

# Viniflora® Oenos

## Product Information

Version: 11 PI-EU-EN 10-22-2010

### 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. It 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.

### Packaging

Material No:	Size	Type
100316	5 X 2500 L	Pouch(es) in box

### Physical Properties

Color:	Off-white to slightly brown
Form:	Granulate

### Application

#### Usage

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 produces biogenic amines from amino acids. Viniflora strains have been selected by Chr. Hansen 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 Viniflora products can help to reduce this food safety concern, please visit the following site: [www.chr-hansen.com/wine](http://www.chr-hansen.com/wine).

### Storage and handling

< -18 °C / < 0 °F.

## Viniflora® Oenos

Product Information

Version: 11 PI-EU-EN 10-22-2010

### Shelf life

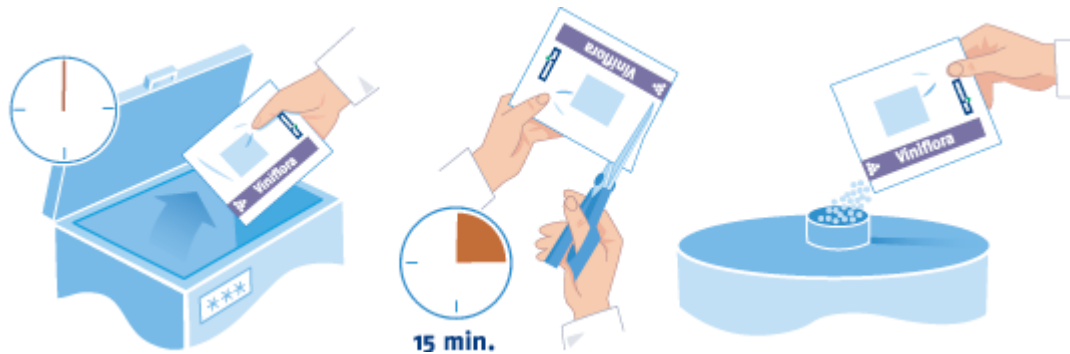
When stored according to recommendation the product has a shelf life of 36 months. At +5°C (41°F) the shelf life is at least 6 months.

### Directions for use

Viniflora® freeze-dried cultures are adapted for direct inoculation into wine. No rehydration or reactivation is required.

1. Remove the pouch from the freezer 15 min. before use and place 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. Make sure that the culture is completely dissolved in the wine.



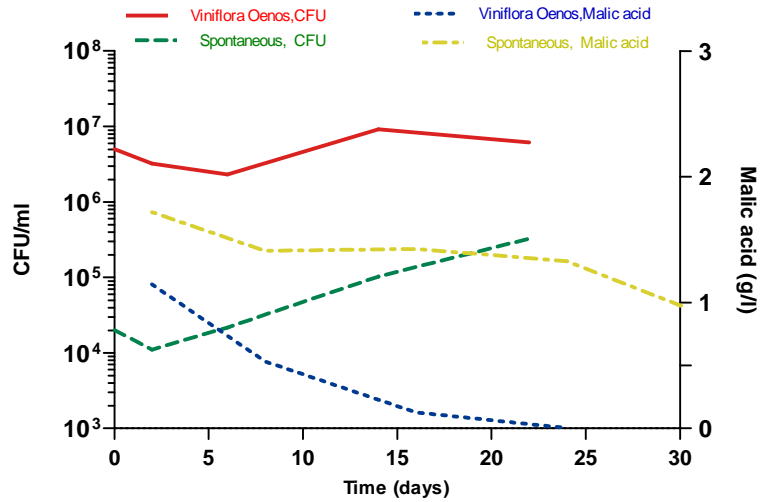
Viniflora® Oenos

Product Information

Version: 11 PI-EU-EN 10-22-2010

Technical Data

Performance



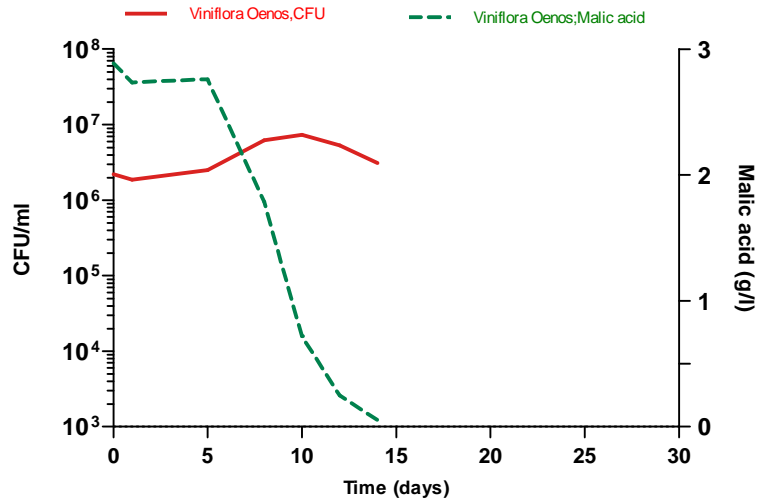
Shiraz Sonora valley winery  
 Ethanol 13.6 vol%, pH 3.3, SO<sub>2</sub> 18 ppm

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.

**Viniflora® Oenos**

Product Information

Version: 11 PI-EU-EN 10-22-2010



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

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

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

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.

The product is intended for food use.

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Version: 11 PI-EU-EN 10-22-2010

### Food Safety

Good Manufacturing Practise (GMP) is implemented in all plants manufacturing Chr. Hansen cultures. Chr. Hansen has made a risk assesment of microbiological, physical and chemical risks in our manufacturing and distribution plants for dairy, wine and meat cultures. Control points (CP´s) and Critical Control Points (CCP´s) are based on the risk assesment. A HACCP team as well as HACCP plans are established for each plant. 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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### Technical support

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

### Additional Information

Check the latest news on [www.chr-hansen.com/wine](http://www.chr-hansen.com/wine)