



*Improving food & health*

## Viniflora® SYMPHONY

### Product Information

Version: 5 PI GLOB EN 12-27-2019

### Description

Viniflora® SYMPHONY is a unique blend of *Saccharomyces cerevisiae* and *Kluyveromyces thermotolerans*. This product ensures a safe and reliable alcoholic fermentation, while giving increased flavor impact in your wine. The above strains have been especially selected for their enhancement of aroma and flavor in wine. Grape must fermented with SYMPHONY produces wines that are distinguishable with a clear floral aroma and bright, tropical fruity notes in white wines. In red wines, complex and round flavors were noted. The strains have furthermore been selected for their good compatibility with malolactic bacteria cultures, ensuring a successful malolactic fermentation (MLF).

### Culture composition:

*Kluyveromyces thermotolerans*, *Saccharomyces cerevisiae*.

<b>Material No:</b>	673453	<b>Color:</b>	Off-white to slightly brown
<b>Size</b>	500 g	<b>Type</b>	Vacuum packed alu-foil pouch
<b>Form:</b>	Granulate		

### Storage

4 - 8 °C / 39 - 46 °F

### Shelf life

Dried yeast stored according to recommendation will have a shelf life of 24 months.

### Dosage

It is recommended to use 500 g pouch in 20 hl (530 US Gal), i.e. 25 g/hl.

### Application

This yeast blend is provided as a dried culture that should be rehydrated and activated before addition to the wine, as the standard procedure for active dry yeast.

The blend will conduct a secure alcoholic fermentation in red and white grape must. The yeast blend can tolerate an alcohol level of 16 % vol. and produces very low levels of SO<sub>2</sub> and volatile acids.

Enhanced flavor benefits observed in the following red wine varieties:

- Cabernet sauvignon
- Merlot
- Shiraz
- Pinot Noir

Enhanced flavor benefits observed in the following white wine varieties:

- Chardonnay
- Pinot blanc
- Pinot gris
- Riesling

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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.

2. 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.

3. 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 (thiols, esters)	Limited lactic acid production from sugars		Low production of SO <sub>2</sub>
Very low volatile phenols	Very low volatile acidity		Facilitate MLF
Very low H <sub>2</sub> S	Very low acetic acid		
Balanced 'wild ferment' effect			

**Physiological data**

Parameter	Value(s)	Comment
Temperature*		
Tolerance limits	10-32 °C (50-90 °F)	
Optimum	15-28 °C (59-82 °F)	
SO <sub>2</sub> tolerance*	30 ppm at crush	
Alcohol tolerance*	17.0%	
Nitrogen requirements	medium	Check YAN before inoculation
Sugar to alcohol yield	17.7 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 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.

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### **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/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.

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### GMO Information

In accordance with the legislation in the European Union\* Viniflora® SYMPHONY 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® SYMPHONY 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 1831/2003 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)