Viniflora® LS CH11

Product Information
Version: 3 PI GLOB EN 05-26-2017

Description
Viniflora® LS CH11 is a frozen concentrated pure culture of Oenococcus oeni. It is a heterofermentative malolactic bacteria which has been selected to ensure a fast and safe malolactic fermentation when inoculated directly into wine. The culture has an excellent allround tolerance towards pH, alcohol, temperature and SO₂.

Culture composition:
Oenococcus oeni.

Material No: 696279
Size: 15X10000 L
Type: Bag(s) in box
Color: Off-white to slightly brown
Format: F-DVS
Form: Frozen pellets

Storage
<-45 °C /<-49 °F

Transport condition
The frozen cultures should be transported using dry ice, with a maximum transit time of 72 hours.

Shelf life
When stored according to recommendation the product has a shelf life of 24 months.

Application
This culture has been selected for its outstanding performance and capability to perform malolactic fermentation in difficult white wines. This strain performs very well in rosé and white wines but has also been used successfully in red wines. Among the features are:

- Direct inoculation into wine
- High numbers of active cells which ensure a quick start of fermentation
- High level of microbiological purity
- Outstanding tolerance to low pH and elevated levels of SO₂
- Strong fermenter under harsh white wine conditions
- Low production of volatile acidity
- Does not produce biogenic amines*

*During malolactic fermentation, indigenous bacteria often produce biogenic amines from amino acids. This strain of malolactic bacteria has been selected using state-of-the-art techniques in screening, analyses or production to deliver malolactic cultures unable to produce the following biogenic amines: histamine, tyramine, putrescine, phenylethylamine, isoamylamine, cadaverine.

For further information about biogenic amines in wines and how to avoid them please consult the OIV code of good vitivinicultural practices to minimize biogenic amines: http://www.oiv.int/oiv/info/enguidesoiv#biogenic

www.chr-hansen.com

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Directions for use  
This frozen culture should always be inoculated directly into the wine. No rehydration, reactivation or acclimatization is required.

Remove cultures from the freezer just prior to use to ensure optimal performance. Prolonged exposure to temperatures above -45°C before inoculation will damage the quality of the cultures. Do not thaw. Open the package and pour the frozen pellets directly into the wine. Make sure the culture is added to the liquid phase of the wine, and that the culture is completely dissolved in the wine. For more information on inoculation, please contact your local Chr. Hansen Representative to acquire the appropriate inoculation protocol.

Technical Data  

Physiological data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoculation temperature range</td>
<td>14-25°C (57-77°F)</td>
</tr>
<tr>
<td>pH minimum*</td>
<td>3.0</td>
</tr>
<tr>
<td>Total SO₂ max. at inoculation*</td>
<td>35 ppm</td>
</tr>
<tr>
<td>Alcohol maximum *</td>
<td>15 % vol</td>
</tr>
</tbody>
</table>
* note that these inhibitory factors are antagonistic towards each other. The individual tolerances are valid only if other conditions are favourable. Check level of SO₂ produced by the yeast used for primary fermentation and be aware of level of free SO₂.

Legislation
Chr. Hansen’s cultures comply with the general requirements on food safety laid down in Regulation 178/2002/EC. Malolactic bacteria are generally recognized as safe and can be used in food, however, for specific applications we recommend to consult national legislation.

Food Safety
No guarantee of food safety is implied or inferred should this product be used in applications other than those stated above. Should you wish to use this product in another application, please contact your Chr. Hansen representative for assistance.

Labeling
No labeling required, however please consult local legislation if in doubt.

Trademarks
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Additional Information
Check the latest news on www.chr-hansen.com/food-cultures-and-enzymes/wine

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*, Viniflora® LS CH11 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 Viniflora® LS CH11 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 Regulation 1169/2011/EC with later amendments

| 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) | No |
| 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 SO2 | 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