

**PRODUCT DESCRIPTION - PD 207429-12.0EN****Material no. 66914****FR 13 LYO 10 D**

CHOOZIT® Cheese Cultures

**Description**

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Aroma developing and coloring culture for cheese.

The culture is a freeze-dried powder.

**Usage levels**

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Minimum inoculation levels:

1 dose / 1000 litres of milk if inoculated before renneting,

2 doses / 1000 litres of milk (or 100 kg of cheese) using direct surface application.

The quantities of inoculation indicated should be considered as guidelines. Additional amount of cultures may be required depending on technology and product properties desired. Users of this product shall conduct their own risk assessment to determine (i) the suitability of the product based on such user's process parameters and (ii) whether the product fits for the purpose of the intended use.

IFF does not accept any liability in these respects.

**Directions for use**

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Inoculation into milk before renneting.

Dilution for use in spray : it is recommended to rehydrate the whole content of the pouch in a sterile isotonic solution (0.9% NaCl) enriched or not with 0.1% tryptone and or 0.1% glucose. This solution can be stored for a maximum of 16h at 5°C +/- 1°C.

**Composition**

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*Brevibacterium linens*

carrier: dextrose

**Properties**

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- *Corynebacteria*, especially *Brevibacterium linens* grow on cheese surface because of their aerobic characteristic and salt resistance. However, these microorganisms are acido-sensitive and need a pH higher than 5,50 in order to grow.

- *Brevibacteria* are responsible for orange colouring when developing on the surface of soft cheese with surface mould or smear flora.

- These strains play an important role during ripening because of their enzymatic activities and their ability to produce aroma compounds particularly sulphur aroma.

- When used in combination with *Geotrichum* or *Penicillium*, it allows to differentiate cheese types by a mixed surface.

- Control of contaminants

- Thanks to its rapid development FR 13 LYO 10 D gives sulphur aromatic profile in short time and reduces the number of ripening treatments. These specific properties allow productivity gains and improvement of quality. Moreover, the colouring obtained, light for FR 22 and strong for FR 13 is very stable.

**Physical/chemical specifications**

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White to brown colored free-flowing product with typical odor of fermented product, without any foreign material as per process-defined risk mitigation, color can vary from batch to batch

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#### Microbiological specifications

Microbiological quality control - standard values

Cell count	5.0E+10 CFU / dose
Tolerance:	from 3.8E+10 to 10.0E+10 CFU
Aerobic contaminant	< 100 CFU/g
Enterobacteriaceae	< 10 CFU/g
Yeasts and Moulds	< 10 CFU/g
Enterococci	< 100 CFU/g
Clostridia spores	< 10 CFU/g
Coagulase-positive staphylococci	< 10 CFU/g
Listeria monocytogenes	neg. / 25 g
Salmonella spp.	neg. / 25 g

Analytical methods available upon request

#### Storage

18 months from date of production at  $\leq -18\text{ }^{\circ}\text{C}$   
 6 months from shipment date at  $+4\text{ }^{\circ}\text{C}$  without exceeding shelf life indicated on label.

#### Packaging

These freeze-dried cultures are packaged in sachets. The following information is printed on each sachet: Product name, dosage, batch no and shelf life at  $-18\text{ }^{\circ}\text{C}$ .

#### Quantity

Unit pack: box of 50 sachets

#### Purity and legal status

Local regulations should always be consulted concerning the status of this product, as legislation regarding its intended use may vary from country to country.

#### Safety and handling

SDS is available on request.

The information contained in this publication is based on our own research and development work and is to the best of our knowledge reliable. Users should, however, conduct their own tests to determine the suitability of our products for their own specific purposes and the legal status for their intended use of the product. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for the infringement of any patents.

#### Kosher status

Kosher certificate available on request.

#### Halal status

Halal certificate available on request

#### Allergens

Below table indicates the presence (as added component) of the following allergens and products thereof:

Yes	No	Allergens	Description of components
	X	wheat	
	X	other cereals containing gluten	
	X	crustacean shellfish	
	X	eggs	
	X	fish	
	X	peanuts	
	X	soybeans	
	X	milk (including lactose)	
	X	nuts	
	X	celery	
	X	mustard	
	X	sesame seeds	
	X	sulphur dioxide and sulphites (> 10 mg/kg)	
	X	lupin	
	X	molluscs	

Local regulation has always to be reviewed and checked by the user of this product as allergen labelling requirements may vary between countries.

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**Additional information**

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The values indicated in this document correspond to results from standardized laboratory tests conducted by IFF. In practice, other values can be expected depending on the test type and technology used. Due to advances in testing capabilities and continuous product improvement it may be necessary to change standard values in the future.

FR 13 LYO 10 D is manufactured in compliance with applicable global food safety standards. The third party certificate of the manufacturing site is available upon request.

**GMO status**

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FR 13 LYO 10 D does neither consist of GMO, contain GMO nor is produced from GMO according to the definitions of EU Regulation 1829/2003 and 1830/2003.

**Country of origin**

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France