

Viniflora® RHYTHM

Product Information

Version: 2 PI GLOB EN 02-11-2016

Description

Viniflora® RHYTHM is a unique blend of *Saccharomyces cerevisiae* and *Kluyveromyces thermotolerans* ensuring a safe and reliable alcoholic fermentation in both red and white wines. The strains have been especially selected for their flavor impact in wine as well as their enhancement of complexity and mouthfeel in the wine. Furthermore, the strains are selected for their good compatibility with malolactic bacteria cultures, ensuring a successful malolactic fermentation (MLF).

Culture composition:

Kluyveromyces thermotolerans, *Saccharomyces cerevisiae*.

| | | | |
|--------------|-----------|--------|------------------------------|
| Material No: | 679923 | Color: | Off-white to slightly brown |
| Size | 500 g | Type | Vacuum packed alu-foil pouch |
| Form: | Granulate | | |

Storage

2 - 7 °C / 36 - 45 °F

Shelf life

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

Dosage

It is recommended to use one 500g pouch in 35-50 hl / 900-1300 US gallons under normal conditions and in 25-35 hl / 660-920 US gallons under harsh conditions.

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Application

RHYTHM™ 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.

RHYTHM™ will conduct a secure alcoholic fermentation in medium to high alcohol potential red grape must. The culture can tolerate an alcohol level of 17 % vol. RHYTHM™ produces very low levels of SO₂ and volatile acids.

Recommended for both red and wine grape varieties where a reliable alcoholic fermentation is desired, together with an improved complexity :

- Merlot
- Cabernet Sauvignon
- Shiraz
- Carignan
- Pinot Noir
- Grenache
- Tempranillo
- Zinfandel

- Petit Shiraz

- Chardonnay

- Riesling

- Sauvignon Blanc

- Pinot Gris

- Pinot Blanc

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 *Torulasporea delbrueckii* and *Kluyveromyces thermotolerans* are 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

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Fermentation characteristics

| Flavors | Acidic balance | Mouth-feel | Other |
|---|---|-----------------------|--|
| Enhance fruit flavors (thiols, esters) Very low volatile phenols Very low H ₂ S Ideal for red wines Strong 'wild ferment' effect | Lactic acid production from sugars Very low volatile acidity Very low acetic acid | Improve palate weight | Low production of SO ₂ Facilitate MLF Late hydrolysis |

Physiological data

| Parameter | Value(s) | Comment |
|----------------------------------|---------------------|------------------------------|
| Temperature* | | |
| <i>Tolerance limits</i> | 10-32° C (50-90° F) | |
| <i>Optimum</i> | 15-28° C (59-82° F) | |
| SO₂ 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 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.

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).

Chr. Hansen wine yeast products content is strictly identical to previous batches delivered before 2010. The only change is the voluntary labelling of the emulsifier used in production as a processing aid.

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 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/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® RHYTHM 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® RHYTHM 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/About us/Policies and positions/Quality and product safety.

* 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 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