

Product Specification

Skimmed Milk

LEGAL COMPLIANCE AND FOOD SAFETY CONTROL

Full Ingredient Listing:

| Ingredient (State E number and full description where applicable) | % Breakdown By Weight (inc mg / kg for all additives) | Named Approved Suppliers by ingredient | Country Of Origin |
|---|--|--|-------------------|
| Skimmed milk | N/A | Contracted UK farms | UK |

NUTRITIONAL INFORMATION

| | Typical Values per 100ml | Source of Information (e.g. analytical, calculation, nutritional tables etc) |
|-------------------------------------|--------------------------|---|
| Energy | 149kJ/35kcal | Nutritional Analysis |
| Fat of which are saturates | 0.1g 0.03g | |
| Carbohydrate of which are sugars | 5.1g 5.1g | |
| Protein | 3.4g | |
| Salt | 0.1g | |

MICROBIOLOGICAL STANDARDS

| Microbiological Specification | Max Values at Start of Shelf-Life (C.F.U. per gram unless stated) | End of Shelf Life | Testing Method |
|-------------------------------|--|-------------------|----------------|
| Enterobacteriaceae | <1cfu per ml | <1cfu per ml | Petri Film |
| TVC | <10,000 cfu per ml | 1,000,000cfu/ml | Petri Film |
| Salmonella spp | Not Detected/25g | Not Detected/25g | See below. |
| Listeria spp | Not Detected/25g | Not Detected/25g | |
| Bacillus cereus | <20 cfu/g | <20 cfu/g | |
| Staphylococcus aureus | <20 cfu/g | <20 cfu/g | |
| E.Coli | <10 cfu/g | <10 cfu/g | |
| Pseudomonas species | <10 cfu/g | <10 cfu/g | |
| Clostridium Perfringens | <10 cfu/g | <10 cfu/g | |
| Yeasts and Moulds | <100 cfu/g | <100 cfu/g | |

TVC and Enterobacteriaceae testing is carried out on each batch of product packed.

Pathogen testing is carried out on products monthly following a schedule. These tests are completed externally by a UKAS accredited Laboratory.

Enterobacteriaceae and TVC testing is tested in a internal laboratory which is not UKAS accredited. The accuracy of these results is monitored by a proficiency testing scheme ran by LGC standards. The results of these are available upon request.

ANALYTICAL LIMITS

| Type Of Analysis | Frequency | Limits |
|------------------|--------------------|--------------|
| Butterfat | Each batch | <0.3% |
| Protein | Each batch | >3% |
| FPD | Each batch | >509m°C |
| pH | Each batch | >6.5 |
| Acidity | One batch per week | <0.18% |
| Phosphatase | Each batch | <350mU/l |
| Aflatoxins | Annually | <0.01µg/l |
| Antibiotics | Each batch | Not detected |

ALLERGENS

| Allergen | 1. Within Product (Yes/No) | 2. Used On Processing Site (Yes/ No) | 3. If 'yes' to question 2 what is the risk of contamination |
|--|----------------------------|--------------------------------------|---|
| Celery | No | No | |
| Egg | No | No | |
| Fish | No | No | |
| Gluten | No | No | |
| Milk | Yes | Yes | Present in product |
| Molluscs | No | No | |
| Mustard | No | No | |
| Nuts | No | No | |
| Peanuts | No | No | |
| Sesame Seed | No | No | |
| Shellfish | No | No | |
| Soya | No | No | |
| Sulphite > 10ppm | No | No | |
| Lupin | No | No | |
| Are any hidden allergens present in any component of any ingredient within the product? No | | | |
| Has this been confirmed in writing by your own suppliers? Natural product | | | |
| Comments: | | | |

| IS THE PRODUCT FREE FROM | YES / NO | INGREDIENT PRESENT WITHIN |
|--------------------------------------|----------|---------------------------|
| Maize and maize derivatives | Yes | |
| Fruit and fruit derivatives | Yes | |
| Yeast and yeast derivatives | Yes | |
| Vegetables and vegetable derivatives | Yes | |
| Garlic | Yes | |
| Coconut and coconut derivatives | Yes | |
| TVP / HVP | Yes | |
| GM materials / ingredients | Yes | |
| Monosodium Glutamate | Yes | |
| BHA / BHT | Yes | |
| Aspartame | Yes | |
| Beef and derivatives | Yes | |
| Pork and derivatives | Yes | |
| Lamb/Mutton and derivatives | Yes | |
| MRM / MSM | Yes | |
| Free from Hydrogenated Fats | Yes | |
| Omega 3 | Yes | |
| Additives | Yes | |
| Preservatives | Yes | |
| Azo Colours and Coal Tar Dyes | Yes | |
| Glutamates | Yes | |
| Benzoates | Yes | |
| Antioxidants | Yes | |
| Colour | Yes | |
| Artificial Colour | Yes | |
| Flavouring | Yes | |
| Artificial Flavouring | Yes | |

| | | |
|------------------------------------|-----|---------------------------------|
| Suitable for Ovo-lacto vegetarians | Yes | |
| Suitable for Vegans | No | Derived from animals |
| Suitable for Kosher Diets | No | |
| Suitable for Halal Diets | Yes | Not certified |
| Suitable for Organic Sale | No | Do not produce organic products |

CCP SUMMARY

| Process Point | Hazard | Critical Limit | Monitored by | Corrective Actions | Validation of CCP's |
|------------------|---------------------------|--|--|--|--|
| Raw milk at farm | Antibiotics in milk | Not detected | Laboratory, all raw milk deliveries | Reject out of specification milk and inform farm | Idexx antibiotic Snap test Calibrated daily |
| Milk processing | Inadequate pasteurisation | Temp: min 72.5°C Time: min 25 secs Divert: 73.5°C <u>Phos (mU/l)</u> Target: <100 Legal: <350 | Temp recorded on thermograph. Yearly holding time test. Phosphatase test | Automatic divert on plant. Divert checks carried out by processor. | Phosphatase test |
| Cream processing | Inadequate pasteurisation | Temp: min 74.5°C Time: min 15 Secs Divert: 75.5°C <u>Phos(mU/L)</u> Target: <100 Legal: <350 | Temp recorded on thermograph. Yearly holding time test. Phosphatase test | Automatic divert on plant. Divert checks carried out by processor. | Phosphatase test |

Outer Cases are to be labelled with: None

| Key Process Controls: | |
|---|---|
| Stage | Key Limit |
| Animal Welfare Controls at Milking | Farm assurance required |
| Antibiotic Controls | Not detected |
| Raw Milk Quality Checks | Butterfat = >3.50% FPD = >509m°C Resazurin = reading of 6 after 10 mins TVC = <100.000 cfu/ml Acidity = 0.14 - 0.18 |
| Heat treatment stages and controls | Pasteurisation Divert checks Phosphatase testing |
| Briefly describe the milk production process: | |
| Milk is collected from the farm by tanker. Once back at the dairy it is tested in the laboratory before it is released into the silo. From the silo it is processed. The processing involves the milk being separated, re-blended depending on product being produced, pasteurised and then cooled to <3°C, homogenised and stored in finished milk tanks. After separation cream is stored in raw cream tanks and pasteurised through cream pasteuriser. Products are cooled to the following temperatures, double 12°C +/- 1, single 10°C +/- 1 and whipping 8°C +/- 1. Cream is sent to finished cream tanks and held for 2 hours for latent heat to disperse and product to thicken. From the finished milk/ cream tanks it is sent to the fillers for packing. The packing operation is fully enclosed. Once packed it is transferred to the cold store ready for picking. It is then despatched using chilled vehicles. After packing cream is transferred to the cold store and chilled to < 5°C within 2 hours before dispatch. | |

Appearance: Fresh milk

Flavour: Fresh skimmed milk

Texture:
Smooth slightly creamy liquid. Viscosity similar to water

Special Manufacturing Processes: None

Pack Sizes:
500lts and 1000lts

Product Specific Gravity: 1.032

Weights:
500lts 516kg Total Product Nominal Weight
1000lts 1032kg Total Product Nominal Weight

Type of packaging used:
Foldable galvanised mild steel outer container. 3 ply blue plastic liner.
500lt steel outer weight: 140kg
1000lt steel outer weight: 180kg

Shelf Life Information (in days):
Process Date to Delivery: Max 3 days
Process Date to Use By: 12 days
Use by printed on pack in format below:
05 Feb A
(A = day of week, A – Mon, B – Tue etc.)
Shelf Life Once Opened: 3 days
Recommended storage temperature before and after opening: >1°C and <5°C.

Delivery Information:
Distribution temperature: >1°C and <6°C
Minimum Shelf Life on Delivery: 8 days
Temperature upon Delivery: <6°C
Products delivered in clean refrigerated vehicle.

QUALITY ATTRIBUTES

| Attribute | Size | Acceptable Standard | Unacceptable Standard |
|-------------------------|--------|--|--------------------------------------|
| Temperature | All | <5°C but >1°C | >5°C |
| Temperature on delivery | All | <5°C | >5°C |
| Flavour/Odour | All | Fresh milk, free from off odours or flavours | Any off flavours or odours |
| Appearance | All | White, free flowing liquid. | Any lumps or off colours |
| Colour | All | Milk white | Other than that of fresh milk |
| Extraneous matter | All | None | Containing extraneous matter |
| Labelling | All | Meets trading standards regulations | Failure to meet required regulations |
| Packing format | 500lt | 500lt bag in box | Any other format |
| | 1000lt | 1000lt bag in box | |
| Pack integrity | All | Secure lid and intact bag | Unsecured lid and/or leaking bag |
| Seal integrity | All | Secure lid and intact bag | Unsecured lid and/or leaking bag |
| Palletisation | N/A | N/A | N/A |
| Pallet condition | N/A | N/A | N/A |

FOOD CONTACT PACKAGING REQUIREMENTS

| Packaging (essential requirements) | |
|--|---|
| Is the primary/ transit packaging volume and weight limited to maintain the necessary level of safety, hygiene and acceptance for the pack product and for the consumer? Yes Comment: | Can any material/component be reused? No Comment: |
| | Are all materials/components recoverable by material recycling, energy recovery, composting or biodegradation? No Comment: |
| Is the presence of noxious/ hazardous constituent substances/ materials minimised with regard to presence in emissions, ash or leachate when materials/ components are incinerated or landfilled? Not known Comments: Assurances obtained from suppliers ensuring that packaging supplied to Tenacity Business Solutions Processing Ltd meets all relevant legislation. | Do all materials/ components comply with the limit of sum of lead, cadmium, mercury and hexavalent chromium concentration levels set at 100ppm? Comment: Assurances obtained from suppliers ensuring that packaging supplied to Tenacity Business Solutions meets all relevant legislation. |
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