



CHR HANSEN

Viniflora® CONCERTO™

Product Information

Description

This product is a pure strain of *Kluyveromyces thermotolerans* to be used in combination with your *Saccharomyces cerevisiae* strain (or strains) of choice.

Chr. Hansen's pure *Kluyveromyces thermotolerans* strain CH Kt 421 ensures a safe and reliable start of the alcoholic fermentation in both white, rosé or red wines. It gives a softer palate, rounder mouth-feel, increases wine aromas spectrum and longevity.

However, *Kluyveromyces thermotolerans* will not persist until the end of the alcoholic fermentation. Therefore, CONCERTO™ has to be inoculated with or before a *Saccharomyces cerevisiae* that will achieve a safe, smooth and fast alcoholic fermentation in wines.

This non-*Saccharomyces* strain has been especially selected for its enhancement of complexity and mouth-feel in wine. Grape musts inoculated with CONCERTO™ produce wines that have been noted to have a more complex character getting consumers preference, compared to fermentations with pure *Saccharomyces* yeast products.

Chr. Hansen recommends the use of MERIT -a pure *Saccharomyces cerevisiae* strain-with CONCERTO™. However, winemakers can safely use any type of *Saccharomyces cerevisiae* in combination with CONCERTO™.

SO₂ and H₂S production by CONCERTO™ are low, and compatibility with malolactic cultures is good. To achieve fast and safe malolactic fermentations, always use a strain of *Saccharomyces cerevisiae* producing low levels of SO₂.

Application

CONCERTO™ is provided as a dried culture that should be re-hydrated and activated before addition to the wine, as the standard procedure for active dry yeast (ADY).

Chr. Hansen recommends rehydrating CONCERTO™ in warm water at 20-25°C / 68-77°F separately from the re-hydration of the *Saccharomyces cerevisiae* chosen (see detailed directions for use below).

CONCERTO™ will be present during the first stage of the alcoholic fermentation in the wine, depending on the wine and application; it is present approximately until the ethanol concentration reaches 10% (V/V). Then the culture dies and the alcoholic fermentation can be completed only by more alcohol tolerant species such as *Saccharomyces cerevisiae*. During the fermentation, the selected strain of *Kluyveromyces thermotolerans* will produce distinct fruit flavors and organic acids such as lactic acid giving a rounder, softer mouth-feel to the wine.

CONCERTO PI EN May 11/1:5

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CONCERTO™ produces very low levels of:

- SO₂ and H₂S,
- ethanal (acetaldehyde),
- acetic acid.

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

- ① *A rounder, smoother mouth-feel described as an increased palate weight;*
- ② *Associated with a higher flavor complexity and intensity;*
- ③ *And a lower volatile acidity.*

Warning

CONCERTO™ is not intended to achieve the alcoholic fermentation.

Never use CONCERTO™ without a strain of *Saccharomyces cerevisiae*.

Grapes

Recommended for red wines grape varieties where an improved complexity is requested both on mouth feel and flavors longevity

- Shiraz
- Sangiovese
- Merlot
- Cabernet-Sauvignon
- Carignan
- Pinot Noir
- Grenache
- Tempranillo
- Zinfandel
- Mourvèdre
- Cinsaut
- Malbec

Instructions for use

1. Rehydration

Add the yeast to unchlorinated tap water or mineral water in a ratio of 1:10 at 20-25°C / 68-77°F. Let the yeast absorb water for at least 10 minutes and stir again to a homogenous suspension.

2. Activation

Add unsulfured grape must to the yeast suspension in a ratio of 1:3. Leave the mixture for approx. 20 minutes.

3. Acclimatisation

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 20-25°C / 68-77°F before adding to the must.

Timing for inoculation

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

Sequential inoculation (recommended)

CONCERTO™ is inoculated first, followed by the inoculation of *Saccharomyces cerevisiae*. This will ensure the impact of CONCERTO™ is fully utilised, commencing the alcoholic fermentation with a pure *Kluyveromyces thermotolerans* strain, while delivering its typical fruit flavours and mouth-feel effects.

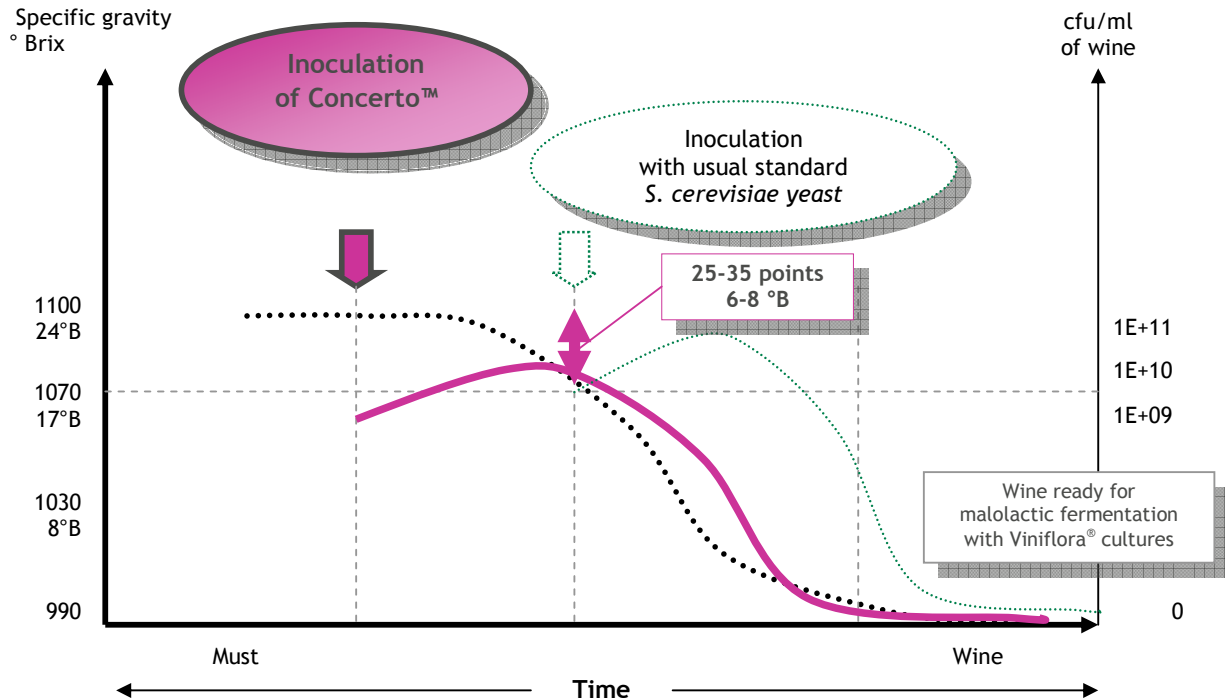
CONCERTO™ has to be inoculated first. A lag phase can be expected and its length will depend upon the must temperature. Chr. Hansen recommends inoculating the standard *Saccharomyces* yeast after a drop in density of at least 25-35 points, or 6-8 °Brix. In most cases this means inoculation of *Saccharomyces cerevisiae* several days after CONCERTO™.

The *Kluyveromyces thermotolerans* yeast will grow in the must during this period of time (if the recommended dosage has been observed and inoculation parameters have been followed correctly), providing two advantages: protection of the must/grape juice by colonization of the environment and absence of biogenic amines production during fermentation.

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Simultaneous inoculation

CONCERTO™ is inoculated together with *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 rehydrate the two yeasts separately and to carefully follow the instructions for rehydration of both yeasts (especially water temperatures and the use of unchlorinated water). This will secure a mild 'wild effect' related to CONCERTO™ associated with a smooth start of the alcoholic fermentation.

Dosage

It is recommended to use one 500 g 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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Technical data

Temperature range^{*)}: Tolerance limits Optimum temperature	10-28 °C (50-82 °F) 15-25 °C (59-77 °F)
SO₂ tolerance^{*)}	30 ppm total at crush
Alcohol maximum^{*)}	10.0 % V/V
Sugar/Alcohol yield	Non applicable here (ethanol production is not the purpose for using this product)
Glycerol yield	Standard (Approx. 5 - 8 g/l)
Storage and shelf life	Dried yeast stored at 5°C / 41 °F will have a shelf life of 24 months from the date of manufacture. Upon opening, the sachet should be used at once.
Appearance	Light brown granulate
Packaging	Vacuum packed aluminum foil sachets

**) Note: that a combination of several inhibitory factors will have a negative effect. The individual tolerances are valid only if other conditions are favorable.*

Packing

Packing size
1 × 500 g

Material number
705079

Technical service

Chr. Hansen's worldwide facilities and the personnel of our application and technology center are at your disposal with assistance and instructions.

VISIT US! And learn more about fermentation management with Viniflora[®]
www.chr-hansen.com/wine

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