

# Milii Whole Milk Powder

## **Description**

Milli Whole Milk Powder 26% is a spray-dried powder with approx. 26 % milk fat. It is based on fresh cow's milk, which has undergone legal pasteurization, as well as further heat treatment and evaporation, prior to spray drying.

## **Properties**

Milli Whole Milk Powder 26% is a free-flowing powder, free of lumps, with a milky smell. WPNI: >1.5 <6.0 mg/g = medium heat (MH).

## **Application**

- 1. Industrial production
- 2. Bakery
- 3. Biscuits
- 4. Sweets

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

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

# Composition

Whole milk.

Chemical Specifications - levels

Protein (Nx6.38) d.m.		34 %
Lactose	By difference/calculated	41 %
Fat		26 %
Ash		6 %
Moisture		3.2 %
Titratable acidity as lactic acid*		max 0.15 %

# **Physical specifications**

Form		powder
pH (10% solution)		6.5-6.8
Scorched particles		Disc A
Bulk density	(x 625)	0.54-0.75 g/cm <sup>3</sup>
Bulk Volume	(x 625)	135-185 cm <sup>3</sup> /100g
(In) Solubility index		0.5 ml
Colour		slightly yellow
Flavour/odour		distinctively creamy

#### Microbiological specifications

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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.

## 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 recognized 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.

#### **Packaging**

Multi-layer paper bag with a PE inner liner; 25 kg net or big bags,  $1000 \, \text{kg}$  net (standard).

Melamine due to adulteration is absent - verified through monitoring of products to be well below 0.5 mg/kg.

Our authorities are overviewing 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.



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**

24 months minimum if kept under the prescribed storage conditions.

#### Preservation

Milii Whole Milk Powder 26% has not been irradiated. Preservatives e.g. benzoate, sorbate have not been added.

# **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

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

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Energy (calculated)	2070 kJ/495kcal
Fat	26 g
of which saturated fatty acid	17 g
Trans fatty acid	0.9 g
Carbohydrate	41 g
of which sugars (lactose)	41 g
Protein (Nx6.38)	24 g
Dietary Fibre	0 g
Salt (NaCl)	0.75 g

#### **Selected Elements**

Vitamin A	780IU/234 RE
Vitamin B2	1.1 mg
Calcium	880 mg
Potassium	1200 mg
Phosphate	710 mg