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Valid from: July 10, 2009

PRODUCT DESCRIPTION - PD 205659-12.0EN

CHOOZIT[™] Alp D LYO 100 DCU

CHOOZIT[™] Cheese Cultures

Description

Concentrated, freeze-dried culture for direct inoculation of process milk

Defined multiple-species culture

Usage levels

| Product | Dose |
|------------------|---------------------|
| semi-hard cheese | 10 - 15 DCU / 100 I |
| hard cheese | 7 - 10 DCU / 100 I |

The quantities of inoculation indicated should be considered as guidelines. Supplement cultures may be required depending on technology, fat content and product properties desired.

We do not accept any liability in case of undue application.

Directions for use

Disinfect opening area with ethanol (approx. 70 %) before opening package. Cut open and add culture to process milk under aseptic conditions. It has to be considered that the whole content of the pouch has to be applied per propagation in order to assure constant product quality.

Composition

Lactococcus lactis subsp. lactis Lactococcus lactis subsp. cremoris Lactococcus lactis subsp. lactis biovar. diacetylactis Streptococcus thermophilus Lactobacillus helveticus Lactobacillus lactis

Properties

CHOOZIT[™] Alp D LYO 100 DCU represents a medium to fast acidifying culture for the production of semi-hard and hard cheese. Due to its slow citrate fermentation, only little CO2 is formed slowly. CHOOZIT[™] Alp D LYO 100 DCU has a higher proteolytic activity than purely mesophilic cultures due to the addition of Lb. helveticus and Lb. lactis which improves the aroma in semi-hard and hard cheeses.

Physical/chemical specifications

Direct inoculation:

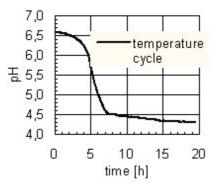
Test medium: reconstituted skimmilk with 9 % of dry matter heated at 95 \pm 3 °C for 30 min

Fermentation: Inoculation amount: 10 DCU / 100 I (1 pouch / 1,000 I) incubation temperatures: 60 min at 32 °C in 40 min to 40 °C 20 min at 40 °C 240 min at 37 °C in 60 min to 20 °C 14 h at 20 °C

pH after 5 h

 5.75 ± 0.15

Standard acidification curve



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.



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Microbiological specifications

Microbiological quality control - standard values and methods [UM-]

Examination of culture:

| Cell count streptococci | 1.0 (0.5-5.0)E+10 / g |
|----------------------------|-----------------------|
| Sileptococci | [UM-015] |
| lactobacilli | 1.0 (0.5-5.0)E+09 / g |
| | (UM-009) |
| lactococci | 1.0 (0.5-5.0)E+11 / g |
| | [UM-003] |
| Lc. diacetylactis | 1.0 (0.5-5.0)E+09 / g |
| | [UM-003] |
| non-lactic acid bacteria | < 100 / g [UM-030] |
| enterobacteriaceae | < 1 / g [UM-031] |
| yeasts and moulds | < 10 / g [UM-017] |
| enterococci | < 10 / g [UM-033] |
| Staphylococcus aureus | < 1 / g [UM-034] |
| clostridia spores | < 10 / g [UM-037] |
| Bacillus cereus* | < 10 / g [UM-041] |
| salmonellae* | neg. / 25 g [UM-038] |
| listeria* | neg. / 25 g [UM-039] |

* not necessarily examined for each lot, but ensured by HACCP system as well as by plant and personnel hygiene.

Storage

12 months from date of production at <= -18 °C

Packaging

PE, PET, AI laminated foil

Purity and legal status

CHOOZIT[™] Alp D LYO 100 DCU meets the specification laid down by the EU legislation.

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

DANISCO First you add knowledge...

Material no. 11205063

Safety and handling

MSDS is available on request.

Kosher status

Dairy Kosher

Halal status

certified by Islamic Food Council of Europe

Allergens

Below table indicates the presence of the following allergens and products thereof:

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

Local regulation has always to be consulted as allergen labelling requirements may vary from country to country.

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Additional information

The values indicated in this document correspond to results from standardized laboratory tests. They should be considered as guidelines. In practice, other values are expected depending on the type of product and technology. Due to advances in technology and continuous product improvement it may be necessary to change standard values in the future.

GMO status

CHOOZIT[™] Alp D LYO 100 DCU does not consist of, nor contains, nor is produced from genetically modified organisms according to the definitions of Regulation (EC) 1829/2003 and Regulation (EC) 1830/2003 of the European Parliament and of the Council of 22 September 2003.



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