

# Excellion™ EM 7

## Product information

### Description

Excellion™ EM 7 is a very pure roller dried milk protein, type fresh curd sodium caseinate, prepared from fresh skimmed milk.

### Ingredients

Milk protein.

### Additional label information

Excellion™ EM 7 conforms with EU requirements for non-GMO labelling. The product is kosher and halal certified.

### Applications

Excellion™ EM 7 is a versatile product. It is used as a protein enricher and stabiliser in various dairy products like yoghurt, drinking milk, ice cream and desserts. Excellion™ EM 7 also acts as emulsifier/stabiliser in processed cheese, low fat spreads, coffee whiteners, topping bases, liquid dietetic formulas and a range of processed meat products. Excellion™ EM 7 has unique emulsifying and stabilising properties. It shows as all caseinates a very good essential amino acid profile. The product is also characterised by a very neutral flavour.

### Range of products

Within the EM range DMV supplies a range of functional roller dried milk proteins for the food industry. Next to that DMV supplies a full range of spray dried milk proteins. A selection of milk proteins is available in instantised or agglomerated versions.

### Packaging

Multi layer paper bag with a polythene inner bag; content is 25kg. Palletised/wrapped to units of 1,000kg. Alternatively Excellion™ EM 7 can be supplied in big bags.

### Shelf life and storage conditions

In the original sealed multi layer paper bag under normal, odour free conditions of 5–25°C and max. 70% R.H. the product can be kept for 2 years.

### Typical analysis

#### Chemical

Protein (Nx6.38)	
As is	90.0%
On dry basis	>93.0%
Moisture	5.0%
Ash (825 °C)	4.0%
Fat	0.8%
Lactose	0.2%
pH (10% sol. 20°C)	6.8
Scorched particles (ADPI)	Disc A

#### Physical/Organoleptic

Colour	White/Cream
Taste/Odour	Neutral
Bulk density (tapped)	500g/L
Particle size (<800µm)	100%
Solubility in water	>99%
Viscosity (15% sol. 20°C)	3 Pa.s

#### Microbiological

Standard plate count	<50/g
Aerobic spore count	10/g
Anaerobic spore count	<10/g
Sulphite reducing Clostridia	<10/g
Yeasts and moulds	<10/g
CP staphylococci	Neg. in 1g
Enterobacteriaceae	<1g
Salmonella	Neg. in 750g

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## Typical analysis



### Nutritional

Energy value	1,550kJ/100g
Minerals:	
Calcium	80mg/100g
Chloride	100mg/100g
Magnesium	5mg/100g
Potassium	15mg/100g
Phosphorus	0.74g/100g
Sodium	1.45g/100g

### Amino acid profile (g/16gN):

Alanine	3.1
Arginine	3.8
Aspartic acid	7.3
Cystine	0.4
Glutamic acid	22.3
Glycine	1.9
Histidine	3.2
Isoleucine	5.8
Leucine	10.1
Lysine	8.3
Methionine	3.0
Phenylalanine	5.4
Proline	10.5
Serine	6.3
Tyrosine	5.8
Threonine	4.6
Thryptophane	1.4
Valine	7.4

Please refer to the Certificate of Standards for guaranteed limits.

### Warranty

The details given in this document are merely intended for information purposes and are in no way legally binding. Consequently we accept no responsibility in the broadest sense of the word for damage that may result from applications based upon this information. Furthermore, this information does not constitute permission to infringe patent and licence rights.

DMV is a brand of **FrieslandCampina** 

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# Excellion™ EM 9

## Product information

### Description

Excellion™ EM 9 is a roller dried milk protein type fresh curd calcium caseinate, prepared from fresh skimmed milk.

### Ingredients

Milk protein.

### Additional label information

Excellion™ EM 9 conforms with EU requirements for non-GMO labelling. The product is kosher and halal certified.

### Applications

Excellion™ EM 9 is used in a wide range of food products like nutritional beverages, powdered dietetic formula, protein bars but also in processed cheese, imitation cheese and a range of processed meat and poultry products.

Solutions of Excellion™ EM 9 are characterised by a relatively low viscosity and a rather opaque appearance. In nutritional applications Excellion™ EM 9 is used as emulsifier/stabiliser, structure improver or simply as a highly nutritious protein and calcium source.

In processed cheese and imitation cheese Excellion™ EM 9 works beneficial in achieving certain structural and melting features.

Concentrated Excellion™ EM 9 solutions attain a high jelly-like viscosity if 1–2% salt is added; those salted jellies are widely used in meat products to improve firmness, sliceability and process yields.

### Range of products

Within the EM range DMV supplies a range of functional roller dried milk proteins for the food industry. Next to that DMV supplies a full range of spray dried milk proteins. A selection of milk proteins is available in instantised or agglomerated versions.

### Packaging

Multi layer paper bag with a polythene inner bag; content is 25kg. Palletised/wrapped to units of 1,000kg. Alternatively Excellion™ EM 9 can be supplied in big bags.

### Shelf life and storage conditions

In the original sealed multi layer paper bag under normal, odour free conditions of 5–25°C and max. 70% R.H. the product can be kept for 2 years.

### Typical analysis

#### Chemical

Protein (Nx6.38)	
As is	92.4%
On dry basis	>93.0%
Moisture	5.5%
Ash (825°C)	3.4%
Fat	0.8%
Lactose	0.25%
pH (10% sol. 20°C)	6.7
Scorched particles (ADPI)	Disc A

#### Physical/Organoleptic

Colour in solution	Milky
Taste/Odour	Neutral
Bulk density (tapped)	475g/L
Particle size (<800µm)	100%

#### Microbiological

Standard plate count	<50/g
Aerobic spore count	<10/g
E.coli	neg in 10 g
Sulphite reducing Clostridia	<5/g
Yeasts and moulds	<10/g
CP staphylococci	Neg. in 1g
Enterobacteriaceae	<1g
Salmonella	Neg. in 750g

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## Typical analysis



Nutritional	
Energy value	1,560kJ/100g
Minerals:	
Calcium	1.20g/100g
Chloride	100mg/100g
Magnesium	5mg/100g
Potassium	13mg/100g
Phosphorus	0.74g/100g
Sodium	22mg/100g

Amino acid profile (g/16gN):	
Alanine	3.1
Arginine	3.8
Aspartic acid	7.3
Cystine	0.4
Glutamic acid	22.3
Glycine	1.9
Histidine	3.2
Isoleucine	5.8
Leucine	10.1
Lysine	8.3
Methionine	3.0
Phenylalanine	5.4
Proline	10.5
Serine	6.3
Tyrosine	5.8
Threonine	4.6
Thryptophane	1.4
Valine	7.4

Please refer to the Certificate of Standards for guaranteed limits.

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