

SKIMMED MILK POWDER

PRODUCT DESCRIPTION

Skimmed milk powder is produced from cows' milk. After separation of milk into cream and skimmed milk, the skimmed milk is pasteurized, standardised, evaporated into a concentrate and then spray dried into powder form. The product complies with all valid EU legislation for food, especially regulation (EC) 852/2004 and regulation (EC) 853/2004 on the hygiene of foodstuffs.

STORAGE

Recommended to store in a cool and dry place < 25°C and protected from sunlight.

SHELF LIFE

Shelf life minimum 18 months after production date, printed on the bag.

CHEMICAL/PHYSICAL REQUIREMENTS

| Criteria | Target value | Tolerance value |
|----------------------------------|--------------|-----------------|
| Moisture | 3,7% | Max 4,0% |
| Fat content | < 1% | Max 1,25% |
| Titritable acidity (Adpi) | 0,15% | Max 1,15% |
| Ash | 8% | Max 8,5% |
| Protein (in fat free dry matter) | > 34% | Min 34% |
| Scorched particles | Disc A | Disc A/B |
| Solubility index | < 1ml | < 1ml |

MICROBIOLOGICAL REQUIREMENTS

| Criteria | Target value | Tolerance value |
|-------------------------|---------------|------------------|
| Total plate count | < 5.000 cfu/g | Max 10.000 cfu/g |
| Enterobacteriaceae | < 10 cfu/g | <10 cfu/g |
| E.Coli | Absent/1g | Absent/1g |
| Yeast and mould | < 10 cfu/g | Max 100 cfu/g |
| Salmonella | Absent/25g | Absent/25g |
| Listeria monocytogenes | Absent/25g | Absent/25g |
| Antibiotics / Delvotest | Negative | Negative |

SWEET WHEY POWDER

PRODUCT DESCRIPTION

Spray dried crystallised sweet whey powder is manufactured from sweet, fresh and clean whey released during cheese production. After separation of the cheese fines and butterfat, the whey powder is evaporated and spray dried. The final product is a creamy white, fine free-flowing non-hygroscopic powder, free from lumps (except those that break up readily under slight pressure) coloured particles and foreign matter.

CHEMICAL CHARACTERISTICS

| | |
|---------------------|------------|
| Milkfat | Max 1,5% |
| Moisture | Max 4,0% |
| Protein (N x 6,38) | Min 11% |
| Lactose | Min 68% |
| Minerals | Max 8,5% |
| Titrateable acidity | Max 0,15% |
| Solubility | Max 1,25ml |
| Scorched particles | Max Disc B |

MICROBIOLOGICAL CHARACTERISTICS

| | |
|--------------------|----------------|
| Bacterial estimate | Max 30.000/g |
| Coliforms | Absent in 0,1g |
| Germs and yeast | Max 100/g |
| Staphylococcus | Absent in 0,1g |
| Salmonella | Absent in 25g |
| Antibiotics | Negative |

PACKAGING

The standard pack is a multiwall paper bag which incorporates an inner polyethylene bag liner that is heat sealed or goose-necked. No metal fasteners are used.

| | |
|--------------|--------|
| Net weight | 25,0kg |
| Gross weight | 25,4kg |

WHOLE MILK POWDER

PRODUCT DESCRIPTION

Spray-dried whole milk powder.

WPNI* (mg/g) < 4

*Whey Protein Nitrogen Index – typical value

SENSORICAL DESCRIPTION

| | |
|-----------------|----------------|
| Colour | White to cream |
| Taste and odour | Milky |

COMPOSITION/100G PRODUCT

| | |
|------------------------|-----------|
| Moisture | Max 3,0% |
| Protein/NFDM* (Nx6.38) | Min 34,5% |
| Fat | Min 26,0% |
| Lactose** | Max 41,0% |
| Minerals | Max 6,5% |

* NFDM non fat dry matter

** by difference

APPLICATION

Whole milk powder recommended for a wide range of food applications : bakery, drinks, desserts, ice cream ...

CHEMICAL AND PHYSICAL CHARACTERISTICS

| | |
|--------------------------------|-----------|
| Nitrates | Max 50ppm |
| Titrateable Acidity | Max 0,15% |
| Scorched particles (ADPI /25g) | Disc A |
| pH | 6,6 ± 0,2 |
| Solubility | 99% |
| Bulk density (g/1) | 500-650 |
| Antibiotics | None |

MICROBIOLOGICAL CHARACTERISTICS

| | |
|-------------------|----------------|
| Total plate count | < 10.000 cfu/g |
| Yeasts and moulds | < 10 cfu/g |
| Coliforms | < 10 cfu/g |
| E Coli | Absent in 1g |
| Salmonella | Absent in 375g |

NUTRITIONAL VALUES (CALCULATED)

| | |
|----------------------------|------------------|
| Energy/100g | 2075kJ / 495Kcal |
| Sugar (Lactose)/100g | 41g |
| Saturated fatty acids/100g | 17g |
| Sodium/100g | 0,4g |

STORAGE AND SHELF LIFE

- 6 months in big bag
- 12 months in non-opened bag in a cool and dry place away from all sources of contaminating odours and tastes

STANDARD PACKAGING

- 25kg bags, multiwall kraft paper bag with inner polyethylene bag liner
- Big bag

SUGGESTED LABELLING

Whole milk powder.

ALLERGENS

The milk powder contains the following allergens: milk protein, lactose.

The milk powder contains no gluten.

GMO

The ingredients contain no genetically modified organisms and as such are not concerned by a labelling requirement (Regulation 1829/2003/EC and 1830/2003/EC and subsequent amendments).

WHOLE MILK POWDER CONTINUED

CONTAMINANTS

According to the monitoring plan, the milk powders meet the European standards or at least Codex recommendations, in terms of:

- heavy metals: lead (Pb), arsenic (As), cadmium (Cd), mercury (Hg)
- pesticides
- aflatoxins
- dioxins, furans, PCBs (polychlorinated biphenyls)
- melamine
- radioactivity

The powders do not contain antibiotics. They underwent neither irradiation nor ionization.

HEAT TREATMENT

According to regulation, the heat treatment of milk is at least 72°C/15 sec (or temperature / time equivalent).

PACKAGING COMPLIANCE

The materials used to package our milk powders comply with European regulation EC 1935/2004 (and subsequent amendments) for materials and articles intended to be in contact with foodstuffs.

MILK PROTEIN CONCENTRATE POWDER (MPC 85)

PRODUCT DESCRIPTION

Milk protein concentrate is powder of total milk protein processed by ultrafiltration and spray drying process. It is made from 100% EU milk and can be used as an ingredient in the manufacture of other foodstuffs.

SENSORICAL DESCRIPTION

| | |
|-----------------|---|
| Colour | White creamy |
| Consistency | Dry fine powder, allowed individual lumps, easily delaminating with mechanical impact |
| Taste and odour | Typical for milk protein concentrate powder, free of foreign taste or odour |

CHEMICAL AND PHYSICAL CHARACTERISTICS

| | |
|--|---|
| Moisture (not more than) | 6,0% |
| Fat (not more than) | 2,0% |
| Protein (Nx6,38) (not less than) | 80% |
| Protein in dry matter (not less than) | 84,2% |
| Lactose | 5,5% normally |
| Ash (not more than) | 8,5% |
| pH (10%/20°C) | 6,7 – 7,0 |
| Insolubility index (60°C) (not more than) | 1,0ml |
| Scorched particles, disc | A |
| Bulk density (625x) | 400–500 g/ml |
| Poured bulk density | 280–380 g/ml |
| Heat stability | Yes |
| Inhibitory substances | Not detected |
| Pharmacologically active substances | Not exceeding the limits set in regulation (EC) No 37/2010 |

| | |
|--|---|
| Combined total of residues of all substances | Not exceeding values fixed in regulations (EC) No 1881/2006, (EC) No 396/2005 |
| Physical hazard | Not foreign impurities that may cause health risk to the consumer |

MICROBIOLOGICAL CRITERIA

| | |
|-------------------------------------|----------------|
| Aerobic plate count | < 10.000 cfu/g |
| Coliforms | < 10 cfu/g |
| Yeast and mould | < 50 cfu/g |
| Enterobacteriaceae | < 10 cfu/g |
| E. Coli | < 10 cfu/g |
| Listeria monocytogenes | Absent/25g |
| Salmonella | Absent/25g |
| Coagulase-positive staphylococci | < 10 cfu/g |
| Bacillus cereus | < 10 cfu/g |

GMO STATUS

Product does not contain Genetically Modified Organisms (GMO), is not produced from GMO and does not contain any GMO ingredients.

ALLERGENS

Milk and products thereof (including lactose).

PACKING

Multiply paper bags with polyethylene liner
20kg net.

STORAGE AND SHELF LIFE

From the date of production at a humidity not up
75%, not longer than 18 months at a temperature
not up +25°C.

CREAM

PRODUCT DESCRIPTION

Cream is a non-homogenized pasteurized product derived from cow's milk by centrifugation with a characteristic light yellow colour and a smooth and homogenous structure.

The product does conform with the EU Regulation EC No.852/853 2004.

CHEMICAL, PHYSICAL, MICROBIOLOGICAL AND ORGANOLEPTIC CHARACTERISTICS

| Parameter | Target value | Rejection limit |
|--|--------------------------|-------------------------------------|
| Temperature at reception resp. at loading | $\leq 6^{\circ}\text{C}$ | $> 10^{\circ}\text{C}$ |
| Organoleptic and sensory characteristics, including foreign bodies | Regular ¹ | Irregular ² |
| Fat content | 39 – 42% | < 38 or $> 43\%$ |
| pH | 6,65 – 6,75 | $< 6,6$ or $> 6,8$ |
| Inhibitors / antibiotics | Absent | Present |
| Freezing point | $-0,515^{\circ}\text{C}$ | $-0,500$ – $-0,550^{\circ}\text{C}$ |
| Total Viable Count (TVC) | < 10.000 cfu/ml | > 50.000 cfu/ml |
| Enterobacteriaceae | ≤ 10 cfu/ml | > 100 cfu/ml |
| Phosphatase | Negative | Positive |
| Peroxidase | Negative | Positive |
| Coliforms | ≤ 10 cfu/ml | > 100 cfu/ml |
| Listeria monocytogenes | Absent | Present |
| Salmonella, cfu/25g | Absent | Present |

¹ Regular appearance is white to yellow colour. Regular taste and smell is fresh.

² Irregular taste and smell would be chemical, rancid, tallow, boiled/burned or any other off taste or smell. Irregular sensory would be crystallised, not homogenous, not pumpable.

SKIMMED MILK CONCENTRATE – LOW HEAT

PRODUCT DESCRIPTION

Skimmed Milk Concentrate is produced from fresh pasteurized skimmed cow's milk by concentration up to 35% dry matter.

PARAMETERS BY DELIVERY

| Parameters by delivery* | Typical value | Specification |
|-------------------------------------|--|-----------------------------|
| Dry matter | 35,0% | 34,0% min |
| pH | 6,5 | 6,2 – 6,9 |
| Titrateable acidity (% lactic acid) | 0,15% | 0,17% max |
| Colour | White, pale yellow homogeneous liquid | |
| Taste and odour | Clean and milky taste and smell | |
| Temperature | 4°C | 6°C max at point of loading |
| Antibiotics | Absent | Absent |

PARAMETERS BY MONITORING

| Parameters by monitoring** | Typical value | Specification |
|--|----------------|----------------|
| Protein in non fat dry matter (N x 6.38) | 36,0% | 34,0% min |
| Whey Protein Nitrogen (WPN index) | ≥ 6,0mg/g | ≥ 6,0mg/g |
| Fat | 0,5% | 1,0% max |
| Standard plate count | < 10.000cfu/g | 30.000/g max |
| Yeast and moulds | < 1cfu/g | 10cfu/g max |
| Salmonella | negative / 25g | negative / 25g |

STORAGE AND SHELF LIFE

Four days after dispatch, if transported and stored at less than 6°C.

PACKAGING

Bulk.

QUALITY AND ASSURANCE

The product is manufactured in accordance with international standards and guidelines. Each package is marked to enable trace back.

* Parameters to be analyzed by producer and to be reported at delivery of the goods.

** Monitoring frequency on a monthly basis.

LACTIC BUTTER

PRODUCT DESCRIPTION

Mild lactic butter is produced from pasteurized cream with the addition of lactic acid and acidifying microbial cultures according to the NIZO procedure. The product is conform with the EU-Regulations (EC) 852/2004 and (EC) 853/2004.

SENSORY DESCRIPTION

| | |
|-------------|----------------------|
| Appearance | Creamy, light yellow |
| Texture | Smooth |
| Taste/Odour | Typical sourish |

NUTRITIONAL VALUE/100G

| | |
|-----------------------|---------------|
| Energy value | 3.056/743kcal |
| Protein | 0,7g |
| Carbohydrates | 0,6g |
| Sugar | 0,6g |
| Fat | 82g |
| Saturated fatty acids | 49,6g |
| Sodium | 0,01g |

CHEMICAL/ PHYSICAL REQUIREMENTS

| Criteria | Values min/max | Unit |
|-------------|----------------|------|
| Fat content | Min 82 | % |
| Moisture | Max 16 | % |
| pH | Max 5,3 | |

MICROBIOLOGICAL REQUIREMENTS

| Criteria | Max | Unit |
|------------------------|------|---------|
| Enterobacteriaceae | < 10 | cfu/g |
| Coliform germs | < 10 | cfu/g |
| Listeria monocytogenes | 0 | cfu/g |
| Salmonella | 0 | cfu/25g |
| Staph aureus | < 10 | cfu/g |
| Bacillus cerus | < 10 | cfu/g |

ALLERGENS AND GMO

The product contains lactose and milk protein.

The butter is not produced by genetic engineering and does not contain genetically modified microorganisms. The product is conform with the legal requirements on labeling and traceability of GMO foods as set by EU regulation (EC) No. 1829/2003 and (EC) No. 1830/2003.

PACKAGING, BEST BEFORE DATE AND STORAGE CONDITIONS

25kg cartons with PE-inner liner packed on pallets.

If the product is frozen and will be stored at -18°C, we will provide a shelf life of 12 month after production date. In case goods are delivered fresh or defrosted, we provide a shelf life of 32 days after delivery (storage conditions < 6°C).

SWEET CREAM BUTTER

PRODUCT DESCRIPTION

Pasteurized sweet cream.

CHEMICAL REQUIREMENTS

| | |
|------------------|-----------|
| Moisture | Max 16% |
| Fat | Min 82% |
| Pasteurization | Positive |
| pH | 6,5 – 6,8 |
| Free fatty acids | < 0,35% |

MICROBIOLOGICAL REQUIREMENTS

| | |
|-----------------------------|-------------|
| Total plate count/1g | < 1.000 cfu |
| Coliforms/1g | Negative |
| Yeast and moulds/1g | < 50 cfu |
| Staphylococcus aureus/0,1g | Negative |
| Enterobacteriaceae/1g | Negative |
| Listeria monocytogenes /25g | Negative |

PACKAGING

25kg block in plastic film and carton.

SHELF LIFE/STORAGE

| Shelf Life | Storage Temperature |
|------------------------------|---------------------|
| 50 days since manufactured | 0°C/+10°C |
| 2 months since manufactured | -10°C |
| 12 months since manufactured | -18°C |

GOUDA CHEESE 48%

PRODUCT DESCRIPTION

Gouda 48% fat in dry matter, matured in foil, 15kg Euroblock, semi-hard cheese, matured at least three weeks – max 6 weeks old, suitable for slicing, at loading max 4 days palletised 100x120cm.

INGREDIENTS

Pasteurised cow's milk, salt, cheese-making cultures, calcium chloride*, microbial rennet.

*no declaration obligation.

SENSORICAL CHARACTERISTICS

| | |
|------------------|---|
| Outer appearance | Rindless, smooth surface |
| Inner appearance | Ivory-coloured to yellow, occasional round and oval holes of pea-size |
| Texture | Smooth dough, semi-hard to firm |
| Taste | Mild and pure, not sour |

CHEMICAL AND PHYSICAL CHARACTERISTICS

| Parameter | Min | Target | Max |
|--------------------------------|-------|--------|-------|
| Fat | 27,5% | 29,0% | 30,5% |
| Dry matter | 57,0% | 58,0% | 59,0% |
| Fat in dry matter | 48,0% | – | – |
| Water content in nonfat cheese | 54,0% | – | 63,0% |
| Salt | 1,5% | 1,7% | 2,1% |
| pH | 5,2 | 5,35 | 5,5 |

MICROBIOLOGICAL CHARACTERISTICS

| Parameter | Max | Method |
|------------------------------|---------------|--|
| Enterobacteriaceae | 100 cfu/g | VDLUFA M7.4.2 |
| E. Coli | 10 cfu/g | Direct Plating Method by Anderson & Baird-Parker |
| Yeast and mould | 500/100 cfu/g | VDLUFA M7.7.2 |
| Salmonella | Neg/25g | ISO 6579 |
| Listeria monocytogenes | Neg/25g | DIN EN ISO 11290-1 |
| Coagulase-pos. staphylococci | 10 cfu/g | ISO 6888-1 |
| Clostridia | 300 cfu/g | VDLUFA M 7.18.2.1 |
| Sulfit-reducing clostridia | 100 cfu/g | VDLUFA M 7.18.4 |

NUTRITIONAL VALUE/100G PRODUCT

| | |
|--------------------|----------------|
| Energy | 1502kJ/362kcal |
| Fat | 29,0g |
| of which saturates | 19,4g |
| Carbohydrates | < 0,1g |
| of which sugars | < 0,1g |
| Fibres | 0g |
| Protein | 24,0g |
| Salt | 1,7g |

Gluten free and lactose free
(lactose content < 0,1g/100g)

GOUDA CHEESE 48%

CONTINUED

ALLERGENS

Milk and products thereof (including lactose).

STORAGE AND SHELF LIFE

- Storage conditions: +4°C to +8°C
- Expiry from date of production: 12 months

STANDARD PACKAGING

| Standard Packaging | Block | Pallet |
|---------------------------|-----------------------|---------------------------|
| Length x breadth x height | 500mm x 300mm x 100mm | 1.200mm x 1.000mm x 700mm |
| Height incl pallet | – | 860mm |
| Weight | 15kg | 840kg |

Packing material: maturing foil made of PE/PA/PE.

FOOD LEGISLATION

This product, including its packaging and labelling, complies with the applicable German and EU legislations and has been produced or treated under satisfactory conditions, with the appropriate care and using the appropriate hygiene and quality controls.

GMO

The product is not produced by genetic engineering and does not contain genetically modified microorganisms, and as such is not subject to declaration of ingredients in accordance with directives 1829/2003 and 1830/2003.

CONTAMINANTS

Heavy metals, pesticides, PCBs, mycotoxines, dioxines, inhibitors.

Conforms to EU regulations.

SKIMMED MILK POWDER

ANIMAL NUTRITION – VGM

COMPLIANCE

Skimmed milk powder must comply with the European / Dutch law and is of merchantable quality. All feed products must be GMP+ and all suppliers must be GMP+ certified. In addition the skimmed milk powder animal nutrition needs to meet the following specifications.

CHEMICAL / PHYSICAL PROPERTIES

| | |
|-------------------------------------|----------------------------|
| Moisture | 4,5% max |
| Fat | 1,5% max |
| Ash | 9,0% max |
| Phosphates | Negative |
| Protein (N x 6.38) | 35,0% min in the product |
| Whey content | 0,7% max by RP-HPLC method |
| Whey content | 1,6% max by GP-HPLC method |
| pH (10%) | 6,45 – 6,65 min |
| Solubility | 98,0% min |
| Purity | Dics B (ADPI) max |
| Appearance, colour, taste and smell | Not abnormal |

MICROBIOLOGICAL / BACTERIOLOGICAL

| | |
|-------------|-----------------------|
| Plate count | 100.000/g |
| Salmonella | Negative/25g/n=5, c=0 |
| Coliforms | < 5/g |

RESIDUES

| | |
|-----------------|-------------------------------|
| Antibiotics | Negative according Delvo-test |
| Chloramphenicol | Max 0,3ppb |
| Nitrite | Max 10ppm |

Examining the quality and / or composition takes place according to the COKZ at the time of research methods prescribed if no other methods have been agreed.

SWEET WHEY POWDER

ANIMAL NUTRITION – VGM

COMPLIANCE

Sweet whey powder must comply with the European / Dutch law and is of merchantable quality. All feed products must be GMP+ and all suppliers must be GMP+ certified. In addition the sweet whey powder animal nutrition needs to meet the following specifications.

CHEMICAL/PHYSICAL

| | |
|-------------------------------------|----------------------|
| Moisture | 4,5% max |
| Fat | 1,5% max |
| Ash | 9,0% max |
| Phosphates | Negative |
| Protein (N x 6.38) | 11,0% min in product |
| Lactose | 67,0% min |
| Lactic acid | 2,5% max |
| pH (10%) | 6 min |
| Solubility | 98,0% min |
| Purity | Dics B (ADPI) max |
| Appearance, colour, taste and smell | Not abnormal |

MICROBIOLOGICAL/BACTERIOLOGICAL

| | |
|-------------|-----------------------|
| Plate count | 100.000/g |
| Salmonella | Negative/25g/n=5, c=0 |
| Coliforms | < 5/g |

RESIDUES

| | |
|-----------------|-------------------------------|
| Antibiotics | Negative according Delvo-test |
| Chloramphenicol | Max 0,3ppb |
| Nitrite | Max 10ppm |

Examining the quality and / or composition takes place according to the COKZ at the time of research methods prescribed if no other methods have been agreed.