



*Improving food & health*

## Viniflora® Oenos

### Product Information

Version: 3 PI GLOB EN 12-27-2019

### Description

Viniflora® Oenos is a freeze-dried 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 SO<sub>2</sub>. The culture can be used both in red and white wines.

### Culture composition:

*Oenococcus oeni*.

<b>Material No:</b>	713569	<b>Color:</b>	Off-white to slightly brown
<b>Size</b>	50X2500 L	<b>Format:</b>	FD-DVS
<b>Type</b>	Pouch(es) in box	<b>Form:</b>	Granulate

### Storage

< -18 °C / < 0 °F

### Shelf life

When stored according to recommendation the product has a shelf life of 36 months.

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

### Application

This culture has been selected for its overall outstanding performance and capability to perform a fast and safe malolactic fermentation in most red and white 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
- Low production of volatile acidity
- Excellent all round tolerance towards pH, alcohol, temperature and SO<sub>2</sub>
- 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>

### Directions for use

This freeze-dried culture should be used for direct inoculation into wine. No rehydration or reactivation is required.

1. Remove the pouch from the freezer 15 min. prior to use and place it at room temperature. Make sure that the dosage complies with the amount of wine to be inoculated.

2. Open the pouch and add the granulated culture directly to wine. The culture can be dissolved in a smaller volume first and added to the total volume right after, if required. The culture should be completely dissolved in the wine.

**Viniflora® Oenos**

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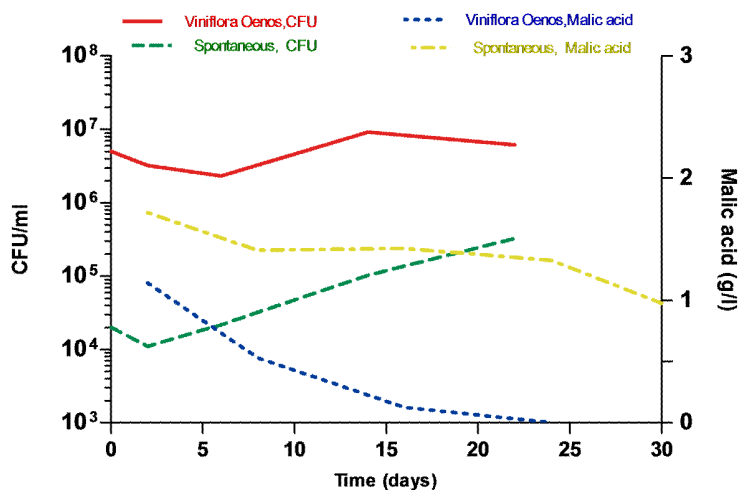
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**Technical Data**

**Performance**

Viniflora® Oenos degraded the malic acid before 14 days of fermentation, compared to the spontaneous tank, where only a small amount of malic acid was degraded after 30 days.



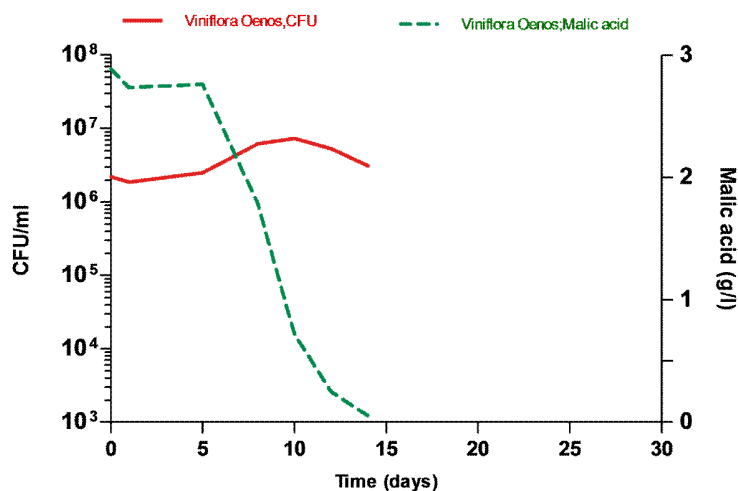
Shiraz Sonoma valley winery  
Ethanol 13.6 vol%, pH 3.3, SO<sub>2</sub> 18 ppm

Viniflora® Oenos degraded the malic acid in 14 days of fermentation.

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Pinot noir Carneros (US) winery  
 Ethanol 14.5 vol%, pH 3.83, SO<sub>2</sub> 5,5 ppm

### Physiological data

<b>Inoculation temperature range</b>	17-25°C (62-77°F)
<b>pH minimum*</b>	3.2
<b>Total SO<sub>2</sub>, max. at inoculation*</b>	40 ppm
<b>Alcohol maximum *</b>	14 % vol

\* note that these inhibitory factors are antagonistic towards each other.  
 The individual tolerances are valid only if other conditions are favourable.  
 Check level of SO<sub>2</sub> produced by the yeast used for primary fermentation and be aware of level of free SO<sub>2</sub>.

### Legislation

The product is intended for food use as an oenological product and complies with the current International Oenological Codex. Chr. Hansen's cultures comply with the general requirements on food safety laid down in Regulation 178/2002/EC and with Council Regulation (EC) No 606/2009 of 10 July 2009, as amended.

### 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

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 ®.

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### Additional Information

Check the latest news on [www.chr-hansen.com/food-cultures-and-enzymes/wine](http://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® Oenos 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® Oenos 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](http://www.chr-hansen.com)

\* 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 with later amendments, 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 with later amendments.

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 amending Directive 2001/18/EC, and with later amendments.

### 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	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)	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 SO <sub>2</sub>	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](http://www.eur-lex.europa.eu)