LYOFAST LB. CASEI LC4 P1

Technical Data Sheet

General information

Description

LYOFAST LB. CASEI LC4 P1 is a freeze-dried culture consisting of selected strains of *Lactobacillus casei*.

LYOFAST LB. CASEI LC4 P1 is a food culture inhibiting *Clostridium* spp., and so inhibiting butyric fermentation in cheese when used as adjunct culture and growing as secondary flora or NSLAB in cheese. This product is part of the **4Protection**- food cultures with protective effect - that helps to control and preserve the final product from alteration, fighting in a completely natural way any undesirable microorganisms. **4Protection** line is compatible and complementary to all Sacco's starter cultures.

LYOFAST LB. CASEI LC4 P1 has been developed by the team of Prof. Ylva Ardoe at KU Life.

Application

Please note that the entire culture must be used at one time.

Specifically, culture performance cannot be guaranteed if the blended culture is divided and used in smaller portions. Furthermore, we suggest the entire culture is added directly into the process substrate, under aseptic conditions, and it is ensured the culture is well dispersed by gentle stirring.

The following may be used as inoculation guidelines:

Product	Dose / 100 L	Product	Dose / 100 L
Semi-hard cheese	1.0-10.0	Hard cheese	1.0-10.0
Soft cheese	1.0-10.0	Semi-soft cheese	1.0-10.0

Technical Information

Inoculation guideline: 1 dose is 10^{11} CFU and inoculated in 100 l milk 1 dose gives approx. 10^{6} CFU/ml milk.

Data are obtained under standardised laboratory conditions, and consequently, should be considered as guidelines:

Trait	Result
Optimal temperature for growth	25-45 °C (77-113 °F)
Protection attitude at	4-10 °C (39.2-50 °F)

Microbiological specifications

Assay	Result	Method (Reference)
Bacillus cereus	< 100 CFU/g	M10 (ISO 7932)
Coagulase positive staphylococci*	< 10 CFU/g	M11 (ISO 6888-1-2)
Enterobacteriaceae	< 10 CFU/g	M02 (ISO 21528-1-2-3)
Escherichia coli	< 1 CFU/g	M27 (ISO 11866-1-2/IDF 170)
*Listeria monocytogenes**	Not detected in 25 g	M13 (ISO 11290-1-2)
Yeast and mould	< 10 CFU/g	M03 (ISO 6611/IDF 94)
Salmonella spp.*	Not detected in 25 g	M12 (ISO 6785/IDF 93)

** Analysed on regular basis. Analytical methods are available upon request.*

Safety information

Heavy metal analysis

Heavy metal*	Amount (ppm)
Pb (lead)	< 1 ppm
Hg (mercury)	< 0.03 ppm
Cd (cadmium)	< 0.1 ppm

**Analyzed on a regular basis.*

Safety sheet

This product is not hazardous; therefore provision of a Safety Data Sheet (SDS) is not mandatory (REACH Art. 31).
A Safety Information Data Sheet has been made as a voluntary presentation of certain information that may assist the user in the handling. The safety information is available upon request.

GMO status

Sacco organisms are not genetically modified (GMO), in accordance to the European Directive 2001/18/EC. This product does not require labelling with regard to the use of GMO, in accordance to Regulation (EC) No. 1829/2003, and Regulation (EC) No. 1830/2003.

Allergens

The raw materials used are free of the following components and their products thereof: cereals containing gluten, crustaceans, eggs, fish, peanuts, soybeans, nuts, celery, mustard, sesame seeds, sulphur dioxide and sulphite, lupin and molluscs.
This product contains MILK.
The list of allergens is in compliance with Regulation (EC) 1169/2011.

BSE/TSE status

This product is considered safe with respect to bovine spongiform encephalopathy (BSE) or transmissible spongiform encephalopathies (TSEs) transmissions in accordance to Regulation EMA 410/01 rev. 3.

Other information

Colorants

This product does not contain added colorants, in accordance to Regulation (EC) 1333/2008.

Packaging information

The freeze-dried culture is packaged inside waterproof and airproof pouches, consisting of three layers (in order, going inwards): polyester, aluminium, and polyethylene.
The packaging material used is food grade.

Storage and shelf-life

Cultures should be preferably stored, at -18 °C (-0.4 °F), or below.
Under these conditions and in the original sealed package, the shelf-life of the product is 18 months.

Certificate of analysis

Lot's certificate of analysis is available upon request.

Certifications

General

Sacco S.r.l. is ISO 22000 and FSSC 22000 certified since 2014. Certificates are available in the web site www.saccosystem.com.

Kosher

Sacco cultures are generally Kosher approved. Please consult Certificates that are available in the web site www.saccosystem.com.

Halal

Sacco cultures are generally Halal approved. Please consult Certificates that are available in the web site www.saccosystem.com.

Service and technical support

This product complies the Russian GOST 34372-2017 standard.
Please contact your distributor for guidance and instructions for your choice of culture and processing. Information about additional package sizes and sales units is also available upon request.

Liability

The information provided is to the best of our knowledge true, and given in good faith. No guarantee against patent infringement is implied or inferred.
This may not be the most updated version of the TDS. For the latest version of this document please visit our website or contact your distributor.