

TCC-20 Product Information Version: 6 PI EU EN 11-11-2019

Description Defined thermophilic lactic acid culture.

Culture composition: Lactobacillus helveticus Streptococcus thermophilus

Material No:	713498	Color:	Off-white to slightly reddish or brown
Size	30X50 U	Format:	FD-DVS
Туре	Pouch(es) in box	Form:	Granulate

Storage and handling

< -18 °C / < 0 °F

Shelf life

At least 24 months from date of manufacture when stored according to recommendations. At $+5^{\circ}C$ (41°F) the shelf life is at least 6 weeks.

Application

Usage

The culture is primarily applied in the production of Pasta Filata cheese types, e.g. Mozzarella and Pizza cheese types.

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.

Amount of milk to be inoculated (in liters)	1,000 l	2,500 l	5,000 l	7,500 l	10,000 l	
Amount of DVS culture	100 U	250 U	500 U	750 U	1,000 U	
Amount of milk to be inoculated (in lbs)	2,270 lbs	5,600 lbs	11,350 lbs	17,000 lbs	22,700 lbs	
Amount of DVS culture	100 U	250 U	500 U	750 U	1,000 U	

Recommended inoculation rate

Designed for optimal performance, the composition and recommended inoculation rate for this culture were carefully developed by use of unique microbial strains, advanced biotechnological principles and more than 140 years of accumulated experience from the dairy industry.

Warning: Applying lower than recommended inoculation rate may cause undesired variation in product quality, lower production efficiency, product yield losses, potential fermentation failures and an increased risk of bacteriophage attacks.

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Directions for Use

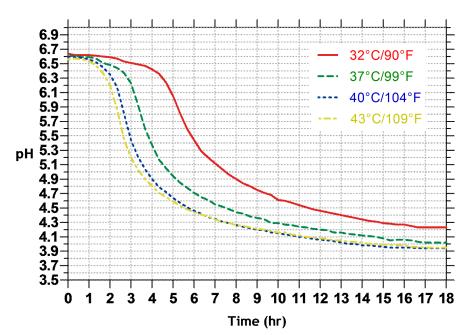
Remove cultures from the freezer just prior to use. Sanitize the top of the pouch with chlorine. Open the pouch and pour the freeze-dried granules directly into the pasteurized product using slow agitation. Agitate the mixture for 10-15 minutes to distribute the culture evenly. The recommended incubation temperature is 35-45°C (95-113°F). For more information on specific applications see our technical brochures and suggested recipes.

Range

Cultures in this series include TCC-3, TCC-4, TCC-5, TCC-6 (freeze-dried) and TCC-20 (frozen and freeze-dried).

Technical Data

Acidification curve



Fermentation conditions: Lab milk 9.5 % T.S.: 140°C/8 seconds - 100°C/30 minutes Inoculation: 500U/5000L

Analytical Methods

References and analytical methods are available upon request.

Dietary information

Kosher:	Kosher Dairy Excl. Passover
Halal:	Certified
VLOG:	Conform

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.

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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 this document, whether or not appearing in large print, bold or with the ® or TM symbol are the property of Chr. Hansen A/S or an affiliate thereof or used under license. Trademarks appearing in this document may not be registered in your country, even if they are marked with an ®.

Technical support

Chr. Hansen's Application and Product Development Laboratories and personnel are available if you need further information.

GMO Information

In accordance with the below mentioned legislation of the European Union we can inform that:

TCC-20 is not a GM (genetically modified) food *.

It does not contain or consist of GMOs and is not produced from GMOs in accordance with Regulation 1829/2003* on GM food and feed.

As such GM labelling is not required for $\underline{\text{TCC-20}}$ or the food it is used to produce^{**}. Moreover, the product does not contain any GM labelled raw materials.

* 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 labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC.

Please note the information presented here does not imply that the product can either be used in, or is externally certified to be used in, food or feed labelled as 'organic' or 'GMO free'. Requirements to make these claims vary per country, please contact us for more information.

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Allergen Information		
List of common allergens in accordance with the US Food Allergen Labeling and	Present as an	
Consumer Protection Act of 2004 (FALCPA) and EU Regulation 1169/2011/EC with later	ingredient in	
amendments	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 Regulation 1169/2011/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 (added) at concentrations of more than		
10 mg/kg or 10 mg/litre expressed as SO ₂	No	

* Please consult the EU Regulation 1169/2011 Annex II for a legal definition of common allergens, see European Union law at: www.eur-lex.europa.eu

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