

Viniflora OCTAVE

Product Information

Version: 1 PI GLOB EN 07-21-2020

Description

Viniflora OCTAVE is a pure strain of *Lachancea thermotolerans* (formerly *Kluyveromyces thermotolerans*) selected for its capacity to increase the acidity in white and rosé wines and adding to the flavor complexity with stone fruits notes. As a consequence to the release of lactic acid, the final alcohol content in these wines can be reduced. OCTAVE can be used at several stages of the process as a pre-fermentation product (on harvested grapes, on crushed grapes, in the must). Specifically recommended for white and rosé grapes varieties from warm/hot climate regions. The product is delivered as Dry Active Yeast.

This specialty wine yeast product is not intended to achieve alcoholic fermentation but to improve wine complexity. To achieve alcoholic fermentation in your must/wine, you will have to inoculate with a product based on *Saccharomyces cerevisiae* strain(s) at a later stage.

Culture composition:
Lachancea thermotolerans.

| | | | |
|--------------|--------|--------|------------------------------|
| Material No: | 720822 | Color: | Light brown |
| Size | 500 g | Type | Vacuum packed alu-foil pouch |
| Form: | Powder | | |

Storage

0 - 8 °C / 32 - 46 °F

Shelf life

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

Dosage

It is recommended to use one 500g pouch in 25 hl (660 US gallons), 20g/hl.

Application

OCTAVE gives three simultaneous effects to added wines, increasing their complexity:

1. High flavor complexity & intensity
2. High level of lactic acid produced from sugars, adding freshness to the wine
3. Lower ethanol content

Grape musts inoculated with OCTAVE lead to wines with an increased freshness to the taste and a more complex flavor character compared to control wines fermented with only a strain of *Saccharomyces cerevisiae* - hence improving consumer preference. The fruit notes created have been described as stone fruits (peach, apricots) and pear.

Depending on the wine and the winemaking process, OCTAVE will be present during the first stage of alcoholic fermentation, until an ethanol concentration of about 11% v/v. After the yeast dies, the alcoholic fermentation can be completed by the more alcohol tolerant species of *Saccharomyces* spp. Therefore, OCTAVE inoculation has to be followed by a second inoculation of *Saccharomyces cerevisiae* yeast that will achieve a safe, smooth and fast alcoholic fermentation in wines.

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Directions for use

1. Rehydration: Add the yeast to unchlorinated tap water (chlorine kills microorganisms such as yeasts) in a ratio 1:10. Water temperature has to be monitored and kept between 20 and 25°C (68-77°F), as this culture is more sensitive to high temperature than *Saccharomyces cerevisiae*. Therefore, water temperature is a critical factor for a successful fermentation, as a water temperature higher than 25°C (77°F) may kill an important part of the yeast population.

Activation: Add un sulphured grape must to the yeast suspension (sulphures/sulfites kill microorganisms such as yeasts) in a ratio of 1:3. Leave the mixture for approx. 20 minutes.

Acclimatization: When small bubbles are visible on the surface of the yeast/must mixture, add it to the must tank and pump over to make sure that the yeast is well suspended. If the must has a low temperature (10-15°C/50-59°F) adjust the temperature of the yeast suspension slowly to approx. 20°C/68°F before adding to the must.

Technical Data

Fermentation characteristics

| Flavors | Acidic balance | Mouth-feel | Other |
|---|------------------------------------|--------------------------------------|-----------------------------------|
| Enhance fruit flavors (esters) | Lactic acid production from sugars | Medium production of polysaccharides | Low production of SO ₂ |
| Very low volatile phenols | Low acetic acid production | | Inhibits MLF |
| Very low H ₂ S | | | Late hydrolysis |
| Ideal for white/rosé wines from warm climates | | | |

Timing for inoculation

Depending the amount of time available for wine production and the desired effect, inoculation can be done following two protocols:

1. Simultaneous inoculation

Together with the *Saccharomyces cerevisiae* strain(s) of choice: this is recommended when time available at crush time is limited and/or the overall fermentation time needs to be kept the same. We recommend to re-hydrate the two yeasts separately and to carefully follow the instructions for re-hydration of both yeasts (especially water temperatures and the use of unchlorinated water). This will secure a mild 'wild effect' associated with a smooth start of the alcoholic fermentation.

2. Sequential inoculation

The yeast should be inoculated first, followed by the inoculation of the *Saccharomyces cerevisiae* strain(s) of choice. The yeast has to be inoculated first, and a lag phase has to be observed that will depend on must temperature. Chr. Hansen recommends to inoculate the standard *Saccharomyces* yeast after a drop of 15-20 points at least in density or 5 °Brix. This leads to the inoculation of the yeast:

- 24 to 72 hours before *Saccharomyces cerevisiae* inoculation when temperature is medium-low (white and rosé wine production).

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Physiological data

| Parameter | Value(s) | Comment |
|----------------------------|---------------------|--|
| Temperature* | | |
| Tolerance limits | 10-28° C (50-82° F) | |
| Optimum | 15-25° C (59-77° F) | |
| SO ₂ tolerance* | 30 ppm at crush | |
| Alcohol tolerance* | 10.0 - 11.0 % | |
| Nitrogen requirements | medium | Check YAN before inoculation; perform DAP addition when Sac is added |
| Sugar to alcohol yield | 17.0 g/ % vol | standard |
| Glycerol yield | 5 - 8 g/l | standard |

* 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

The product is intended for food use as an œnological 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.

The product is approved for use in organic wines (EU and NOP), a statement can be provided on demand.

Product content

Wine yeast products available on the market contain emulsifier used as a processing aid in production. Chr. Hansen wine yeasts products contain less than 1% sorbitane monostereate, a fatty acid from vegetable source. This emulsifier is broadly authorized in food products around the world and has a proven record of safety demonstrated by its E number (E491).

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 ®.

Additional Information

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

Technical support

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

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GMO Information

In accordance with the below mentioned legislation of the European Union we can inform that:

Viniflora OCTAVE is not a GM (genetically modified) food *.

It does not contain or consist of GMOs and is not produced from GMOs in accordance with Regulation 1829/2003* on GM food and feed.

As such GM labelling is not required for Viniflora OCTAVE or the food it is used to produce**. Moreover, the product does not contain any GM labelled raw materials.

* Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed.

** Regulation (EC) No 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC.

Please note the information presented here does not imply that the product can either be used in, or is externally certified to be used in, food or feed labelled as 'organic' or 'GMO free'. Requirements to make these claims vary per country, please contact us for more information.

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 ₂ | 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