



### Lactoferm MFC-4 bulk Cheese-Tek®

#### Description:

Concentrated, lyophilized, lactic starter culture for Bulk Inoculation ideal to make cow's and goat's milk brined cheeses, such as Feta UF and Traditional Feta .  
Natural mesophilic-thermophilic culture composed in decreasing order by:

***Lactococcus lactis subsp. lactis***  
***Lactococcus lactis subsp. cremoris***  
***Streptococcus salivarius subsp. thermophilus***  
***Lactobacillus delbrueckii subsp. bulgaricus***

#### Dosage:

The culture is supplied in polyethylene/aluminium packet containing a single dose, for direct inoculation, with relevant phage-specific rotations. Code, units, production batch and expiry date are indicated on each packet.

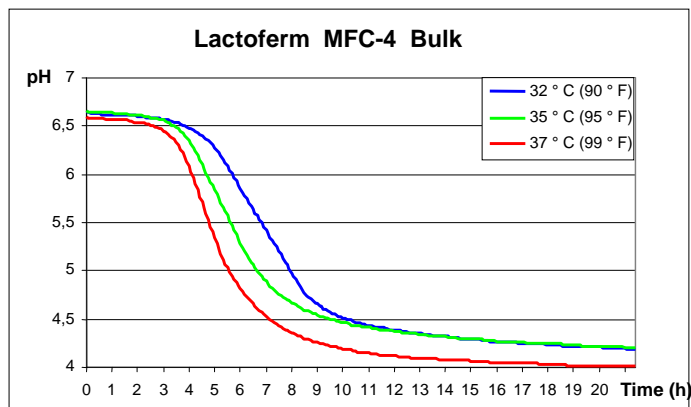
Recommended dosage:	1U for 100 lt of milk
Phage –specific rotation:	1-2-4-5-6-7 bulk

#### Modality of Use:

Take the culture from the freezer and use a sanitising agent to sanitise both the upper side of the packet and the tool used to open it. Sterilize the fermentation tank, fill the tanks with the pre-treated milk or whey.

Inoculate the culture in the milk at 32 °C . Shake for some minutes to distribute culture evenly and wait until reach pH 4.8 . Cool the liquid until temperature reach +5 °C. The bulk prepared in this way can be used until 3 days from the date of the production with an inoculum from 1.5 to 3 % .

#### Fermenting activity:



Method: ISO 26323/IDF 213:2009	Substrate: Reconstituted skim milk 9,5% RSM
Heat treatment: 110°C x30'	Inoculation: 1 Ux100 lt of milk

#### Declaration of GMO and Allergens:

The product MFC-4 bulk does not contain any genetically modified microorganisms and is produced in compliance with Regulation (EC) No. 1829-1830/2003 and 1169/2011 as further amendments.

Allerges	Yes	No
Cereals containing gluten		X
Crustaceans		X
Eggs		X
Fish		X
Peanuts		X
Soy (GMO-free)		X
Milk	X	
Nuts		X
Celery		X
Mustard		X
Sesame seeds		X
Sulphur dioxide and Sulphits (>10mg/kg)		X
Lupins		X
Shellfish		X

#### Culture characteristics:

Optimum temperature for growth:	32 - 37 °C
Maximum temperature of heating:	44 °C
Gas production:	-
Proteolytic activity:	++
Fermenting activity:	+++
Salt Tolerance (expressed as 50% Inhibition )	3% NaCl

#### Storage and Expiry:

If is stored in its original sealed packaging at a temperature of -18°C, the product keeps its characteristics unaltered for 24 months or for 3 months at +5°C.



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#### Microbiological controls:

Microorganisms	Method	Result
Total cell count Non lactic acid bacteria	UNI EN ISO 4833 ISO 27205/IDF149:2010	$\geq 5.0 \text{ E}+10 \text{ CFU/g}$ < 500 CFU/g
Coliform bacteria	ISO 4832:2006	<10 CFU/g
Enterobacteriaceae	ISO 21528-2:2004	<10 CFU/g
Yeasts	ISO 21527-1:2008	<10 CFU/g
Moulds	ISO 21527-1:2008	<10 CFU/g
Heteroferm. lactobacilli	INT. MET. 010	<10 CFU/g
Coagulase positive staphylococci	UNI ISO 6888-2:2004	<10 CFU/g
Salmonella spp.	UNI ISO 6579:2004	None/25 g
Listeria monocytogenes	UNI EN ISO 11290-1:2005	None/25 g
E.coli	ISO 118666-1:2005/IDF170-1:2005	Neg.
Mycotoxins	ISO 14675:2003/IDF186:2003	Neg.
Antibiotics	ISO 10932:2010/IDF223:2010	Neg.

#### Heavy metal controls:

Metal tested	EU Limits (except Arsenic) stated for final products (EC 1881/2006)	Results in final food product (inoculation rate of 0,02 %)
Cadmium (Cd)	< 0.05 mg/Kg	< 0,00013 mg/kg
Lead (Pb)	< 0,020 mg /kg	< 0,000009 mg /kg
Arsenic (As)	< 3 mg /kg	< 0,0012 mg /kg
Mercury (Hg)	< 0,1 mg/kg	< 0,0007 mg /kg

#### Chemical controls:

Chemical element	Ref. Min-Max	Average
Carbohydrate %	30-38	32
Fat %	0-2	0,6
Protein (Nx6.25) %	40-45	42
Energy (Kj/100g) calc.	1300-1500	1380
Sodium (Na) mg/kg	No limits	25000
Water %	5-15	8

Invoice n°	
Lot n°	
Date of production	
Date of Expiry	