metal</i>	<i>Maximum limit</i>
Copper	5 mg/kg
Iron	20 mg/kg (50 mg/kg in roller dried caseinates)

4. ADDITIONAL METHODS OF ANALYSIS

See CODEX STAN 234-1999.