FD-DVS XPL-1 eXact®
Product Information
Version: 3 PI-EU-EN 12-12-2011

Description
Blend of mesophilic aromatic eXact® culture, type LD and thermophilic culture. The eXact-Plus culture produces texture, flavor and CO₂.

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

Packaging
<table>
<thead>
<tr>
<th>Material No:</th>
<th>Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>675876</td>
<td>10X50 U</td>
<td>Pouch(es) in box</td>
</tr>
</tbody>
</table>

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

Application
Usage
Manufacturing of the following fermented milk products:
- Kefir type products
- Crème fraîche/sour cream
Fermented milks produced with XPL cultures will have extra high texture, high flavor and medium CO₂.

Suggested dosage
50-100U/500 l milk.

Recommended inoculation rate

<table>
<thead>
<tr>
<th>Amount of milk to be inoculated</th>
<th>500 l</th>
<th>1,000 l</th>
<th>5,000 l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of DVS culture</td>
<td>130 gal</td>
<td>260 gal</td>
<td>1,300 gal</td>
</tr>
<tr>
<td></td>
<td>50 - 100 U</td>
<td>100 - 200 U</td>
<td>500 - 1,000 U</td>
</tr>
</tbody>
</table>
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Directions for Use
Remove cultures from the freezer just prior to use. Do not thaw. Sanitize the gable top of the carton with chlorine. Open the carton and pour the frozen pellets 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 30-35˚C (86-95˚F). For more information on specific applications see our technical brochures and suggested recipes.

Range
Cultures in the XPL- series include XPL-1 and XPL-2. The two cultures are phage unrelated and can be used in phage rotation. The eXact® range of Direct Vat Set (DVS®) cultures spans from cultures providing some diacetyl flavor and low CO₂ production to those giving a high diacetyl flavor and sparkling effect (high CO₂ formation) with varying viscosity profiles. Please consult our technical eXact® brochure for further information.

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

Shelf life
At least 24 months
At +5°C (41°F) the shelf life is at least 6 weeks.
Technical Data

Fermentation conditions:
Semi fat milk (2 %) (85°C/185°F, 30 minutes)
Inoculation: 100U/500L

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.
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Trademarks
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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 XPL-1 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 XPL-1 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>Allergen Description</th>
<th>Present as an ingredient in the product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals containing gluten* and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Crustaceans and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Eggs and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Fish and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Peanuts and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Soybeans and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Milk and products thereof (including lactose)</td>
<td>Present</td>
</tr>
<tr>
<td>Nuts* and products thereof</td>
<td>Absent</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Allergen Description</th>
<th>Present as an ingredient in the product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celery and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Mustard and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Sesame seeds and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Lupine and products thereof</td>
<td>Absent</td>
</tr>
<tr>
<td>Mollusks and products thereof</td>
<td>Absent</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>Absent</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