FD-DVS CHN-22 eXact®

Product Information
Version: 4 PI-EU-EN 11-23-2011

Description
Mesophilic aromatic culture, type LD. The culture produces flavor and CO₂.

Taxonomy
Lactococcus lactis subsp. cremoris
Leuconostoc
Lactococcus lactis subsp. lactis biovar diacetylactis
Lactococcus lactis subsp. lactis

Packaging
Material No: 100101
Size: 10X50 U
Type: Pouch(es) in box

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

Application
Usage
The culture can be used in the manufacture of the following products
- soft cheese with slow acidification (Lactic cheese, Camenbert, Blue Cheese)
- cheese varieties with eyes (Gouda, Edam)
- fermented milk products manufactured by separation method (Sour Cream, Fromage Frais)
- lactic butter.

Recommended inoculation rate

<table>
<thead>
<tr>
<th>Amount of milk to be inoculated</th>
<th>500 L/ 130 gal</th>
<th>2,000 L/ 520 gal</th>
<th>5,000 L/ 1,300 gal</th>
<th>10,000 L/ 2,600 gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of DVS culture</td>
<td>50 U</td>
<td>200 U</td>
<td>500 U</td>
<td>1,000 U</td>
</tr>
</tbody>
</table>

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.

Range
Cultures in this series of undefined mixed Direct Vat Set (DVS®) cultures includes CHN-12, CHN-13, CHN-14 and CHN-22. Please consult our technical brochures on eXact® and Soft Cheese for further information.
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**Storage and handling**

< -18 °C / < 0 °F

**Shelf life**

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**

**Acidification curve**

![Acidification Curve Diagram]

**Fermentation conditions:**
Semi fat milk (1.5 %) (85°C/185°F, 30 minutes)
Inoculation: 500U/2500L

**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.

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www.chr-hansen.com

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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 used under license. Trademarks appearing in this document might not be registered in your country, even if they are marked with an ®.

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.

GMO Information
In accordance with the legislation in the European Union* we can state that FD-DVS CHN-22 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 FD-DVS CHN-22 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**

<table>
<thead>
<tr>
<th>Common Allergen</th>
<th>Present as an ingredient in the product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals containing gluten* and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Crustaceans and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Eggs and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Fish and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Peanuts and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Soybeans and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Milk and products thereof (including lactose)</td>
<td>Yes</td>
</tr>
<tr>
<td>Nuts* and products thereof</td>
<td>No</td>
</tr>
</tbody>
</table>

**List of allergens in accordance with EU labeling Directive 2000/13/EC only**

<table>
<thead>
<tr>
<th>Allergen</th>
<th>Present as an ingredient in the product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celery and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Mustard and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Sesame seeds and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Lupine and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Mollusks and products thereof</td>
<td>No</td>
</tr>
<tr>
<td>Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO₂</td>
<td>No</td>
</tr>
</tbody>
</table>

* 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