Arla® Skimmed Milk Powder

Description

Arla Skimmed Milk Powder is a spray-dried powder with approx. 1 % milk fat. It is based on fresh cow's milk, which has undergone legal pasteurisation, as well as further heat treatment and evaporation, prior to spray drying.

Properties

Arla Skimmed Milk Powder is a free-flowing powder, free of lumps, with a milky smell. WPNI: >1.5 <6.0 mg/g = medium heat (MH).

Application

1. Recombining
2. Industrial production

Dosage depends on application. For recombining we recommend 100 g powder for 900 ml water giving approx. 1 litre 'skimmed milk'.

If for drinking purpose previously boiled lukewarm water must be used. Skimmed milk powder is not adapted to be used as infant feeding.

Composition

Skimmed milk.

Chemical Specifications - levels

Protein (Nx6.38) as is		32-33 %
Protein (Nx6.38) f.f.d.m.*		34 %
Lactose	By difference/calculated	54 %
Fat		1.25 %
Ash		8 %
Moisture		4 %
Titratable acidity as lactic acid**		max 0.15 %

*f.f.d.m: fat free dry matter
**0.15%=17°T= 18 ml 0.1N NaOH

Physical specifications

Form		Powder
pH (10% solution)		6.5-6.8
Scorched particles		Disc A+B
Bulk density	(x 625)	0.61-0.85 g/cm^3
Bulk Volume	(x 625)	118-165 cm^3/100g
(In) Solubility index		0.5 ml
Colour		slightly yellow
Flavour/odour		milky

Microbiological specifications

Total plate count	CFU/g	max 10000
Bacillus cereus	CFU/g	max 100
Sulphite red. Clostr. spores*	CFU/g	max 50
Enterobacteriaceae	CFU/g	<10
Coag. Pos. Staphylococci (S. aureus)	CFU/g	<10
Yeast/Mould	CFU/g	max 100
Salmonella	125 g	Absent
Listeria **	25 g	Absent

Coliforms, E. coli and Cronobacter spp. are controlled via Enterobacteriaceae – listed above.

*Anaerobic sulphite-reducing Bacteria (spores)
** Absent stated due to: Listeria cannot survive the process and has no possibility for growth in powder. Listeria is controlled by monitoring.

Certificate of Analysis (CoA) and Release Procedure

Certificate of Analysis (CoA) with selected parameters from above 'Chemical, Physical and Microbiological Specifications' are available after 'positive release' at packed batch level.

Methods in use are with reference to international recognised standards (e.g. ISO, IDF) if applicable. Testing is mainly performed at own lab, which participates in relevant proficiency schemes. Pathogen testing is performed by accredited labs/methods.

Representative samples are collected from each production batch.

Testing is performed on selected parameters as a combination of individual final batch testing and monitoring of the whole production process.

Retain samples representing all delivered batches are kept during prescribed shelf life.

Origin, Health Mark/Identification Mark (Id. mrk)

This product can be produced of milk from the EU at:

Westbury Dairies Ltd. Id mrk: UK-WQ108 -EC

The production country and site is identified on the packaging through the identification marks listed.

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Packaging
Multi-layer paper bag with a PE inner liner; 25 kg net or big bags, 1000 kg net (standard).

On new wooden heat treated pallets with cover - full wrapped or with a plastic hood.

Bags can be loaded loose in container (per customer agreement).

Storage
Products are to be stored in closed bags away from strong odours under cool, dry conditions to prevent deterioration due to humidity and high temperatures.

Shelf Life
18 months minimum if kept under the prescribed storage conditions.

Preservation
Arla Skimmed Milk Powder has not been irradiated.
Preservatives e.g. benzoate, sorbate have not been added.

Remarks
For products with Kosher and/or Halal certificate please request for availability.

For product packed under protective atmosphere please ask for availability.

REACH/CLP/MSDS
Registration, Evaluation, Authorisation of Chemicals (REACH) Regulation (EC) No. 1907/2006: As food/feed as well as for other purposes milk powders are exempted from REACH (ref. to art. 2(3) and Annex V (8)). Classification, labelling and packaging (CLP) Regulation (EC) No. 1272/2008: Milk powders are not hazardous substances/ mixtures and not classified as dangerous (Dir. 67/548/EEC) – no need for labelling in this respect.

Safety Data Sheet (MSDS) available upon request.

Various Contaminants - Monitoring
Antibiotic - below legal maximum residue levels (MRL) – tested on raw milk at silo tank level prior to release for production, by use of quick test (Beta Star).

Aflatoxin M1 – verified through random testing of raw milk samples - results well below 0.05 mcg/l milk.

Pesticides - yearly monitoring through representative samples of raw milk. No detection at 0.01 mg/kg (LOD) or below as applicable, i.e. well below legal maximum residue levels (MRL).

Through monitoring of milk and/or products the below can be confirmed to be in control for the powder:

Dioxins: max 2.5 pg WHO-PCDD/F-TEQ/g milk fat
Dioxins+DL-PCBs: max 5.5 pg WHO-PCDD/F-PCB-TEQ/g milk fat
NDL-PCBs: max 40 ng/g milk fat

Lead (Pb) mg/kg	<0.005
Arsenic (As) mg/kg	< 0.1
Mercury (Hg) mg/kg	< 0.005
Cadmium (Cd) mg/kg	< 0.001
Tin (Sn) mg/kg	< 0.06
Nitrate (NO3) mg/kg	max 50
Nitrite (NO2) mg/kg	max 5

Melamine due to adulteration is absent – verified through monitoring of products to be well below 0.5 mg/kg.
The authorities are over viewing radioactive out-falls and monitor the residue level in food, water and environment. For milk the level of Cs134+Cs 137 are tested to be well below 10 Bq/kg

Nutritional data (avg. values for nutrition labelling per 100g based on best available data including data from literature)

Energy (calculated)	1500 kJ/355kcal
Fat	1 g
of which saturated fatty acid	0.8 g
Trans fatty acid	0.04 g
Carbohydrate	54 g
of which sugars (lactose)	54 g
Protein (Nx6.38)	32 g
Dietary Fibre	0 g
Salt (NaCl)	1.0 g

Selected elements

Vitamin B_2	1.4 mg
Calcium	1100 mg
Potassium	1500 mg
Phosphate	900 mg

Legal references
Arla Skimmed Milk Powder is in legal terms a food ingredient fit for human consumption or for production of food for human consumption meeting standards laid down by the EU and/or FAO/WHO Codex Alimentarius, as applicable. It is labelled according to relevant EU legislation.
National legislation should always be consulted for application and labelling.
The product is produced at factory units authorized by and under supervision of national authorities for production of food of animal origin (milk based). Assigned authorization number is printed on the packaging.
The factory units have established HACCP plans for the production based on FSSC 22000, IFS or BRC requirements.

The product is produced from pasteurized milk/milk constituents from healthy cows. Monitoring programs for undesirable matters are established for the milk and/or the product according to legislation and HACCP based risk assessment.
Products produced at facilities within the EU are based on milk/milk constituents fulfilling EU standards, demands and legislation.

Packaging materials comply with demands laid down for materials and articles intended to come into contact with food (in dry powder form).

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GMO policy

Arla Skimmed Milk Powder is considered as a non-GMO product according to the definition for GMO stated in EU Directive No 2001/18, art. 2 and thus requires no GMO-labelling, in accordance with EU Regulation (EC) No 1829/2003 and EU Regulation (EC) No 1830/2003.

Our objective is to avoid genetically modified ingredients in our products.

No GM-techniques are used for the production.

When purchasing raw materials we look for non-GMO raw materials subject to the EU definition above, based on the GMO information we receive from our suppliers.

Allergens

The table below indicates the presence (as added component) of the following allergens and products thereof – based on Annex II in Regulation 1169/2011 as amended.

YES	NO	ALLERGENS	DESCRIPTION OF COMPONENTS
	●	Cereals containing gluten and products thereof	
	●	Crustaceans and products thereof	
	●	Eggs and products thereof	
	●	Fish and products thereof	
	●	Peanuts and products thereof	
	●	Soya beans products thereof	
●		Milk and products thereof (including lactose	Bovine milk
	●	Nuts	
	●	(Tree) Nuts and products thereof	
	●	Celery and products thereof	
	●	Mustard and products thereof	
	●	Sesame seeds and products thereof	
	●	Sulphur dioxide and sulphites (>10 mg/kg)	
	●	Lupin and products thereof	
	●	Molluscs and products thereof	

Analytical Methods, Chemical and Physical

Methods in use in our laboratories are with reference to the below listed standards methods, as applicable.

Protein (Nx6.38)	ISO 8968-3: 2004 IDF 20-3: 2004
Fat	ISO 1736 IDF 9:2008
Moisture	NMKL 110 2. Ed.: 2005
Minerals (Ash)	NMKL 173: 2005
Titratable acidity	ADPI 916:1990 ISO 6091:1980
pH (10 % solution)	Potentiometric method
Bulk density/Bulk Volume	IFS 134:2005 ISO 8967:2005
Scorched particles	ADPI 916:2002
(In) Solubility Index	IDF 129:2005 ISO 8156:2005

Analytical Methods, Microbiological

Methods in use in our laboratories are with reference to the below listed standards methods, as applicable.

Total Plate Count	ISO 4833:2003
Bacillus Cereus	ISO 7932:2004
Anaerobic sulphite-reducing Bacteria spores (clostridia)	ISO 15213: 2003
Enterobacteriaceae	ISO 21528-2:2004
Coagulase-positive Staphylococci (aureus)	ISO 6888-1:1999
Yeast and Mould	ISO 6611:2004 IDF 94:2004
Salmonella	BAX® System Q7 * ISO 6579:2002

*BAX® System Q7 approved for salmonella testing by AOACRI, AFNOR, Nordval, USDA Food Safety Inspection Service and validated by Danish authorities against ISO 6579:2002

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