

## 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	0.1g	
of which are saturates	0.03g	
Carbohydrate	5.1g	
of which are sugars	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
<p>Briefly describe the milk production process:</p> <p>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 &lt;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 &lt; 5°C within 2 hours before dispatch.</p>	

**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)

<p>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</p> <p>Comment:</p>	<p>Can any material/component be reused?</p> <p>No</p> <p>Comment:</p>
	<p>Are all materials/components recoverable by material recycling, energy recovery, composting or biodegradation?</p> <p>No</p> <p>Comment:</p>
<p>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?</p> <p>Not known</p> <p>Comments:</p> <p>Assurances obtained from suppliers ensuring that packaging supplied to Tenacity Business Solutions Processing Ltd meets all relevant legislation.</p>	<p>Do all materials/ components comply with the limit of sum of lead, cadmium, mercury and hexavalent chromium concentration levels set at 100ppm?</p> <p>Comment:</p> <p>Assurances obtained from suppliers ensuring that packaging supplied to <a href="#">Tenacity Business Solutions</a> meets all relevant legislation.</p>