

Product Information

Version: 3 PI-EU-EN 11-23-2011

Description Defined thermophilic lactic acid culture. The culture enhances the overall flavor

intensity of the cheese by accentuating important flavor notes.

Taxonomy Lactobacillus helveticus

Packaging Material No: Size Type

100116 10X50 U Pouch(es) in box

Physical Properties Color: Off-white to slightly reddish or brown

Form: Granulate

Application Usage

The culture is primary applied in the production of Italian and Swiss cheese varieties. The culture can be applied alone or in combination with other lactic cultures, e.g. *Streptococcus thermophilus* and *Lactobacillus delbrueckii* subsp. *bulgaricus* and LD culture.

Suggested dosage

As a principal rule 1000 U of freeze-dried DVS cultures will correspond to 100 I of active bulk starter. However, specific usage rates should be determined experimentally before a new application.

Recommended inoculation rate

Amount of milk to be inoculated (in liters)	500	2,000	5,000	10,000	15,000	20,000	25,000	
Amount of DVS culture	50 U	200 U	500 U	1,000 U	1,500 U	2,000 U	2,500 U	
Amount of milk to be inoculated (in lbs)	1,140	4,500	11,350	22,700	34,000	45,500	57,000	
Amount of DVS culture	50 U	200 U	500 U	1,000 U	1,500 U	2,000 U	2,500 U	

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Range

Shelf life

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Directions for Use

Remove cultures from the freezer just prior to use. **Do not thaw** Sanitize the top of the pouch with chlorine. Open the pouch and pour the freeze-dried granules directly into the pasteurized product using slow agitation. Agitate the mixture for 10-15 minutes to distribute the culture evenly. The recommended incubation temperature is dependent on the application in which the culture is used. For more information on specific applications see our technical brochures and suggested recipes.

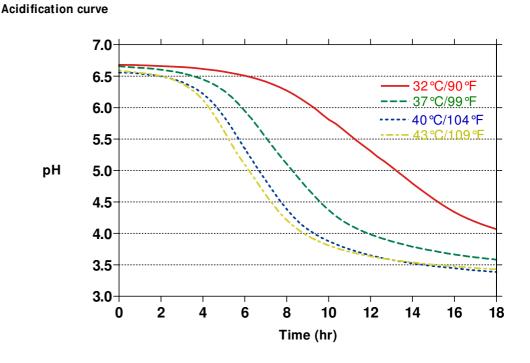
Cultures in this series include LH-B01, LH-B02 and LH-32.

Storage and handling < -18 °C / < 0 °F

At least 24 months from date of manufacture when stored according to recommendations.

At +5 °C (41 °F) the shelf life is at least 6 weeks.

Technical Data Ac



Fermentation conditions: Lab milk 9.5 % T.S.: 140 $^{\circ}$ C/8 seconds - 100 $^{\circ}$ C/30 minutes Inoculation: 500U/5000L

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Analytical Methods

References and analytical methods are available upon request.

Legislation Chr. Hansen's cultures comply with the general requirements on food safety laid down

in Regulation 178/2002/EC. Lactic acid bacteria are generally recognized as safe and can be used in food, however, for specific applications we recommend to consult

national legislation.

The product is intended for use in food.

Food Safety No guarantee of food safety is implied or inferred should this product be used in

applications other than those stated in the Usage section. Should you wish to use this product in another application, please contact your Chr. Hansen representative for

assistance.

Labeling Suggested labeling "lactic acid culture" or "starter culture", however, as legislation may

vary, please consult national legislation.

Trademarks Product names, names of concepts, logos, brands and other trademarks referred to in

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marked with an $\ensuremath{\mathbb{B}}.$

Dietary status Kosher: Kosher Dairy Excl. Passover

Halal: Certified

Technical support Chr. Hansen's Application and Product Development Laboratories and personnel are

available if you need further information.

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GMO Information

In accordance with the legislation in the European Union* we can state that <u>FD-DVS LH-B02</u> does not contain GMOs and does not contain GM labeled raw materials**. In accordance with European legislation on labeling of final food products** we can inform that the use of <u>FD-DVS LH-B02</u> does not trigger a GM labeling of the final food product. Chr. Hansen's position on GMO can be found on: www.chr-hansen.com/About us/Policies and positions/Quality and product safety.

Allergen Information

List of common allergens in accordance with the US Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA) and EU labeling Directive 2000/13/EC with later amendments	Present as an ingredient in the product	
Cereals containing gluten* and products thereof	No	
Crustaceans and products thereof	No	
Eggs and products thereof	No	
Fish and products thereof	No	
Peanuts and products thereof	No	
Soybeans and products thereof	No	
Milk and products thereof (including lactose)	Yes	
Nuts* and products thereof	No	
List of allergens in accordance with EU labeling Directive 2000/13/EC only		
Celery and products thereof	No	
Mustard and products thereof	No	
Sesame seeds and products thereof	No	
Lupine and products thereof	No	
Mollusks and products thereof	No	
Sulphur dioxide and sulphites at concentrations of more than		
10 mg/kg or 10 mg/litre expressed as SO ₂	No	

^{*} Please consult the EU Labeling Directive 2000/13 Annex IIIa for a legal definition of common allergens, see European Union law at: www.eur-lex.europa.eu

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^{*} Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC.

^{**} Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed.

Regulation (EC) No 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labeling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC.