

A23C

DAIRY PRODUCTS, e.g. MILK, BUTTER, CHEESE; MILK OR CHEESE SUBSTITUTES; MAKING THEREOF (obtaining protein compositions for foodstuffs, {e.g. from milk} , [A23J 1/00](#); preparation of peptides, e.g. of proteins, in general [C07K 1/00](#))

A23C 1/00

Concentration, evaporation or drying (products obtained thereby [A23C 9/00](#); making butter powder [A23C 15/14](#), cheese powder [A23C 19/086](#); evaporating in general [B01D 1/00](#))

Definition statement

This place covers:

Methods for concentration, evaporation or drying.

References

Limiting references

This place does not cover:

Products obtained by concentration, evaporation or drying	A23C 9/00
Preparation of butter powder	A23C 15/14
Cheese powder	A23C 19/086

Informative references

Attention is drawn to the following places, which may be of interest for search:

Evaporation in general	B01D 1/00
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A23C 1/01

Drying in thin layers

Definition statement

This place covers:

Drying in thin layers.

A23C 1/03

on drums or rollers

Definition statement

This place covers:

Drying in thin layers on drums or rollers.

A23C 1/04**by spraying into a gas stream****Definition statement***This place covers:*

Methods for concentration, evaporation or drying, by spraying into a gas stream (e.g. spray-drying).

A23C 1/045**{by simultaneously or separately spraying of two different liquid products other than water or steam; by separate addition of additives other than milk products or lactose in the spray-dryer}****Definition statement***This place covers:*

Methods for concentration, evaporation or drying, by spraying into a gas stream (e.g. spray-drying), wherein two different liquid products other than water or steam are sprayed simultaneously or separately, or wherein additives other than milk products or lactose are added separately in the spray-dried.

A23C 1/05**combined with agglomeration {granulation or coating}****Definition statement***This place covers:*

Methods for concentration, evaporation or drying, by spraying into a gas stream (e.g. spray-drying), combined with agglomeration (granulation or coating).

A23C 1/06**Concentration by freezing out the water****Definition statement***This place covers:*

Concentration by freezing out (and separating) the water.

A23C 1/08**Freeze-drying****Definition statement***This place covers:*

Concentration by freeze-drying.

Synonyms and Keywords*In patent documents, the following words/expressions are often used as synonyms:*

- "freeze-drying" and "lyophilisation"

A23C 1/10

Foam drying ([A23C 1/04](#), [A23C 1/08](#) take precedence)

Definition statement

This place covers:

Foam drying.

References

Limiting references

This place does not cover:

Spray-drying	A23C 1/04
Freeze-drying	A23C 1/08

A23C 1/12

Concentration by evaporation

Definition statement

This place covers:

Concentration by evaporation.

A23C 1/14

combined with other treatment ([A23C 3/00](#), [A23C 9/00](#) take precedence)

Definition statement

This place covers:

Methods for concentration, evaporation or drying combined with other treatment.

References

Limiting references

This place does not cover:

Preservation of milk or milk preparations	A23C 3/00
Preparation of specific dairy products	A23C 9/00

A23C 1/16

using additives

Definition statement

This place covers:

Methods for concentration, evaporation or drying combined with other treatment, wherein additive are used.

A23C 3/00

Preservation of milk or milk preparations (of cream [A23C 13/08](#); of butter [A23C 15/18](#); of cheese [A23C 19/097](#))

Definition statement

This place covers:

Methods and apparatus for preserving milk or milk preparations.

References**Limiting references**

This place does not cover:

Preservation of cream	A23C 13/08
Preservation of butter	A23C 15/18
Preservation of cheese	A23C 19/097

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preservation of non-alcoholic beverages	A23L 2/42
Preservation of foods in general	A23L 3/00

A23C 3/005

{Storing or packaging in a vacuum or in inert or sterile gaseous atmosphere (impregnation with inert gases [A23C 9/1524](#))}

Definition statement

This place covers:

Methods and apparatus for preserving milk or milk preparations by storing in a vacuum (i.e. reduced pressure) or inert or sterile gaseous atmosphere.

References**Limiting references**

This place does not cover:

Impregnation with inert gases	A23C 9/1524
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Preservation of foods in general using a controlled atmosphere	A23L 3/3445
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A23C 3/02**by heating ([A23C 3/07](#) takes precedence)****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by heating.

References**Limiting references***This place does not cover:*

Preservation by irradiation or wave treatment	A23C 3/07
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A23C 3/023**in packages****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by heating in packages or containers.

A23C 3/027**progressively transported through the apparatus****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by heating in packages or containers, which are progressively transported through the apparatus.

A23C 3/03**the materials being loose unpacked****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by heating the materials in a loose unpacked state.

A23C 3/031

**{Apparatus through which the material is transported non progressively;
Temperature-maintaining holding tanks or vats with discontinuous filling or
discharge}**

Definition statement

This place covers:

Apparatus adapted for preserving milk or milk preparations by heating the materials in a loose unpacked state, through which the material is transported non-progressively. Temperature-maintaining holding tanks or vats with discontinuous filling or discharge.

A23C 3/033

and progressively transported through the apparatus

Definition statement

This place covers:

Methods and apparatus for preserving milk or milk preparations by heating the materials in a loose unpacked state, wherein said materials are progressively transported through the apparatus.

A23C 3/0332

{in contact with multiple heating plates}

Definition statement

This place covers:

Methods and apparatus for preserving milk or milk preparations by heating the materials in a loose unpacked state, wherein said materials are progressively transported through the apparatus and maintained in contact with multiple heating plates (e.g. classical plate heat exchangers).

A23C 3/0335

{the milk being heated by electrical or mechanical means, e.g. by friction}

Definition statement

This place covers:

Methods and apparatus for preserving milk or milk preparations by heating the materials in a loose unpacked state, wherein said materials are progressively transported through the apparatus and heated by electrical and/or mechanical means, e.g. by friction.

A23C 3/0337

**{the milk flowing through with indirect heat exchange, containing rotating
elements, e.g. for improving the heat exchange}**

Definition statement

This place covers:

Methods and apparatus for preserving milk or milk preparations by heating the materials in a loose unpacked state, wherein said materials progressively flow through an apparatus with indirect heat exchange, said apparatus containing rotating elements (e.g. for improving heat exchange).

A23C 3/037**in direct contact with the heating medium, e.g. steam****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by heating the materials in a loose unpacked state, wherein said materials are progressively transported through the apparatus and brought in direct contact with the heating medium, heating medium being gaseous e.g. steam or liquid but not a part of the apparatus like plates, pipes, jackets, etc.

A23C 3/0375**{by pulverisation of the milk, including free falling film}****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by heating the materials in a loose unpacked state, wherein the milk or milk preparation is progressively transported through the apparatus and brought in direct contact with the heating medium, e.g. steam, and wherein the milk or milk preparation is pulverised or converted into a free falling film.

A23C 3/04**by freezing or cooling****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by freezing or cooling.

A23C 3/045**{Freezing in loose unpacked form}****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by freezing in loose unpacked form.

A23C 3/05**in packages****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by freezing or cooling in packages.

A23C 3/055**{Freezing in packages}****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by freezing in packages.

A23C 3/07**by irradiation, e.g. by microwaves {; by sonic or ultrasonic waves}****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by irradiation (e.g. microwaves) or by sonic or ultrasonic waves.

Special rules of classification

Heating of milk by electromagnetic means should be classified in this group as well.

A23C 3/073**{by sonic or ultrasonic waves}****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by sonic or ultrasonic waves.

A23C 3/076**{by ultraviolet or infrared radiation}****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by ultraviolet (UV) or infrared (IR) radiation.

A23C 3/08**by addition of preservatives (additions of microorganisms or enzymes
[A23C 9/12](#), of other substances [A23C 9/152](#))****Definition statement***This place covers:*

Methods and apparatus for preserving milk or milk preparations by addition of preservatives.

References

Limiting references

This place does not cover:

Addition of microorganisms or enzymes	A23C 9/12
Addition of other substances (additives)	A23C 9/152
Addition of antibiotics	A23C 9/1585

A23C 3/085

{Inorganic compounds, e.g. lactoperoxidase - H₂O₂ systems}

Definition statement

This place covers:

Methods and apparatus for preserving milk or milk preparations by addition of inorganic preservatives (e.g. lactoperoxidase - H₂O₂ systems).

A23C 7/00

Other dairy technology

Definition statement

This place covers:

Dairy technology not covered elsewhere.

References

Limiting references

This place does not cover:

Apparatus for homogenising milk	A01J 11/16
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A23C 7/02

Chemical cleaning of dairy apparatus (cleaning in general [B08B](#), e.g. [B08B 3/08](#)); Use of sterilisation methods therefor (sterilisation methods per se [A61L](#))

Definition statement

This place covers:

Methods and apparatus adapted for the chemical cleaning of dairy apparatus; use of sterilisation methods therefor.

References

Limiting references

This place does not cover:

Sterilisation methods in general	A61L
Cleaning in general	B08B , B08B 3/08

A23C 7/04

Removing unwanted substances {other than lactose or milk proteins} from milk (by filtering [A01J 9/02](#), [A01J 11/06](#))

Definition statement

This place covers:

Methods and apparatus adapted for removing unwanted substances other than lactose or milk proteins from milk by methods other than filtration.

References

Limiting references

This place does not cover:

Preservation of milk or milk preparations	A23C 3/00
Removing of unwanted substances from milk by filtration	A01J 9/02 , A01J 11/06

A23C 7/043

{using chemicals in liquid or solid state, e.g. flocculating, adsorbing or extracting agents ([A23C 9/146](#) and [A23C 9/148](#) take precedence)}

Definition statement

This place covers:

Methods and apparatus adapted for removing unwanted substances other than lactose or milk proteins from milk using chemicals in liquid or solid state, e.g. flocculating, adsorbing or extracting agents.

References

Limiting references

This place does not cover:

Use of ion-exchange in the production of milk preparations	A23C 9/146
Use of molecular sieve or gel filtration in the production of milk preparations	A23C 9/148

A23C 7/046

{by centrifugation without using chemicals, e.g. bactofugation; re-use of bactofugate}

Definition statement

This place covers:

Methods and apparatus adapted for removing unwanted substances other than lactose or milk proteins from milk without using chemicals, e.g. bactofugation; re-use of bactofugate.

A23C 9/00

Milk preparations; Milk powder or milk powder preparations ([A23C 21/06](#) takes precedence; preservation [A23C 3/00](#); chocolate milk [A23G 1/00](#); ice-cream or mixtures for preparation of ice-cream [A23G 9/00](#); puddings or dry powder puddings [A23L 9/10](#))

Definition statement

This place covers:

Methods and apparatus for preparing milk preparations, milk powder and milk powder preparations.

Milk preparations, milk powder and milk powder preparations per se.

References

Limiting references

This place does not cover:

Preservation of milk and milk preparations	A23C 3/00
Mixtures of whey with milk products or milk components	A23C 21/06
Chocolate milk	A23G 1/00
Ice-cream and mixtures for the preparation thereof	A23G 9/00
Puddings and dry powder puddings	A23L 9/10
Use of milk products or milk derivatives in the preparation of (salad) dressings	A23L 27/66

A23C 9/005

{Condensed milk; Sugared condensed milk ([A23C 1/06](#) and [A23C 1/12](#) take precedence)}

Definition statement

This place covers:

Condensed milk and sugared condensed milk as well as methods and apparatus adapted for their preparation.

References

Limiting references

This place does not cover:

Concentration by freezing out water	A23C 1/06
Concentration by evaporation	A23C 1/12

A23C 9/12

Fermented milk preparations; Treatment using microorganisms or enzymes (whey preparations [A23C 21/00](#))

Definition statement

This place covers:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes.

References

Limiting references

This place does not cover:

Cream preparations	A23C 13/00
Butter preparations	A23C 15/00
Buttermilk preparations	A23C 17/00
Cheese and cheese preparations	A23C 19/00
Whey preparations	A23C 21/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 9/1203

{Addition of, or treatment with, enzymes or microorganisms other than lactobacteriaceae}

Definition statement

This place covers:

Fermented milk preparations and treatment using microorganisms or enzymes, wherein enzymes or microorganisms other than lactobacteriaceae (i.e. lactic acid bacteria) are added and/or used for the treatment.

References

Limiting references

This place does not cover:

Fermentation using lactobacteriaceae (i.e. lactic acid bacteria)	A23C 9/123
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A23C 9/1206**{Lactose hydrolysing enzymes, e.g. lactase, beta-galactosidase}****Definition statement***This place covers:*

Fermented milk preparations and treatment using enzymes, wherein a lactose hydrolysing enzyme (e.g. lactase, beta-galactosidase) is added and/or used for the treatment.

A23C 9/1209**{Proteolytic or milk coagulating enzymes, e.g. trypsin}****Definition statement***This place covers:*

Fermented milk preparations and treatment using enzymes, wherein a proteolytic or milk coagulating enzyme (e.g. trypsin) is added and/or used for the treatment.

A23C 9/1213**{Oxidation or reduction enzymes, e.g. peroxidase, catalase, dehydrogenase}****Definition statement***This place covers:*

Fermented milk preparations and treatment using enzymes, wherein an oxidation and/or reduction enzyme (oxidoreductase, e.g. peroxidase, catalase, dehydrogenase) is added and/or used for the treatment.

A23C 9/1216**{Other enzymes}****Definition statement***This place covers:*

Fermented milk preparations and treatment using enzymes, wherein other enzymes than oxidoreductases, e.g. lipid acyltransferase, mutarotase are added and/or used for the treatment.

A23C 9/122**{Apparatus for preparing or treating fermented milk products}****Definition statement***This place covers:*

Apparatus for preparing or treating fermented milk products.

A23C 9/1223

{for making stirred yoghurt; Apparatus with agitating or stirring means; Continuous bulk fermentation, heating or cooling, i.e. continuous inlet and outlet flow of yoghurt}

Definition statement

This place covers:

Apparatus for preparing stirred yoghurt and apparatus with agitating or stirring means.

Continuous bulk fermentation, heating or cooling, i.e. continuous inlet and outlet flow of yoghurt.

A23C 9/1226

{for making set yoghurt in containers without stirring, agitation or transport of the yoghurt or the containers during incubation, heating or cooling; Domestic yoghurt apparatus without agitating means}

Definition statement

This place covers:

Apparatus for preparing set yoghurt in containers without stirring, agitation or transport of the yoghurt or the containers during incubation, heating or cooling.

Domestic yoghurt apparatus without agitating means.

A23C 9/123

using only microorganisms of the genus lactobacteriaceae; Yoghurt ([A23C 9/13](#) takes precedence)

Definition statement

This place covers:

Fermented milk preparations prepared using microorganisms of the genus Lactobacteriaceae (i.e. lactic acid bacteria) only, for example yoghurt.

References**Limiting references**

This place does not cover:

Using additives for preparing fermented milk products	A23C 9/13
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A23C 9/1232

{in powdered, granulated or dried solid form}

Definition statement

This place covers:

Powdered, granulated or dried solid fermented milk preparations prepared using microorganisms of the genus Lactobacteriaceae (i.e. lactic acid bacteria) only.

A23C 9/1234

{characterised by using a Lactobacillus sp. other than Lactobacillus Bulgaricus, including Bificlobacterium sp.}

Definition statement

This place covers:

Fermented milk preparations prepared using microorganisms of the genus Lactobacteriaceae (i.e. lactic acid bacteria) only, characterised by the use of Lactobacillus species other than bulgaricus, including Bifidobacterium species.

A23C 9/1236

{using Leuconostoc, Pediococcus or Streptococcus sp. other than Streptococcus Thermophilus; Artificial sour buttermilk in general ([A23C 9/1234](#) and [A23C 17/02](#) take precedence)}

Definition statement

This place covers:

Fermented milk preparations prepared with microorganisms of the genus Lactobacteriaceae (i.e. lactic acid bacteria) only, using Leuconostoc, Pediococcus, or a Streptococcus species other than thermophilus.

Artificial sour buttermilk in general.

References**Limiting references**

This place does not cover:

Fermentation using Lactobacillus other than bulgaricus	A23C 9/1234
Buttermilk treated with microorganisms	A23C 17/02

A23C 9/1238

{using specific L. bulgaricus or S. thermophilus microorganisms; using entrapped or encapsulated yoghurt bacteria; Physical or chemical treatment of L. bulgaricus or S. thermophilus cultures; Fermentation only with L. bulgaricus or only with S. thermophilus}

Definition statement

This place covers:

Fermented milk preparations prepared with microorganisms of the genus Lactobacteriaceae (i.e. lactic acid bacteria) only, using specific L. bulgaricus and/or S. thermophilus strains, or using entrapped or encapsulated yoghurt bacteria.

Physical and/or chemical treatment of L. bulgaricus and/or S. thermophilus cultures.

Fermentation only with L. bulgaricus or only with S. thermophilus.

A23C 9/127

using microorganisms of the genus lactobacteriaceae and other microorganisms or enzymes, e.g. kefir, koumiss ([A23C 9/13](#) takes precedence)

Definition statement

This place covers:

Fermented milk preparations prepared using microorganisms of the genus Lactobacteriaceae (i.e. lactic acid bacteria) and other microorganisms or enzymes. Examples of fermented milk preparations : kefir, koumiss.

References**Limiting references**

This place does not cover:

Using additives for preparing fermented milk products	A23C 9/13
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A23C 9/1275

{using only lactobacteriaceae for fermentation in combination with enzyme treatment of the milk product; using enzyme treated milk products for fermentation with lactobacteriaceae}

Definition statement

This place covers:

Fermented milk preparations prepared using only microorganisms of the genus Lactobacteriaceae (i.e. lactic acid bacteria) for fermentation, combined with enzyme treatment of the milk product.

Using enzyme treated milk products (as starting materials) for fermentation with Lactobacteriaceae.

A23C 9/13

using additives

Definition statement

This place covers:

Fermented milk preparations and treatment using microorganisms or enzymes, wherein additives, e.g. flavours, dyes, inorganic compounds, fruits are used.

A23C 9/1307

{Milk products or derivatives; Fruit or vegetable juices; Sugars, sugar alcohols, sweeteners; Oligosaccharides; Organic acids or salts thereof or acidifying agents; Flavours, dyes or pigments; Inert or aerosol gases; Carbonation methods}

Definition statement

This place covers:

Fermented milk preparations and treatment using microorganisms or enzymes, wherein

- milk products or milk derivatives

- fruit or vegetable juice
- sugars, sugar alcohols or sweeteners
- oligosaccharides
- organic acids or salts thereof, or acidifying agents
- flavours, dyes or pigments, and/or
- inert or aerosol gases are used as additive.

Carbonation methods.

A23C 9/1315

{Non-milk proteins or fats; Seeds, pulses, cereals or soja; Fatty acids, phospholipids, mono- or diglycerides or derivatives therefrom; Egg products}

Definition statement

This place covers:

Fermented milk preparations and treatment using microorganisms or enzymes, wherein

- non-milk proteins or fats
- seeds, pulses, cereals or soja
- fatty acids, phospholipids, mono- or diglycerides, or derivatives thereof and/or
- egg products

are used as additive.

A23C 9/1322

{Inorganic compounds; Minerals, including organic salts thereof, oligo-elements; Amino-acids, peptides, protein-hydrolysates or derivatives; Nucleic acids or derivatives; Yeast extract or autolysate; Vitamins; Antibiotics; Bacteriocins}

Definition statement

This place covers:

Fermented milk preparations and treatment using microorganisms or enzymes, wherein

- inorganic compounds
- minerals, including organic salts thereof, or oligoelements
- amino acids, peptides, protein hydrolysates, or derivatives thereof
- nucleic acids or derivatives thereof
- yeast extract or autolysate
- vitamins or derivatives thereof
- antibiotics or bacteriocins

are used as additive.

A23C 9/133**Fruit or vegetables****Definition statement**

This place covers:

Fermented milk preparations and treatment using microorganisms or enzymes, wherein fruit or vegetables (including processed products thereof, such as pulp, juice etc) are used as additive.

A23C 9/137**Thickening substances****Definition statement**

This place covers:

Fermented milk preparations and treatment using microorganisms or enzymes, wherein thickening substances are used as additive.

A23C 9/14**in which the chemical composition of the milk is modified by non-chemical treatment****Definition statement**

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of the milk (or milk derived material) using non-chemical treatment.

Relationships with other classification places

Subject-matter of general interest relating to chromatography can be found and should be classified in [B01D 15/08](#).

References**Limiting references**

This place does not cover:

Appliances for aerating or de-aerating milk	A01J 11/04
Milk centrifuges	B04B

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chromatography in general	B01D 15/08
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A23C 9/142

by dialysis, reverse osmosis or ultrafiltration ([A23C 9/144](#) takes precedence)

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of the milk (or milk derived material) using dialysis, reverse osmosis (RO), microfiltration (MF), ultrafiltration (UF), nanofiltration (NF) and/or similar techniques.

References**Limiting references**

This place does not cover:

Use of electrical means, e.g. electro dialysis (ED)	A23C 9/144
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A23C 9/1422

{by ultrafiltration, microfiltration or diafiltration of milk, e.g. for separating protein and lactose; Treatment of the UF permeate}

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of milk using microfiltration (MF), ultrafiltration (UF), nanofiltration (NF) and/or diafiltration, e.g. for separating protein and lactose.

Treatment of the MF/UF/NF permeate obtained thereby.

A23C 9/1425

{by ultrafiltration, microfiltration or diafiltration of whey, e.g. treatment of the UF permeate}

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of whey using microfiltration (MF), ultrafiltration (UF), nanofiltration (NF) and/or diafiltration, e.g. for separating protein and lactose.

Treatment of the MF/UF/NF permeate obtained thereby.

A23C 9/1427

{by dialysis, reverse osmosis or hyperfiltration, e.g. for concentrating or desalting}

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of the milk (or milk derived material) using dialysis, reverse osmosis (RO) or hyperfiltration, e.g. for concentrating or desalting.

A23C 9/144

by electrical means, e.g. electrodialysis

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of the milk (or milk derived material) using electrical means, e.g. electrodialysis (ED).

A23C 9/146

by ion-exchange

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of the milk (or milk derived material) using ion-exchange.

A23C 9/1465

{Chromatographic separation of protein or lactose fraction; Adsorption of protein or lactose fraction followed by elution}

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of the milk (or milk derived material) using ion-exchange for the chromatographic separation of protein or lactose fractions, or for the adsorption of protein or lactose fractions followed by elution.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Chromatography in general	B01D 15/08
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A23C 9/148

by molecular sieve or gel filtration {or chromatographic treatment ([A23C 9/1465](#) takes precedence)}

Definition statement

This place covers:

Methods for preparing milk preparations, milk powder and milk powder preparations by modifying the chemical composition of the milk (or milk derived material) using molecular sieve or gel filtration.

References**Limiting references**

This place does not cover:

Ion exchange chromatographic treatment	A23C 9/1465
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A23C 9/15

Reconstituted or recombined milk products containing neither non-milk fat nor non-milk proteins (containing thickening substances [A23C 9/154](#); mixtures of whey, with milk products or milk components [A23C 21/06](#))

Definition statement

This place covers:

Reconstituted or recombined milk preparations, milk powder and milk powder preparations containing neither non-milk fat nor non-milk proteins, and corresponding methods.

References**Limiting references**

This place does not cover:

Using thickening agents as additive	A23C 9/154
Whey based products containing milk products or milk components	A23C 21/06

A23C 9/1504

{Spreads, semi-solid products}

Definition statement

This place covers:

Spreads and semi-solid milk products containing neither non-milk fat nor non-milk proteins, obtained by reconstitution or recombination, and corresponding methods.

References**Limiting references**

This place does not cover:

Cultured butter based spreads	A23C 15/165
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A23C 9/1508

{Dissolving or reconstituting milk powder; Reconstitution of milk concentrate with water; Standardisation of fat content of milk}

Definition statement

This place covers:

Reconstituted or recombined milk preparations, milk powder and milk powder preparations containing neither non-milk fat nor non-milk proteins, prepared by

- dissolving or reconstituting milk powder
- reconstitution of milk concentrate with water, and/or
- standardisation of the fat content of milk,

and methods therefor.

A23C 9/1512

{containing isolated milk or whey proteins, caseinates or cheese; Enrichment of milk products with milk proteins in isolated or concentrated form, e.g. ultrafiltration retentate}

Definition statement

This place covers:

Reconstituted or recombined milk preparations, milk powder and milk powder preparations containing isolated milk or whey proteins, caseinates or cheese but no non-milk fat nor non-milk proteins.

Enrichment of milk products containing neither non-milk fat nor non-milk proteins with milk proteins in isolated or concentrated form (e.g. UF retentate).

A23C 9/1516

{Enrichment or recombination of milk (excepted whey) with milk fat, cream or butter without using isolated or concentrated milk proteins}

Definition statement

This place covers:

Enrichment or recombination of milk (whey being excepted) with milk fat, cream or butter without using isolated or concentrated milk proteins.

A23C 9/152

**containing additives (fermented milk preparations containing additives
[A23C 9/13](#))**

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing additives, and methods for their preparation.

References

Limiting references

This place does not cover:

Fermented milk preparations containing additives	A23C 9/13
Milk preparations treated with enzymes and/or microorganisms containing additives	A23C 9/13

A23C 9/1522

{Inorganic additives, e.g. minerals, trace elements; Chlorination or fluoridation of milk; Organic salts or complexes of metals other than sodium or potassium; Calcium enrichment of milk}

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing inorganic additives (e.g. minerals, trace elements), organic salts, or complexes of metals other than sodium and potassium, and methods for their preparation.

Chlorination, fluoridation, and calcium enrichment of milk.

A23C 9/1524

{Inert gases, noble gases, oxygen, aerosol gases; Processes for foaming}

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing inert gases, noble gases, oxygen or aerosol gases, and methods for their preparation.

Processes for foaming.

A23C 9/1526

{Amino acids; Peptides; Protein hydrolysates; Nucleic acids; Derivatives thereof}

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing amino acids, peptides, protein hydrolysates, nucleic acids, or derivatives thereof, and methods for their preparation.

A23C 9/1528

{Fatty acids; Mono- or diglycerides; Petroleum jelly; Paraffine; Phospholipids; Derivatives thereof}

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing fatty acids, mono- or diglycerides, vaseline, paraffine, phospholipids, or derivatives thereof, and methods for their preparation.

Special rules of classification

Only emulsifiers containing fatty acid residues, mono- or diglycerides, phospholipids, and compounds derived from these compounds are classified in this group.

A23C 9/154

containing thickening substances, eggs or cereal preparations; Milk gels

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing thickening substances, eggs or cereal preparations as well as milk gels, and methods for their preparation.

A23C 9/1542

{Acidified milk products containing thickening agents or acidified milk gels, e.g. acidified by fruit juices (fermentation [A23C 9/12](#))}

Definition statement

This place covers:

Acidified milk preparations containing thickening substances as well as acidified milk gels (e.g. acidified by fruit juices), and methods for their preparation.

References**Limiting references**

This place does not cover:

Acidification by lactic acid fermentation	A23C 9/12
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A23C 9/1544

{Non-acidified gels, e.g. custards, creams, desserts, puddings, shakes or foams, containing eggs or thickening or gelling agents other than sugar; Milk products containing natural or microbial polysaccharides, e.g. cellulose or cellulose derivatives; Milk products containing nutrient fibres}

Definition statement

This place covers:

Non-acidified gels, e.g. custards, creams, desserts, dairy puddings, shakes or foams, containing eggs or thickening or gelling agents other than sugar, and methods for their preparation.

Milk products containing natural or microbial polysaccharides (e.g. cellulose or cellulose derivatives, and methods for their preparation.

Milk products containing nutrient fibres, and methods for their preparation.

A23C 9/1546

{in powdered, granulated or dried solid form}

Definition statement

This place covers:

Powdered, granulated or dried solid

- non-acidified gels, e.g. custards, creams, desserts, dairy puddings, shakes or foams, containing eggs or thickening or gelling agents other than sugar
- milk products containing natural or microbial polysaccharides (e.g. cellulose or cellulose derivatives)
- milk products containing nutrient fibres,

and methods for their preparation.

A23C 9/1548

{Non-dried milk gels, creams or semi-solid products obtained by heating milk with a sugar without using gums, e.g. milk jam}

Definition statement

This place covers:

Non-dried milk gels, creams or semi-solid products obtained by heating milk with a sugar without using gums, e.g. milk jam, and methods for their preparation.

A23C 9/156

Flavoured milk preparations; {Addition of fruits, vegetables, sugars, sugar alcohols, sweeteners} ([A23C 9/154](#) takes precedence)

Definition statement

This place covers:

Flavoured milk preparations and methods for their preparation, in particular addition of fruits, vegetables, sugars, sugar alcohols and/or sweeteners.

References

Limiting references

This place does not cover:

Milk preparations containing thickeners and milk gels	A23C 9/154
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A23C 9/1565

{Acidified milk products, e.g. milk flavoured with fruit juices ([A23C 9/1542](#) takes precedence; fermentation [A23C 9/12](#))}

Definition statement

This place covers:

Acidified flavoured milk preparations (e.g. milk flavoured with fruit juice) and methods for their preparation.

References

Limiting references

This place does not cover:

Acidification by lactic acid fermentation	A23C 9/12
Acidified milk preparations containing thickeners and acidified milk gels	A23C 9/1542

A23C 9/158

containing vitamins or antibiotics

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing vitamins, antibiotics or bacteriocins, and methods for their preparation.

A23C 9/1585

{Antibiotics; Bacteriocins; Fungicides from microorganisms}

Definition statement

This place covers:

Milk preparations, milk powder and milk powder preparations containing antibiotics, bacteriocins or microorganism derived fungicides, and methods for their preparation.

A23C 9/16

Agglomerating or granulating milk powder; Making instant milk powder; Products obtained thereby ([A23C 1/05](#), [A23C 9/18](#) take precedence)

Definition statement

This place covers:

Methods and apparatus for agglomerating or granulating milk powder and for making instant milk powder, as well as the respective products.

References

Limiting references

This place does not cover:

Spray-drying combined with agglomeration, granulation or coating	A23C 1/05
Milk in dried and compressed or semi-solid form	A23C 9/18

A23C 9/18

Milk in dried and compressed or semi-solid form

Definition statement

This place covers:

Milk in dried and compressed or semi-solid form, and methods for its preparation.

A23C 9/20

Dietetic milk products not covered by groups [A23C 9/12](#) - [A23C 9/18](#)

Definition statement

This place covers:

Dietetic milk products not covered by groups [A23C 9/12](#) - [A23C 9/18](#).

A23C 9/203

{containing bifidus-active substances, e.g. lactulose; containing oligosaccharides}

Definition statement

This place covers:

Dietetic milk products containing bifidus-active substances (e.g. lactulose) or oligosaccharides (e.g. inulin).

A23C 9/206**{Colostrum; Human milk}****Definition statement***This place covers:*

Milk products based on colostrum or human milk.

A23C 11/00**Milk substitutes, e.g. coffee whitener compositions (cheese substitutes [A23C 20/00](#); butter substitutes [A23D](#); cream substitutes [A23L 9/20](#))****Definition statement***This place covers:*

Milk substitute products, e.g. coffee whiteners, and method for their preparation.

References**Limiting references***This place does not cover:*

Cheese substitutes	A23C 20/00
Butter substitutes	A23D
Cream substitutes	A23L 9/20

A23C 11/02**containing at least one non-milk component as source of fats or proteins ([A23C 19/055](#), [A23C 21/04](#) take precedence)****Definition statement***This place covers:*

Milk substitute products, e.g. coffee whiteners, containing at least one non-milk component as source of fats or proteins, and methods for their preparation.

References**Limiting references***This place does not cover:*

Use of non-milk fats or proteins for making cheese curd	A23C 19/055
Use of non-milk fats or proteins as ingredients in whey preparations	A23C 21/04

A23C 11/04

containing non-milk fats but no non-milk proteins ([A23C 11/08](#), [A23C 11/10](#) take precedence)

Definition statement

This place covers:

Milk substitute products, e.g. coffee whiteners, containing non-milk fats but no non-milk proteins, and method for their preparation.

References**Limiting references**

This place does not cover:

Milk substitutes containing caseinates but no other milk proteins nor milk fats	A23C 11/08
Milk substitutes containing or not lactose, but no milk components as sources of fats, carbohydrates or proteins	A23C 11/10

A23C 11/045

{obtained by mixing the non-fat components in powdered form with the fats or by dry mixing of the components}

Definition statement

This place covers:

Milk substitute products containing non-milk fats but no non-milk proteins, obtained by mixing the non-fat components in powdered form with the fats, or by dry mixing of the components, and methods for their preparation.

A23C 11/06

containing non-milk proteins ([A23C 11/08](#), [A23C 11/10](#) take precedence)

Definition statement

This place covers:

Milk substitute products containing non-milk proteins, and methods for their preparation.

References**Limiting references**

This place does not cover:

Milk substitutes containing caseinates but no other milk proteins nor milk fats	A23C 11/08
Milk substitutes containing or not lactose, but no milk components as sources of fats, carbohydrates or proteins	A23C 11/10

A23C 11/065**{Microbial proteins, inactivated yeast or animal proteins}****Definition statement***This place covers:*

Milk substitute products containing microbial proteins, inactivated yeast or animal proteins as non-milk proteins, and methods for their preparation.

A23C 11/08**containing caseinates but no other milk proteins nor milk fats****Definition statement***This place covers:*

Milk substitute products containing caseinates but no other milk proteins nor milk fats, and methods for their preparation.

A23C 11/10**containing or not lactose but no other milk components as source of fats, carbohydrates or proteins, e.g. soy milk****Definition statement***This place covers:*

Milk substitutes containing lactose or not and no other milk components as sources of fats, carbohydrates or proteins, and methods for their preparation.

A23C 11/103**{containing only proteins from pulses, oilseeds or nuts, e.g. soy or nut milk}****Definition statement***This place covers:*

Milk substitutes containing lactose or not, but no other milk components as sources of fats, carbohydrates or proteins, which contain proteins only from pulses, oilseeds or nuts, e.g. soy milk or almond milk, and methods for their preparation.

A23C 11/106**{Addition of, or treatment with, microorganisms ([A23C 20/025](#) and [A23L 11/37](#) take precedence)}****Definition statement***This place covers:*

Milk substitutes containing lactose or not, but no other milk components as sources of fats, carbohydrates or proteins, which contain proteins only from pulses, oilseeds or nuts, which are treated with microorganisms or to which microorganisms are added, and methods for their preparation.

References

Limiting references

This place does not cover:

Whey or whey preparation obtained by treatment with lactase	A23C 21/023
Foods obtained by removing butter or other undesirable substances from pulses, legumes or oilseeds using microorganisms	A23L 11/37

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 13/00

Cream; Cream preparations (ice-cream [A23G 9/00](#)); Making thereof (coffee whitener compositions [A23C 11/00](#); cream substitutes [A23L 9/20](#))

Definition statement

This place covers:

Cream, cream preparations and methods for their preparation.

References

Limiting references

This place does not cover:

Dessert type creams obtained by adding thickening agents, eggs or cereal preparations to milk	A23C 9/1544
Coffee whiteners	A23C 11/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tanks for treating cream	A01J 13/00
Cream substitutes	A23L 9/20

A23C 13/08

Preservation

Definition statement

This place covers:

Preservation of cream and cream preparations.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preservation of milk and milk preparations	A23C 3/00
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A23C 13/085

{Freezing; Subsequent melting}

Definition statement

This place covers:

Preservation of cream and cream preparations by freezing, and melting subsequent to freezing.

A23C 13/10

by addition of preservatives ([A23C 13/14](#), [A23C 13/16](#) take precedence)

Definition statement

This place covers:

Preservation of cream and cream preparations by addition of preservatives.

References

Limiting references

This place does not cover:

Cream preparations containing milk products or non-fat milk components	A23C 13/14
Cream preparations containing, or treated with, microorganisms, enzymes or antibiotics, and sour cream	A23C 13/16

A23C 13/12

Cream preparations (ice-cream [A23G 9/00](#))

Definition statement

This place covers:

Cream preparations (other than ice cream) and methods for their preparation.

References

Limiting references

This place does not cover:

Ice cream	A23G 9/00
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A23C 13/125

{in powdered, granulated or solid form}

Definition statement

This place covers:

Cream preparations (other than ice cream) in powdered, granulated or solid form, and methods for their preparation.

A23C 13/14

containing milk products or {non-fat} milk components

Definition statement

This place covers:

Cream preparations (other than ice cream) containing milk products or non-fat milk components, and methods for their preparation.

A23C 13/16

containing, or treated with, microorganisms, enzymes, or antibiotics; Sour cream

Definition statement

This place covers:

Cream preparations (other than ice cream) containing, or treated with, microorganisms, enzymes or antibiotics. Sour cream and methods for the preparation thereof.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 13/165**{Making sour cream by chemical or physical means only}****Definition statement***This place covers:*

Preparation of sour cream by chemical or physical means only.

A23C 15/00**Butter; Butter preparations; Making thereof (butter substitutes [A23D](#))****Definition statement***This place covers:*

Butter, methods for preparing butter, butter preparations (comprising butter as main component) and methods for preparing butter preparations.

References**Limiting references***This place does not cover:*

Apparatus for manufacturing butter	A01J 15/00
Butter substitutes	A23D

Informative references*Attention is drawn to the following places, which may be of interest for search:*

Apparatus for manufacturing butter	A01J 15/00
Kneading machines for butter, or the like	A01J 17/00
Hand devices for forming slabs of butter, or the like	A01J 19/00
Machines for forming slabs of butter, or the like	A01J 21/00
Devices for dividing bulk butter, or the like	A01J 25/00

A23C 15/02**Making thereof****Definition statement***This place covers:*

Methods for making butter and butter preparations.

A23C 15/04**from butter oil or anhydrous butter****Definition statement***This place covers:*

Methods for making butter and butter preparations from butter oil or anhydrous butter.

A23C 15/06

Treating cream {or milk} prior to phase inversion

Definition statement

This place covers:

Methods for preparing butter and butter preparations, wherein cream (or milk) is treated prior to phase inversion.

A23C 15/065

{Addition of a treatment with microorganisms or enzymes; Addition of cultured milk products}

Definition statement

This place covers:

Methods for preparing butter and butter preparations, wherein, prior to phase inversion, cream (or milk) is treated with microorganisms or enzymes, or wherein, prior to phase inversion, microorganisms, enzymes or cultured milk products are added thereto.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 15/12

Butter preparations

Definition statement

This place covers:

Butter preparations, i.e. dairy type food products based on butter comprising butter as main ingredient, and method for their manufacture.

References

Limiting references

This place does not cover:

Sauces	A23L 23/00
Use of milk products or milk derivatives in the preparation of (salad) dressings	A23L 27/66

A23C 15/123

{Addition of microorganisms or cultured milk products; Addition of enzymes; Addition of starter cultures other than distillates}

Definition statement

This place covers:

Methods for making butter preparations (i.e. dairy type food products based on butter comprising butter as main ingredient) wherein microorganisms, cultured milk products, enzymes or starter cultures other than distillates are added, and butter preparations obtained thereby.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 15/126

{Butter containing a minority of vegetable oils; Enrichment of butter with fatty acids}

Definition statement

This place covers:

Methods for making butter preparations (i.e. dairy type food products based on butter comprising butter as main ingredient) containing a minority of vegetable oils, and enrichment of butter with fatty acids, as well as butter preparations obtained thereby.

A23C 15/14

Butter powder; Butter oil, i.e. melted butter, e.g. ghee {; Anhydrous butter}

Definition statement

This place covers:

Butter powder, butter oil (i.e. melted butter, e.g. ghee), anhydrous butter, and methods for the preparation thereof.

A23C 15/145

{Removal of steroids, e.g. cholesterol or free acids; Fractionation of anhydrous milkfat by extraction with solvents other than solvent crystallisation or with supercritical gases or by distillation}

Definition statement

This place covers:

Methods for preparing butter powder, butter oil (i.e. melted butter, e.g. ghee) and anhydrous butter, wherein steroids (e.g. cholesterol) or free fatty acids are removed, or wherein anhydrous milkfat is fractionated by extraction with solvents other than solvent crystallisation, with supercritical gases, or by distillation, and butter powder, butter oil (i.e. melted butter, e.g. ghee) and anhydrous butter thus prepared.

A23C 15/16

Butter having reduced fat content

Definition statement

This place covers:

Methods for preparing butter having a reduced fat content and butter thus prepared.

A23C 15/165

{prepared by addition of microorganisms; Cultured spreads}

Definition statement

This place covers:

Butter having a reduced fat content obtained by addition of microorganisms, including cultured spreads.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
Dairy spreads not based on butter	A23C 9/1504
Propagation of microorganisms in general	C12N 1/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Cultured spread	This group only relates to butter based cultured spreads.
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A23C 15/18

Preservation

Definition statement

This place covers:

Preservation of butter and butter preparations.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preservation of milk and milk preparations	A23C 3/00
Preservation of foods in general	A23L 3/00

A23C 15/20

by addition of preservatives {or antioxidants}

Definition statement

This place covers:

Preservation of butter and butter preparations using preserving agents or antioxidants.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preservation of foods in general with preserving chemicals	A23L 3/34
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A23C 17/00

Buttermilk; Buttermilk preparations ([A23C 9/14](#) takes precedence; preservation [A23C 3/00](#))

Definition statement

This place covers:

Buttermilk and buttermilk preparations and methods for their preparation.

References

Limiting references

This place does not cover:

Preservations	A23C 3/00
Methods wherein the chemical composition of the milk is modified by non-chemical treatment (e.g. ultrafiltration)	A23C 9/14

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparation of butter	A23C 15/00
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A23C 17/02

containing, or treated with, microorganisms or enzymes

Definition statement

This place covers:

Buttermilk and buttermilk preparations containing, or treated with, microorganisms or enzymes, and methods for their preparation.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 19/00

Cheese; Cheese preparations; Making thereof (cheese substitutes [A23C 20/00](#); casein [A23J 1/20](#))

Definition statement

This place covers:

Cheese and cheese substitutes and methods for their manufacture.

References**Limiting references**

This place does not cover:

Cheese substitutes	A23C 20/00
Apparatus for use in cheese-making	A01J 25/00
Milk derived casein per se and methods for obtaining milk derived casein	A23J 1/20

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
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Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 19/02

Making cheese curd

Definition statement

This place covers:

Methods for preparing cheese curd (i.e. coagulated / clotted milk).

References

Limiting references

This place does not cover:

Apparatus for making cheese curd	A01J 25/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparation of milk derived casein	A23J 1/202
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Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Curd formation	Curdling, clotting, coagulation of milk Casein precipitation
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A23C 19/024

using continuous procedure

Definition statement

This place covers:

Methods for preparing cheese curd using a continuous procedure.

A23C 19/0245

{with immobilized enzymes or microorganisms}

Definition statement

This place covers:

Methods for preparing cheese curd using a continuous procedure combined with immobilised enzymes or microorganisms.

A23C 19/028**without substantial whey separation from coagulated milk****Definition statement***This place covers:*

Methods for preparing cheese curd wherein whey separation is completely avoided; processes wherein whey separation is avoided to a significant extent or where at least less whey is separated than in standard processes

A23C 19/0285**{by dialysis or ultrafiltration}****Definition statement***This place covers:*

Methods for preparing cheese curd without separation of substantial amounts of whey from the coagulated milk, wherein dialysis or ultrafiltration is applied.

A23C 19/032**characterised by the use of specific microorganisms, or enzymes of microbial origin****Definition statement***This place covers:*

Methods for preparing cheese curd wherein specific microorganisms, or enzymes of microbial origin are used.

A23C 19/0321**{Propionic acid bacteria}****Definition statement***This place covers:*

Methods for preparing cheese curd wherein propionic acid bacteria / Propionibacteria are used.

A23C 19/0323**{using only lactic acid bacteria, e.g. *Pediococcus* and *Leuconostoc* species; Bifidobacteria; Microbial starters in general (using moulds [A23C 19/0682](#))}****Definition statement***This place covers:*

Methods for preparing cheese curd wherein only lactic acid bacterial (including *Pediococcus*, *Leuconostoc*, and Bifidobacteria) are used.

Use of microbial starters in general for making cheese curd.

References

Limiting references

This place does not cover:

Use of moulds for cheesemaking	A23C 19/0682
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A23C 19/0325

{using yeasts, alone or in combination with lactic acid bacteria or with fungi, without using other bacteria}

Definition statement

This place covers:

Methods for preparing cheese curd wherein yeasts are used, either alone or in combination with lactic acid bacteria or with fungi, without using other (i.e. non-lactic acid) bacteria.

A23C 19/0326

{Rennet produced by fermentation, e.g. microbial rennet; Rennet produced by genetic engineering}

Definition statement

This place covers:

Methods for preparing cheese curd wherein rennet produced by fermentation (e.g. microbial rennet) or by genetic engineering is used.

A23C 19/0328

{Enzymes other than milk clotting enzymes, e.g. lipase, beta-galactosidase}

Definition statement

This place covers:

Methods for preparing cheese curd wherein enzymes other than milk-clotting enzymes are used (e.g. lipase and beta-galactosidase).

A23C 19/04

**characterised by the use of specific enzymes of vegetable or animal origin
([A23C 19/032](#) takes precedence)**

Definition statement

This place covers:

Methods for preparing cheese curd wherein enzymes of plant, vegetable or animal origin are used.

References

Limiting references

This place does not cover:

Preparation of cheese curd using microbial enzymes	A23C 19/032
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A23C 19/041

{Proteolytic or milk clotting enzymes from plants or vegetables, e.g. papain, ficin, bromelain}

Definition statement

This place covers:

Methods for preparing cheese curd wherein proteolytic or milk clotting enzymes from plants or vegetables are used (e.g. papain, ficin, bromelain).

A23C 19/043

{Enzymes other than proteolytic enzymes or milk clotting enzymes, e.g. lipase, lysozyme}

Definition statement

This place covers:

Methods for preparing cheese curd wherein enzymes of plant/vegetable/animal origin other than proteolytic or milk clotting are used (e.g. lipase, lysozyme).

A23C 19/045

Coagulation of milk without rennet or rennet substitutes {followed by whey separation}

Definition statement

This place covers:

Methods for preparing cheese curd by coagulation of milk without rennet or rennet substitutes, which is followed by whey separation.

A23C 19/0455

{Coagulation by direct acidification without fermentation of the milk, e.g. by chemical or physical means}

Definition statement

This place covers:

Methods for preparing cheese curd by coagulation of milk without rennet or rennet substitutes, which is followed by whey separation, characterised in that the milk is directly acidified without fermentation (e.g. by chemical or physical means).

A23C 19/05

Treating milk before coagulation; Separating whey from curd ([A23C 19/097](#), [A23C 19/045](#)) take precedence)

Definition statement

This place covers:

Methods for preparing cheese curd, wherein milk is treated before coagulation. Separation of whey from curd.

References

Limiting references

This place does not cover:

Treatment of milk by ultrafiltration, microfiltration or diafiltration	A23C 9/1422
Coagulation of milk without rennet or rennet substitutes	A23C 19/045
Preservation of cheese and cheese preparations (e.g. pasteurisation)	A23C 19/097

A23C 19/051

{Acidifying by combination of acid fermentation and of chemical or physical means}

Definition statement

This place covers:

Methods for preparing cheese curd, wherein before coagulation the milk is acidified by acid fermentation combined with chemical or physical means, e.g. the acidification of the milk before the coagulation of the casein and the formation of the curd is performed by combining lactic acid fermentation and chemical or physical means like hydrochloric acid or electrolysis

A23C 19/052

{Acidifying only by chemical or physical means}

Definition statement

This place covers:

Methods for preparing cheese curd, wherein before coagulation the milk is acidified only by chemical or physical means.

A23C 19/053

{Enrichment of milk with whey, whey components, substances recovered from separated whey, isolated or concentrated proteins from milk}

Definition statement

This place covers:

Methods for preparing cheese curd, wherein before coagulation of the milk, whey, whey components, substances recovered from separated whey, or isolated or concentrated milk proteins (e.g. WPC, WPI) are added to the milk (thereby "enriching" the milk).

A23C 19/054

{using additives other than acidifying agents, NaCl, CaCl₂, dairy products, proteins, fats, enzymes or microorganisms}

Definition statement

This place covers:

Methods for preparing cheese curd, wherein before coagulation, the milk is treated with additives other than the following: acidifying agents, NaCl, CaCl₂, dairy product, proteins, fats, enzymes or microorganisms.

A23C 19/055

Addition of non-milk fats or non-milk proteins {, polyol fatty acid polyesters or mineral oils}

Definition statement

This place covers:

Methods for preparing cheese curd, wherein non-milk fats or proteins are added (including polyol fatty acid polyesters or mineral oils).

A23C 19/06

**Treating cheese curd after whey separation; Products obtained thereby
([A23C 19/097](#) takes precedence)**

Definition statement

This place covers:

Methods for treating cheese curd after whey separation (including treatment of cheese curd prepared without whey separation) and products obtained thereby.

References**Limiting references**

This place does not cover:

Preservation of cheese and cheese preparations	A23C 19/097
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A23C 19/061

{Addition of, or treatment with, microorganisms ([A23C 19/0682](#) takes precedence)}

Definition statement

This place covers:

Methods for treating cheese curd after whey separation (including treatment of cheese curd prepared without whey separation) wherein microorganisms are added to the curd, or used for the treatment thereof, respectively, and products obtained thereby.

References**Limiting references**

This place does not cover:

Mould-ripened or bacterial surface ripened cheese	A23C 19/0682
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A23C 19/062

{using only lactic acid bacteria, e.g. pediococcus, leconostoc or bifidus sp., or propionic acid bacteria; Treatment with non-specified acidifying bacterial cultures}

Definition statement

This place covers:

Methods for treating cheese curd after whey separation (including treatment of cheese curd prepared without whey separation) wherein only lactic or propionic acid bacteria (including *Pediococcus*, *Leuconostoc*, *Bifidobacteria*) or non-specified acidifying bacterial cultures are added to the curd, or used for the treatment thereof, respectively, and products obtained thereby.

A23C 19/063

{Addition of, or treatment with, enzymes or cell-free extracts of microorganisms}

Definition statement

This place covers:

Methods for treating cheese curd after whey separation (including treatment of cheese curd prepared without whey separation) wherein enzymes or cell-free extracts of microorganisms are added to the curd, or used for the treatment thereof, respectively, and products obtained thereby.

A23C 19/064**Salting****Definition statement**

This place covers:

Methods for salting cheese curd after whey separation (including treatment of cheese curd prepared without whey separation) and products obtained thereby.

A23C 19/068**Particular types of cheese****Definition statement**

This place covers:

Particular types of cheese, such as Cheddar, Mozzarella, cottage cheese and process cheese, as well as aspects of the methods for preparing said particular types of cheese which are associated specifically with the particularity thereof, and not covered elsewhere.

References**Limiting references**

This place does not cover:

Making cheese curd in general	A23C 19/02
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A23C 19/0682**{Mould-ripened or bacterial surface ripened cheeses}****Definition statement***This place covers:*

Mould-ripened or bacterial surface ripened cheese, as well as aspects of the methods for their preparation associated specifically with mould or bacterial surface ripening, and not covered elsewhere.

A23C 19/0684**{Soft uncured Italian cheeses, e.g. Mozzarella, Ricotta, Pasta filata cheese; Other similar stretched cheeses}****Definition statement***This place covers:*

Soft uncured Italian type cheeses, pasta filata cheese (e.g. Mozzarella) and other similar stretched cheeses, as well as aspects of the methods for the preparation thereof associated specifically with the characteristic properties of said cheeses, and not covered elsewhere.

A23C 19/0686**{Cheese from whey, e.g. mysost}****Definition statement***This place covers:*

Cheese from whey (e.g. Ricotta, Mysost) as well as aspects of the methods for the preparation thereof associated specifically with the characteristic properties of said cheeses, and not covered elsewhere.

A23C 19/0688**{Hard cheese or semi-hard cheese with or without eyes ([A23C 19/072](#) takes precedence)}****Definition statement***This place covers:*

Hard or semi-hard cheese other than cheddar, as well as aspects of the methods for the preparation thereof associated specifically with the characteristic properties of said cheeses, and not covered elsewhere.

References**Limiting references***This place does not cover:*

Cheddar type and similar hard cheese without eyes	A23C 19/072
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A23C 19/072

Cheddar type {or similar hard cheeses without eyes}

Definition statement

This place covers:

Cheddar type cheese and similar hard cheeses without eyes, as well as aspects of the methods for the preparation thereof associated specifically with the characteristic properties of said cheeses, and not covered elsewhere.

References

Limiting references

This place does not cover:

Hard and semi-hard cheese other than cheddar type or similar hard cheeses without eyes	A23C 19/0688
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Special rules of classification

The wording "similar hard cheeses" in the title is somewhat vague. It is prefer to classify only cheddar cheese and cheeses explicitly designated as being similar to cheddar in this group.

A23C 19/076

Soft unripened cheese, e.g. cottage or cream cheese

Definition statement

This place covers:

Soft unripened cheese (e.g. cottage cheese, cream cheese, fresh cheese), as well as aspects of the methods for the preparation thereof associated specifically with the characteristic properties of said cheeses, and not covered elsewhere.

Special rules of classification

Please note that process cheese is often incorrectly designated as cream cheese. Process cheese preparation usually involves melting of cheese curd (usually at about 60-65 °C or more) and emulsification. If both steps are not mentioned, the maximum temperature at which the curd is treated and the duration of the heat treatment should be considered for delimiting process cheese from cream cheese.

A23C 19/0765

{Addition to the curd of additives other than acidifying agents, dairy products, proteins except gelatine, fats, enzymes, microorganisms, NaCl, CaCl₂ or KCl; Foamed fresh cheese products}

Definition statement

This place covers:

Methods for preparing soft unripened cheese (e.g. cottage cheese, cream cheese) wherein an additive other than acidifying agents, dairy products, proteins - except gelatine -, fats, enzymes, microorganisms, NaCl, CaCl₂ or KCl is used, as well as aspects of the methods for the preparation thereof associated specifically with the characteristic properties of said cheese, and not covered elsewhere. Foamed fresh cheese products (i.e. fresh cheese products containing gas as additive).

A23C 19/08

Process cheese preparations; Making thereof, e.g. melting, emulsifying, sterilizing

Definition statement

This place covers:

Process cheese preparations and methods for their preparation (e.g. melting, emulsifying, sterilising).

References

Limiting references

This place does not cover:

Cream cheese	A23C 19/076
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Special rules of classification

Please note that process cheese is often incorrectly designated as cream cheese. Process cheese preparation usually involves melting of cheese curd (usually at about 60-65 °C or more) and emulsification. If both steps are not mentioned, the maximum temperature at which the curd is treated and the duration of the heat treatment should be considered for delimiting process cheese from cream cheese.

A23C 19/081

{Surface melting}

Definition statement

This place covers:

Surface melting used in the preparation of process cheese preparations.

A23C 19/082

Adding substances to the curd before or during melting; Melting salts

Definition statement

This place covers:

Methods for preparing process cheese preparations, wherein substances are added to the curd or cheese before or during melting, as well as melting salts.

A23C 19/084

Treating the curd, or adding substances thereto, after melting (adding non-milk components [A23C 19/093](#))

Definition statement

This place covers:

Methods for preparing process cheese preparations, wherein after melting the curd is treated, or substances are added thereto.

References

Limiting references

This place does not cover:

Addition of non-milk components to process cheese preparations after melting	A23C 19/093
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A23C 19/086

Cheese powder; Dried cheese preparations

Definition statement

This place covers:

Cheese powder and dried cheese preparations.

A23C 19/09

Other cheese preparations; Mixtures of cheese with other foodstuffs (preservation [A23C 19/097](#))

Definition statement

This place covers:

Other cheese preparations and mixtures of cheese with other foodstuffs, as well as methods for their preparation.

References

Limiting references

This place does not cover:

Preservation of cheese and cheese preparations	A23C 19/097
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A23C 19/0904

{Liquid cheese products, e.g. beverages, sauces}

Definition statement

This place covers:

Liquid cheese products, e.g. cheese sauces and cheese beverages, as well as methods for their preparation.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sauces in general	A23L 23/00
Dressings containing milk products or milk derivatives	A23L 27/66

A23C 19/0908**{Sliced cheese; Multilayered or stuffed cheese; Cheese loaves}****Definition statement***This place covers:*

Sliced, multilayered or stuffed cheese, and cheese loaves, as well as methods for their preparation.

A23C 19/0912**{Fried, baked or roasted cheese products, e.g. cheese cakes; Foamed cheese products, e.g. soufflés; Expanded cheese in solid form}****Definition statement***This place covers:*

Fried, baked or roasted cheese products (e.g. cheese cakes), foamed cheese products (e.g. soufflés), and expanded cheese in solid form.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Foamed fresh cheese products	A23C 19/0765
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A23C 19/0917**{Addition, to cheese or curd, of whey, whey components, substances recovered from separated whey, isolated or concentrated proteins from milk}****Definition statement***This place covers:*

Other cheese preparations and mixtures of cheese with other foodstuffs obtained by addition, to cheese or curd, of whey, whey components, substances recovered from separated whey, or isolated or concentrated proteins from milk.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Addition to milk of whey, whey components, substances recovered from separated whey, or isolated or concentrated proteins from milk before coagulation	A23C 19/053
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A23C 19/0921

{Addition, to cheese or curd, of minerals, including organic salts thereof, trace elements, amino acids, peptides, protein hydrolysates, nucleic acids, yeast extracts or autolysate, vitamins or derivatives of these compounds}

Definition statement

This place covers:

Other cheese preparations and mixtures of cheese with other foodstuffs obtained by addition, to cheese or curd, of minerals (including organic salts thereof), trace elements, amino acids, peptides, protein hydrolysates, nucleic acids, yeast extracts or yeast autolysate, vitamins, or derivatives of these compounds.

A23C 19/0925

{Addition, to cheese or curd, of colours, synthetic flavours or artificial sweeteners, including sugar alcohols}

Definition statement

This place covers:

Other cheese preparations and mixtures of cheese with other foodstuffs obtained by addition, to cheese or curd, of colorants, synthetic flavours, or artificial sweeteners, including sugar alcohols.

A23C 19/093

Addition of non-milk fats or non-milk proteins {, polyol fatty acid polyesters or mineral oils}

Definition statement

This place covers:

Other cheese preparations and mixtures of cheese with other foodstuffs obtained by addition of non-milk proteins or non-milk fats, including polyol fatty acid polyesters or mineral oils.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Addition to milk of non-milk proteins or non-milk fats, including polyol fatty acid polyesters or mineral oils, before coagulation	A23C 19/055
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A23C 19/097

Preservation

Definition statement

This place covers:

Preservation of cheese curd, cheese, cheese preparations, and mixtures of cheese with other foodstuffs.

A23C 19/0973**{Pasteurisation; Sterilisation; Hot packaging}****Definition statement***This place covers:*

Preservation of cheese, cheese preparations, and mixtures of cheese with other foodstuffs by pasteurisation or sterilisation, as well as hot packaging methods.

A23C 19/0976**{Freezing; Treating cheese in frozen state; Thawing of frozen cheese}****Definition statement***This place covers:*

Preservation of cheese, cheese preparations, and mixtures of cheese with other foodstuffs by freezing. Treatment of cheese in the frozen state and thawing of frozen cheese.

A23C 19/10**Addition of preservatives {(enzymes or microorganisms, see [A23C 19/032](#), [A23C 19/04](#), [A23C 19/061](#) and [A23C 19/063](#))}****Definition statement***This place covers:*

Preservation of cheese, cheese preparations, and mixtures of cheese with other foodstuffs using preserving agents.

References**Limiting references***This place does not cover:*

Use of enzymes or microorganisms in cheese making	A23C 19/032 , A23C 19/04 , A23C 19/061 , A23C 19/063
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A23C 19/105**{Inorganic compounds; Inert or noble gases; Carbon dioxide}****Definition statement***This place covers:*

Preservation of cheese, cheese preparations, and mixtures of cheese with other foodstuffs using inorganic compounds, inert or noble gases, or carbon dioxide as preserving agents.

A23C 19/11

of antibiotics {or bacteriocins}

Definition statement

This place covers:

Preservation of cheese, cheese preparations, and mixtures of cheese with other foodstuffs using antibiotics or bacteriocins (e.g. nisin) as preserving agents.

A23C 19/14

Treating cheese after having reached its definite form, e.g. ripening, smoking (preservation [A23C 19/097](#))

Definition statement

This place covers:

Methods for treating cheese wherein the cheese is treated after reaching its definite form, e.g. ripening or smoking.

References

Limiting references

This place does not cover:

Preservation of cheese, cheese preparations, and mixtures of cheese with other foodstuffs.	A23C 19/097
After-treatment of cheese; Marking, coating, milling or recasting the cheese.	A01J 27/00
Smoking of meat, sausages, fish	A23B 4/044

A23C 19/16

Covering the cheese surface, e.g. with paraffin wax

Definition statement

This place covers:

Methods for treating cheese after reaching its definite form by covering the cheese surface (e.g. with paraffin wax).

References

Limiting references

This place does not cover:

After-treatment of cheese; Marking, coating, milling or recasting the cheese.	A01J 27/00
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A23C 19/163

{with a non-edible liquid or semi-liquid coating, e.g. wax, polymer dispersions (in combination with an edible coating [A23C 19/16](#))}

Definition statement

This place covers:

Methods for treating cheese after reaching its definite form by covering the cheese surface with a non-edible (semi-) liquid coating, e.g. wax or polymer dispersions.

References

Limiting references

This place does not cover:

Methods for treating cheese after reaching its definite form by covering the cheese surface with a non-edible (semi-) liquid coating in combination with an edible coating	A23C 19/16
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A23C 19/166

{with non-edible preformed foils, films or bandages}

Definition statement

This place covers:

Methods for treating cheese after reaching its definite form by covering the cheese surface with non-edible preformed foils, films or bandages.

A23C 20/00

Cheese substitutes ([A23C 19/055](#), [A23C 19/093](#) take precedence)

Definition statement

This place covers:

Cheese substitutes and methods for their preparation.

References

Limiting references

This place does not cover:

Addition of non-milk proteins or non-milk fats (including polyol fatty acid polyesters or mineral oils) to cheese milk	A23C 19/055
Other cheese preparations and mixtures of cheese with other foodstuffs obtained by addition of non-milk proteins or non-milk fats, including polyol fatty acid polyesters or mineral oils.	A23C 19/093

A23C 20/005**{mainly containing proteins from pulses or oilseeds, e.g. soy curd, tofu}****Definition statement***This place covers:*

Cheese substitutes containing proteins mainly from pulses or oilseeds, e.g. tofu, soy curd, and methods for their preparation.

References**Limiting references***This place does not cover:*

Cheese substitutes containing neither milk components, nor caseinate, nor lactose, as protein, fat or carbohydrate source	A23C 20/02
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A23C 20/02**containing neither milk components, nor caseinate, nor lactose, as sources of fats, proteins or carbohydrates****Definition statement***This place covers:*

Cheese substitutes containing neither milk components, nor caseinate, nor lactose, as protein, fat or carbohydrate source, and methods for their preparation.

A23C 20/025**{mainly containing proteins from pulses or oilseeds, e.g. soy curd, tofu}****Definition statement***This place covers:*

Cheese substitutes containing neither milk components, nor caseinate, nor lactose, as protein, fat or carbohydrate source, and containing proteins mainly from pulses or oilseeds (e.g. tofu, soy curd), as well as methods for their preparation.

A23C 21/00**Whey; Whey preparations ([A23C 1/00](#), [A23C 3/00](#), [A23C 9/14](#) take precedence)****Definition statement***This place covers:*

Whey and whey preparations, and methods for their preparation.

References**Limiting references***This place does not cover:*

Methods for concentration, evaporation or drying	A23C 1/00
Preservation of milk and milk preparations	A23C 3/00

Methods for preparing milk (powder) preparations wherein the chemical composition of the milk [or whey] is modified by non-chemical treatment (e.g. ultrafiltration, microfiltration)	A23C 9/14
Obtaining dairy proteins from foodstuffs from milk or whey (e.g. casein or caseinates)	A23J 1/20

A23C 21/02

containing, or treated with, microorganisms or enzymes

Definition statement

This place covers:

Whey and whey preparations containing or treated with, respectively, microorganisms or enzymes, as well as methods for their preparation.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermented milk preparations and/or treatment of milk using microorganisms or enzymes	A23C 9/12
Propagation of microorganisms in general	C12N 1/00
Enzymes in general	C12N 9/00
Mutation or genetic engineering of microorganisms in general	C12N 15/00
Processes using microorganisms in general	C12R 1/00

A23C 21/023

{Lactose hydrolysing enzymes, e.g. lactase, B-galactosidase}

Definition statement

This place covers:

Whey and whey preparations containing or treated with, respectively, lactose hydrolysing enzymes (e.g. lactase, beta-glucosidase), as well as methods for their preparation.

A23C 21/026

{containing, or treated only with, lactic acid producing bacteria, bifidobacteria or propionic acid bacteria}

Definition statement

This place covers:

Whey and whey preparations containing or treated only with, respectively, lactic acid producing bacteria, bifidobacteria or propionic acid bacteria, as well as methods for their preparation.

A23C 21/04

containing non-milk components as source of fats or proteins

Definition statement

This place covers:

Whey and whey preparations containing non-milk components as source of fats or proteins, as well as methods for their preparation.

A23C 21/06

Mixtures of whey with milk products or milk components

Definition statement

This place covers:

Mixtures of whey with milk products or milk components, as well as methods for their preparation.

A23C 21/08

containing other organic additives, e.g. vegetable or animal products

Definition statement

This place covers:

Whey and whey preparations containing other organic additives, e.g. vegetable or animal products, as well as methods for their preparation.

A23C 21/10

containing inorganic additives

Definition statement

This place covers:

Whey and whey preparations containing inorganic additives, as well as methods for their preparation.

A23C 23/00

Other dairy products

Definition statement

This place covers:

Other dairy products (i.e. dairy products not covered by the preceding classes).