

Viniflora® LS CiNe

Product Information

Version: 1 PI-EU-EN 08-24-2009

Description Viniflora® LS CiNe 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 with limited production of acetic acid and diacetyl. It has an excellent allround tolerance to pH, alcohol, temperature and SO₂. The Viniflora® LS culture is ready for inoculation directly into wine without previous reactivation.

The culture can be used both in red, rosé/blush and white wines.

| | | | |
|------------------|--------------|-----------|---------------|
| Packaging | Material No: | Size | Type |
| | 699596 | 6X25000 L | Bag(s) in box |

| | | |
|----------------------------|--------|-----------------------------|
| Physical Properties | Color: | Off-white to slightly brown |
|----------------------------|--------|-----------------------------|

| | |
|-------|----------------|
| Form: | Frozen pellets |
|-------|----------------|

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, rosé/blush 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
- No degradation of citric acid into acetic acid, diacetyl and 2,3-butanediol
- Low production of volatile acidity
- Excellent all round tolerance towards pH, alcohol, temperature and SO₂
- Does not produce biogenic amines*

**Does not produce biogenic amines from histidine, methylamine, ethylamine, tyramine, phenylethylamine, diaminobretane (putrescine), diaminopentane (cadaverine), or isoamylamine. Has no arginine metabolism.*

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The logo for Chr. Hansen, featuring the text "CHR HANSEN" in white on a dark blue rectangular background. A small green diamond is positioned below the "H" in "HANSEN".

| | |
|----------------------|--|
| Storage and handling | <p>< -45 °C / < -49 °F.</p> <p>Handling The frozen cultures should be transported using dry ice, with a maximum transit time of 72 hours.</p> |
| Shelf life | <p>When stored according to recommendation the product has a shelf life of 12 months.</p> |
| Directions for use | <p>This frozen culture should always be inoculated directly into the wine. No rehydration or reactivation is required.</p> <p>Remove pouch/carton from the freezer immediately prior to use to ensure optimal performance. Open the pouch/carton and add the pellets directly into the wine. DO NOT THAW THESE CULTURES. Prolonged exposure to temperatures above -45°C before inoculation will damage the quality of the cultures. Make sure that the culture is completely dissolved in the wine.</p> <p>Do not take unnecessary risks with your wine by lowering dosage or doing cross-seeding: you only reduce cultures performance.</p> |

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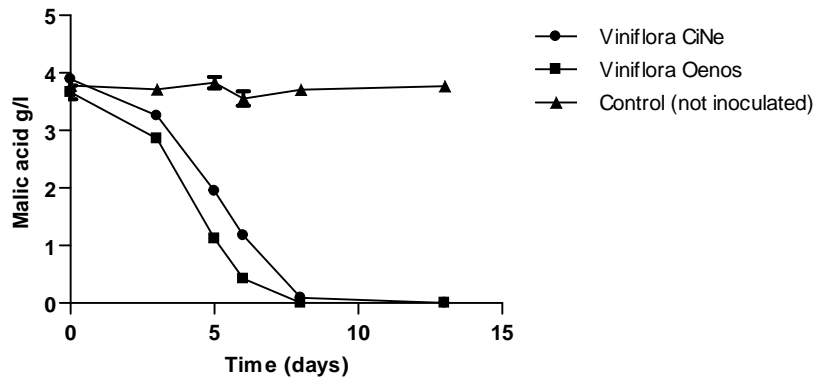
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Technical Data

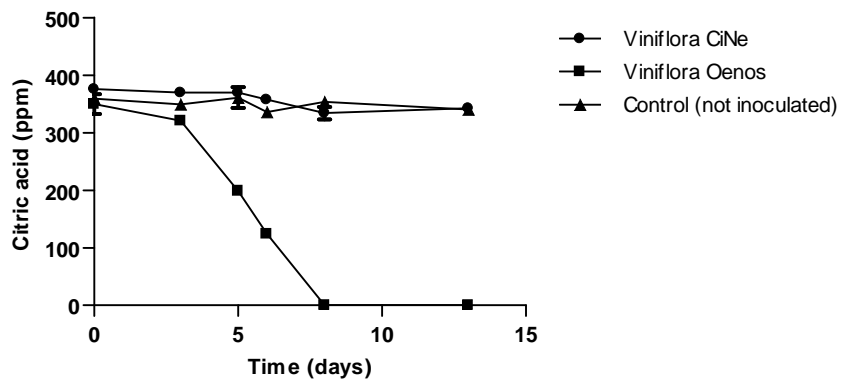
Performance



Viniflora CiNe compared to Viniflora Oenos: Conversion of malic acid.

Comparison of Viniflora CiNe and Viniflora Oenos during malolactic fermentation:

Viniflora CiNe does not degrade citric acid like other commercial (and spontaneous) bacteria for malolactic fermentation. Hence less production of acetic acid and diacetyl will be observed when using Viniflora CiNe.



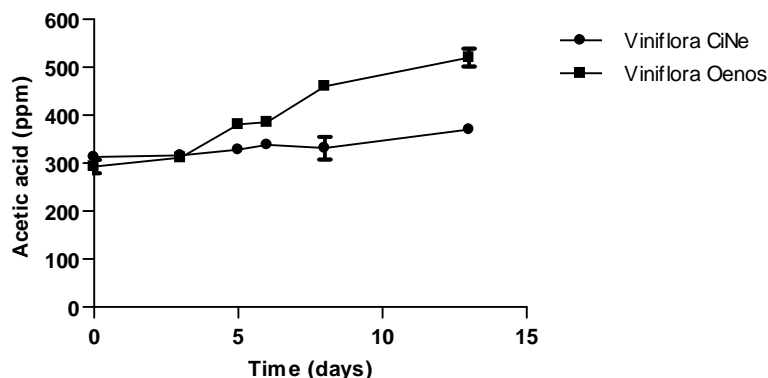
Viniflora CiNe compared to Viniflora Oenos: Conversion of citric acid.

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Viniflora CiNe compared to Viniflora Oenos: Formation of acetic acid.

Physiological data

| | |
|--|---------------------|
| Inoculation temperature | 17-25 °C / 62-77 °F |
| pH* | > 3.2 |
| Total SO ₂ * (at inoculation) | < 30 ppm |
| Alcohol* | < 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 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.

The product is intended for food use.

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.

Technical support

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

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Additional Information

Check the latest news on www.chr-hansen.com/wine