



# SafEno™ BC S103



## THE OBVIOUS CHOICE FOR EXTREME CONDITIONS

### Ingredients:

Yeast (*Saccharomyces bayanus*<sup>\*</sup>), Emulsifier: Sorbitan monostearate

<sup>\*</sup> According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ BC S103 was selected for its excellent fermentation characteristics and its great resistance to extreme wine making conditions, including stuck fermentation restart.

### Enological characteristics:

#### • Fermentation abilities:

- Very fast fermentation kinetics
- Recommended maximum alcohol: up to 18% vol./vol.
- Recommended temperature range: 10-30 °C (50-86°F)
- Excellent fructose assimilation
- Very low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L): from 0.7

#### • Metabolic characteristics:

- Killer factor: Sensitive but excellent settlement strength
- High consumption of malic acid (up to >1g/L)
- Low volatile acidity production (generally below 0.2g/L H<sub>2</sub>SO<sub>4</sub>)
- Medium-low SO<sub>2</sub> production / Medium SO<sub>2</sub> combination
- High production of acetate esters (amylic notes) at low temperature with a good nutrition
- Promotion of terpenes and thiols

### Suggestions of use:

#### • Securing fermentations in difficult conditions:

SafEno™ BC S103 adapts to all kinds of musts such as those with a potential high degree, highly clarified ones or musts containing high SO<sub>2</sub> levels.

#### • To promote varietal typicality or enhance fermentative notes depending on use:

SafEno™ BC S103 can be aromatically neutral with a low nutrition but with a good one (YAN/S >1), it makes varietal characteristics more intense, especially regarding terpenic varieties (muscat,...) at moderate temperature (18-22°C) and plays a role in producing highly fermentative whites or rosés at low temperature (10-16°C).

It helps fermenting strong reds and whites (like Chardonnay) without any off notes.

#### • As a curative:

Thanks to its resistance to alcohol (18% v/v) and to SO<sub>2</sub>, SafEno™ BC S103 is particularly adapted to restart stuck fermentations. Refer to the related Fermentis® protocol.

#### • For prise de mousse:

With its technical characteristics, SafEno™ BC S103 can be used in secondary fermentation whether in bottle under the classic method or in tank (in this last case, it will be preferred to SafEno™ VR 44).





## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature**. Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

**Still White & Red wines:** 10 to 20 g/hl

**Barrel fermentation:** divide the inoculation rate by 2 to allow a regular fermentation without generating a too important temperature increase.

**Fermentation restart:** 30 to 40 g/hl

**Prise de mousse:** 15 to 40 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

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# SafEno™ CK S102



## THE IDEAL STRAIN FOR AROMATIC WHITE AND ROSÉ WINES

### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ CK S102 was selected in the Val de Loire region on Sauvignon Blanc, for its ability to **intensify aromatic profiles of white and rosé wines in difficult winemaking conditions.**

### Enological characteristics:

#### • Fermentation abilities:

- Short lag phase & **very fast fermentation kinetics**
- **Recommended maximum alcohol: 15% vol./vol.**
- Recommended temperature range: 10-30 °C (50-86°F), **lower temperature from 8°C (47°F) is affordable**
- **Complete fermentation even on highly clarified musts (<50 NTU)**
- **Strong nitrogen requirement only to optimize aromatic expression** and to avoid any risk of organoleptic deviations (sulfury notes): **Ratio YAN (mg/L) / Sugars (g/L): > 0.9.**

#### • Metabolic characteristics:

- Excellent settlement strength thanks to its **Killer phenotype**
- Total acidity conservation
- Medium-low production of volatile acidity
- Medium to high SO<sub>2</sub> production and combination, **SafEno™ CK S102 is not recommended for grapes that have been recently treated with copper-sulfate**
- **High fruity thiol (3-MH and 3-MHA) and medium volatile terpene release abilities**
- **High production of acetate esters (amylic notes) at low temperature** with a good nutrition

### Suggestions of use:

#### • Promotion of neutral varieties

Thanks to its high acetate ester production, **SafEno™ CK S102** is an ideal choice to value neutral grape varieties to obtain white and fruity rosés wines with a very high aromatic intensity. On **Ugni Blanc, Chardonnay, Sémillon, Vinho verde types...** **SafEno™ CK S102** enables the production of wine with **important fermentation flavors and great freshness.**

#### • Contributes to the organoleptic profile of aromatic cultivars

**SafEno™ CK S102** encourages the **expression of specific fruity thiols** and terpenes. It represents a good match for intense Sauvignon Blanc, Colombar, Riesling, Gewurztraminer then Grenache and Syrah rosés.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION

## Usage:



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### • Direct inoculation

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

### • With prior rehydration

Pour the yeast on the surface of **10 times their weight of tap water at room temperature**. Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

**Still wines:** 20 g/hl

**Fermentation restart:** 30 to 40 g/hl

**Prise de mousse:** 15 to 40 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg).

## Guarantee:

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# SafEno™ GV S107



ACTIVE  
DRY YEAST

## IDEALLY ADAPTED TO PREMIUM WHITES

### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ GV S107 has been isolated from 6 different Portuguese wine regions out of 1,500 strain isolates within a 3 years PhD for its abilities to enhance the qualities of noble grape varieties intended to make premium white wines.

### Enological characteristics:

#### • Fermentation abilities:

- **Rather slow kinetics.** This could be accelerated with good fermentation conditions as pH>3.5.
- Recommended maximum alcohol tolerance: 15% vol./vol.
- Recommended temperature range: 10-30 °C (50-86°F), **very resistant at low temperature**
- Medium nitrogen requirements: ratio YAN (mg/L) / Sugars (g/L): between 0.8 and 0.9.

#### • Metabolic characteristics:

- Killer factor: Neutral
- **High glycerol production (7-8g/L)**
- **Low volatile acidity production**
- **High SO<sub>2</sub> resistance**, Medium-low production of sulfur compounds (SO<sub>2</sub>, H<sub>2</sub>S) and low SO<sub>2</sub> combination
- **High production of higher alcohols (especially phenyl-2-ethanol) and esters (especially ethyl esters)**
- Medium release of glycosidically bound volatile aromas such as terpenes and C13-Norisoprenoids

### Suggestions of use:

#### • Premium elegant whites:

SafEno™ GV S107 is recommended for winemakers seeking for enhancing roundness and aromatic complexity to their whites, especially for elegant cultivars without major aroma precursors like Chardonnay.

Thanks to its analytic and aromatic cleanness, it is perfectly suitable for **high alcohol and high pH full bodied whites** issued from ripe fruits, **fermented in barrels and/or aged on lees and undergoing malolactic fermentation**. Its **sweet and long-lasting finish** will provide a real advantage for short ageing premium whites.

#### • Fresh fruit and floral whites:

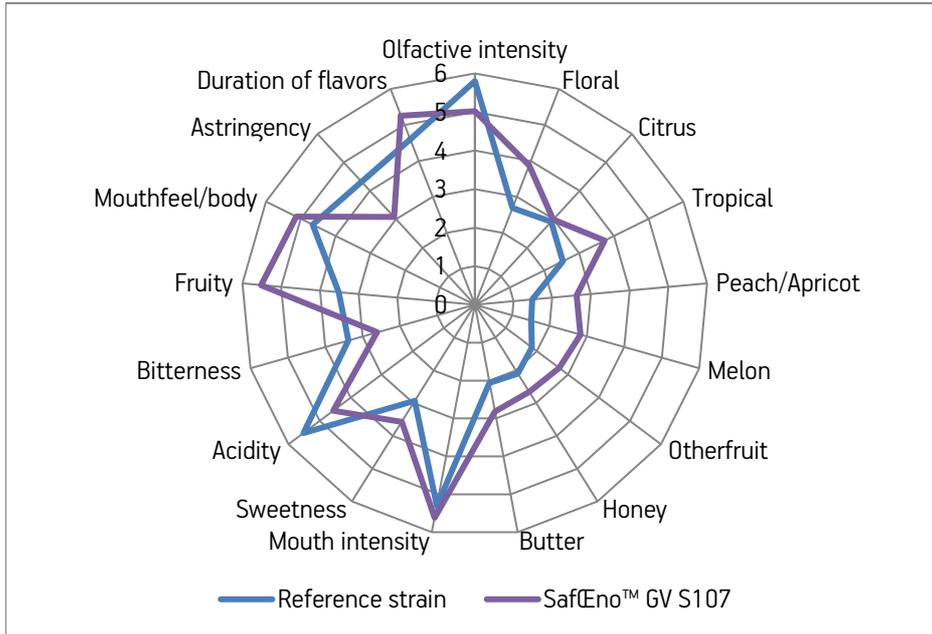
On fermentation side, SafEno™ GV S107 is characterized by its **promotion of floral and fruity higher alcohols and esters** (rather than isoamyl acetate). On variety side, it helps releasing floral and citrusy aromas (terpenes and C13-Norisoprenoids) from grapes. Thus, SafEno™ GV S107 **gently promotes aromatic varieties such as Viognier, Chenin Blanc, Riesling, Gewürztraminer...** while **always bringing a fresh and well-balanced persistent mouth.**



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Trial:



**SafEno™ GV S107** has especially been selected for its Premium Chardonnay ideally adapted organoleptic profile.

*Microvinification on US West Coast Chardonnay, 14.9% v/v, YAN/Sugar: 0.99, pH 3.2, fermented at 14-15°C (57-59°F) constant. Tasting done by 9 trained panelists.*

## Usage:



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### • Direct inoculation

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

### • With prior rehydration

Pour the yeast on the surface of **10 times their weight of tap water at room temperature**. Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

Still white wines: 20 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

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**THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION**



# SafOeno™ HD A54

ACTIVE  
DRY YEAST

## FOR INTENSELY FRUITY WHITE AND ROSÉS WINES

### Ingredients:

Yeast (Hybrid *Saccharomyces cerevisiae*\* x *Saccharomyces bayanus*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafOeno™ HD A54 has been created through a Lesaffre R&D yeast hybridization program. This work aimed to **overexpress fermentative floral and fruity higher alcohols and their corresponding acetate esters** while keeping a clean fermentation profile for light young wines.

### Enological characteristics:

#### • Fermentation abilities:

- Medium lag phase and medium to fast but **regular kinetics**
- Recommended maximum alcohol: up to 15% v/v
- **Recommended temperature range: 14-30°C (57-86°F)**
- **Medium nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L): ≥ 0.8**

#### • Metabolic characteristics:

- **Killer phenotype** but moderate settlement strength
- Low to medium malic acid consumption and **high total acidity maintenance**
- Moderate volatile acidity and **very low acetaldehyde production**
- Medium H<sub>2</sub>S production and **NO to very low SO<sub>2</sub> production / combination**
- **Very high production of 2-phenylethanol, isoamyl alcohol and their acetates especially at low temperature**
- High β-damascenone release

### Suggestions of use:

#### • For technological white and rose wines with strong amylic notes

Due to its extraordinary high production of isoamyl alcohol / isoamyl acetate and 2-phenylethanol / 2-phenylethyl acetate, SafOeno™ HD A54 is bringing to your wines **intense fruitiness towards banana, candy and strawberry notes, when they are fermented at low temperature (<18°C).**

Its capabilities to maintain **high total acidity** and to bring **roundness and sweetness** is interesting to keep a **very gourmet balance.**

#### • For blending bases

The moderate production of ethyl esters by this strain combined with a very high isoamyl acetate production, acting as a flavor enhancer, allows to systematically **strengthen the aromatic intensity** of the wine, particularly **on fermentative notes.** It makes this strain a really good tool **to value neutral bases or to bring complexity to aromatic bases.** This property leads as well to remove green aromas due to early picked grapes for delightful wines.

Considering its low SO<sub>2</sub> production, this strain is particularly suitable for **low SO<sub>2</sub> content wines** and favor malolactic fermentations.

SafOeno™ HD A54 will help winemakers adding **value** to their **young and non-varietal wines.**



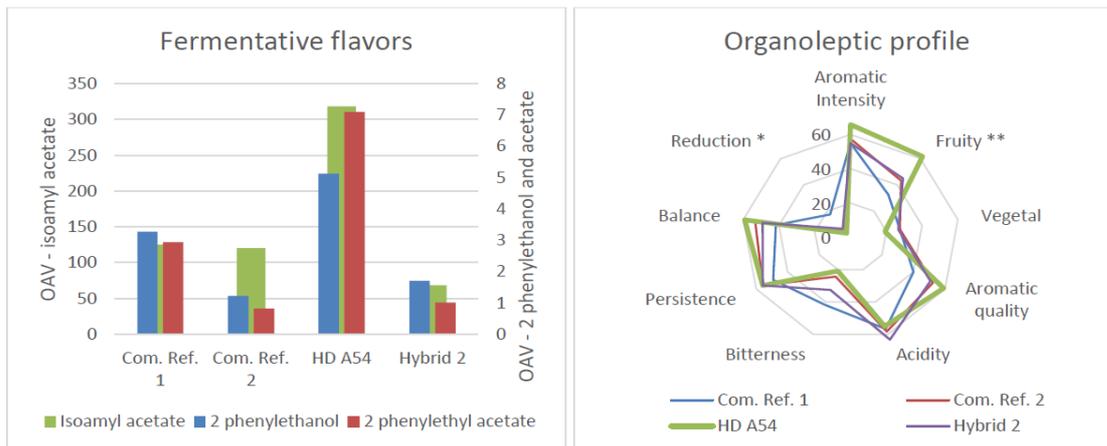
THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Trial:

Melon de Bourgogne, Loire valley, 12.2% v/v, Adjustment with DAP from YAN/S = 0.3 to 1 and adjustment of turbidity (60 NTU) with 30g/hl SpringCell™ at yeast inoculation, fermentation temperature constant 18°C (64 °F).

12 professional tasters. (\* significant at 5%, \*\* 1%) OAV: Odor Active Value (Concentration/Perception threshold).



## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

### • Direct inoculation

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

### • With prior rehydration

Pour the yeast on the surface of **10 times their weight of tap water at room temperature**. Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

**Still white and rosé wines: 20-40 g/hl** (higher dosage preferred to ensure best performances), **straight after settling**

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

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THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## SafEno™ HD S62



### FOR DEEPLY COLORED AND STRUCTURED REDS

#### Ingredients:

Yeast (Hybrid *Saccharomyces cerevisiae*\* x *Saccharomyces bayanus*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

#### Origin:

SafEno™ HD S62 is coming from the **hybridization of two Lesaffre strains** with the aim to combine their best characteristics towards the **favoring of high polyphenol extraction and stabilization in addition to difficult fermentation conditions resistance for long ageing Premium reds.**

#### Enological characteristics:

##### • Fermentation abilities:

- Fast fermentation kinetics
- Recommended maximum alcohol: >15% vol./vol.
- Recommended temperature range: 14-30°C (57-86°F)
- Good fructose assimilation
- Medium-low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L) = 0.7-0.8.

##### • Metabolic characteristics:

- Killer factor: Sensitive but good settlement strength at temperature >17°C (62°F)
- Medium-high malic acid consumption
- Very high polyphenol extraction favoring with very good
  - Color stabilization
  - Tannins reactivity
- No to low SO<sub>2</sub> production and medium-low combination
- Medium production of higher alcohols and esters, especially ethyl esters

#### Suggestions of use:

##### • Long ageing Premium reds:

By favoring high polyphenols (anthocyanins and tannins) extraction during alcoholic fermentation, SafEno™ HD S62 is particularly recommended for **deeply colored and structured wines**. The strain produced wines with **stable color (showing more violet pigments creation) and well polymerized as well as very reactive tannins for very long ageing potential**, especially in barrels.

Its ability to consume high content of malic acid and to produce no or low SO<sub>2</sub> might be crucial to **perform the malo-lactic fermentation without problems in non-favorable conditions** (high polyphenol contents).

##### • Varietal respect:

SafEno™ HD S62 is characterized by a medium production of higher alcohols and esters while **increasing the final aromatic intensity on fresh fruits (especially on young wines)**. This strain will so help to produce very **elegant but intense reds in respect with the cultivar** such as Premium Cabernet Sauvignon, Merlot, Tempranillo, Malbec, Sangiovese, Grenache...

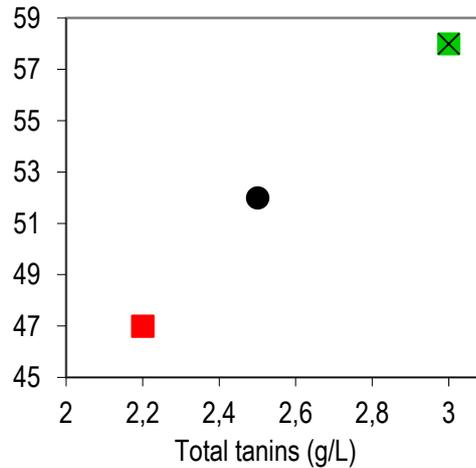
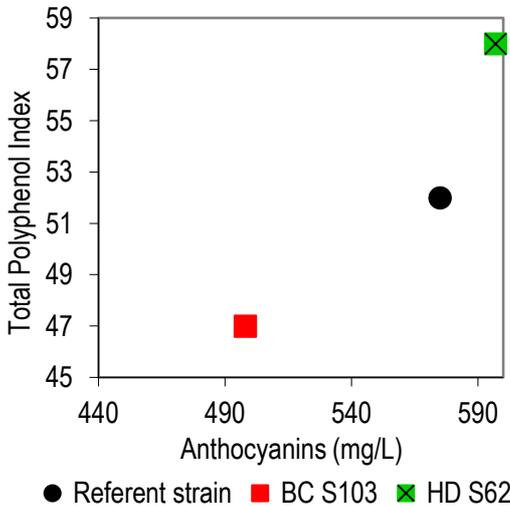


THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Trial:

Bordeaux Merlot, 15% v/v, 15 days post fermentative maceration



**SafEno™ HD S62** has especially been selected for its ability to strongly favor polyphenol extraction.

## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature.** Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

**Still Red wines:** 20 g/hl

**Fermentation restart:** 30 to 40 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

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**THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION**



# SafEno™ HD S135



## FOR FULL BODIED... AND SMOOTH REDS

### Ingredients:

Yeast (Hybrid *Saccharomyces cerevisiae*\* x *Saccharomyces bayanus*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ HD S135 is coming from the hybridization of two Lesaffre strains with the aim to combine their best characteristics towards polyphenols coating and resistance to difficult fermentation conditions for fruit driven middle ageing reds.

### Enological characteristics:

#### • Fermentation abilities:

- Quick alcoholic fermentation start and **fast kinetics**
- **Recommended maximum alcohol: >15% vol./vol.**
- Recommended temperature range: 14-30°C (57-86°F)
- Good fructose assimilation
- **Low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L) = 0.7-0.8.**

#### • Metabolic characteristics:

- Killer factor: Sensitive but good settlement strength
- Medium consumption of malic acid
- **Favors high polyphenol extraction with good**
  - **Color stabilization**
  - **Tannins quality and reactivity**
- Medium volatile acidity production
- **Low SO<sub>2</sub> production** – medium combination
- **High production of higher alcohols and esters**

### Suggestions of use:

#### • Round Premium reds:

SafEno™ HD S135 is recommended for **red wines whose power is associated with a smooth profile**. This strain favors indeed very well the extraction of wine polyphenols but has the ability to deliver a round and well-balanced structure. This feature can also be enhanced due to its non-negligible malic acid consumption.

#### • Aroma enhancer:

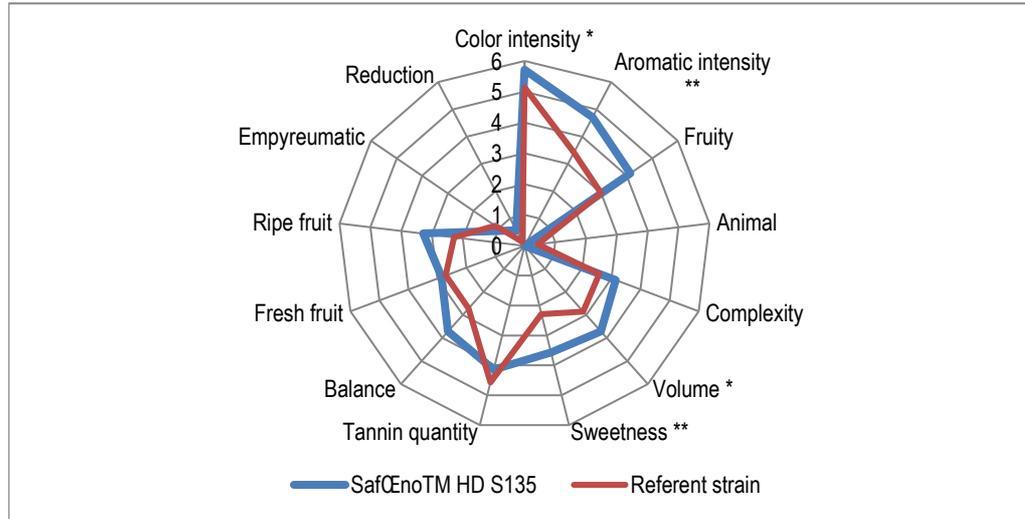
SafEno™ HD S135 promotes the production of fruit driven reds, rather oriented on ripe red/black fruits. It is particularly adapted to varieties such as Merlot, Syrah, Tempranillo, Sangiovese and Grenache.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION

## Trial:

Rhône valley - Syrah, 14.2% v/v, traditional winemaking



**SafEno™ HD S135** amplifies sensorial characteristics giving highly colored and smooth final wine with intense fruity notes.

7 yeasts tested

7 professional tasters

Significance threshold: \* < 5%,  
\*\* < 1%

## Usage:



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- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature**. Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

Still Red wines: 20 g/hl

Fermentation restart: 30 to 40 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

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**THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION**



# SafEno™ HD T18



## FOR ELEGANT AND FRESH TERPENIC WHITE WINES

### Ingredients:

Yeast (Hybrid *Saccharomyces cerevisiae*\* x *Saccharomyces bayanus*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ HD T18 has been created through a **Lesaffre R&D yeast hybridization program**. This work aimed to select a yeast strain particularly suitable for the **expression of varietal terpenic aromas** with a nice mouthfeel balance and clean fermentation profile.

### Enological characteristics:

#### • Fermentation abilities:

- Low to medium lag phase with **fast and regular kinetics**
- **Recommended maximum alcohol: up to 15% v/v**
- **Recommended temperature range: 10-30 °C (50-86°F)**
- **Low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L): ≥ 0.7**

#### • Metabolic characteristics:

- **Killer phenotype**, medium to high settlement strength
- Low malic acid consumption and high acidity maintenance
- **Low volatile acidity production**
- Low to medium H<sub>2</sub>S production and **low to medium SO<sub>2</sub> production / combination**
- **High balanced production of ethyl and acetate esters**
- **Favors high terpenol release and maintenance**

### Suggestions of use:

#### • For fresh and complex terpenic white wines

SafEno™ HD T18 increases the aromatic potential of **terpenic varieties** such as **Muscat, Viognier, Gewürztraminer, Riesling, Pinot Gris...** thanks to **terpenols and β-damascenone release** supported by a balanced production of acetate & ethyl esters, which **strengthens wines' complexity**. It particularly enhances **fresh floral and citrus fruit notes**.

Its **clean fermentation profile** towards undesirable metabolites combined to its aromatic properties gives to the winemaker a tool to elaborate **fresh varietal and complex white wines**.

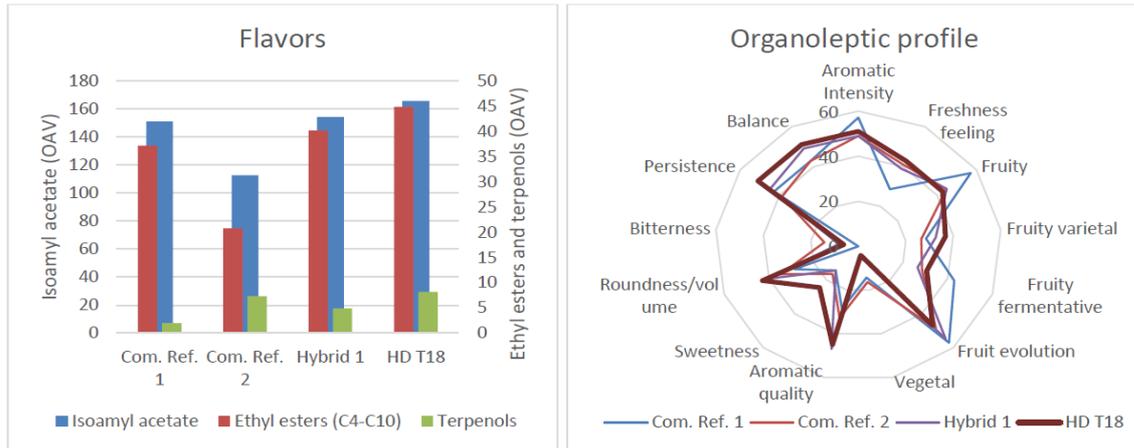




## Trial:

Viognier, Languedoc Roussillon, 12.6% v/v, Adjustment with DAP from YAN/S = 0.4 to 0.9 and adjustment of turbidity from 2 to 100 NTU plus 10g/hl SpringCell™ at yeast inoculation, fermentation temperature 17-19°C (63-66 °F).

7 professional tasters.OAV: Odor Active Value (Concentration/Perception threshold).



## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature.** Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

Still white wines: 20 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

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# SafEno™ NDA 21



## THE CHOICE FOR ELEGANT FRUITY STYLE RED WINES

### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:



SafEno™ NDA 21 was isolated from the original region of Nero d'Avola, in Sicily.

This strain is the result of a 4-year research by the Regional Institute of Wine & Vine in collaboration with prestigious Sicilian wineries.

### Enological characteristics:

#### • Fermentation abilities:

- Medium but regular fermentation kinetics
- **Recommended maximum alcohol: up to 15% vol./vol.**
- Recommended temperature range: 14-30 °C (57-86°F)
- **Medium nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L): ≥ 0.8**

#### • Metabolic characteristics:

- Killer factor: Sensitive but good settlement strength
- **High glycerol production: up to 8 g/L**
- Medium production of volatile acidity and **very low production of acetaldehyde**
- **No to low production of SO<sub>2</sub>** with a medium combination and low production of ethyl carbamate
- Complex & discrete bouquet thanks to a medium production of higher alcohols and esters
- **Very low adsorption of colored pigments**

### Suggestions of use:

#### • For harmonious, fruity and spicy red wines:

SafEno™ NDA 21 is recommended for the production of **harmonious, strong & fruity red wines with a short vatting time**. Indeed, with its high production of glycerol, SafEno™ NDA 21 brings a **good roundness** and an **excellent general balance** to the finished product. Additionally, the **low adsorption** of colored pigments by the cell walls allows the production of wines with **intense color**.

SafEno™ NDA 21 gives optimum results on **international varieties** such as **Merlot, Cabernet Sauvignon and Syrah**. It is also very much appreciated on Mediterranean varieties like **Mourvèdre, Carignan and Zinfandel**. Wines produced are characterized by intense and **persistent fruity & spicy notes**.

Given its origin, SafEno™ NDA 21 **intensifies the varietal characteristics of Nero d'Avola**.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature.** Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

Still wines: 20 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

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## SafEno™ PR 106



ACTIVE  
DRY YEAST

FOR PREMIUM CLOSED-TANK SPARKLING WINES, ESPECIALLY PROSECCO

### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\*According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ PR 106 has been selected from Lesaffre yeast collection for its high suitability to produce **premium white wine bases for closed-tank sparkling wines, especially Prosecco** through multiple vinifications on Glera grapes.

### Enological characteristics:

#### • Fermentation abilities:

- Short lag phase and fast kinetics
- Recommended maximum alcohol: >15% vol./vol.
- Recommended temperature range: 10-30°C (50-86°F)
- Good fructose assimilation
- Low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L) = 0.7-0.8.

#### • Metabolic characteristics:

- Killer factor: Sensitive but good settlement strength
- Medium malic acid consumption
- High SO<sub>2</sub> resistance and low SO<sub>2</sub> production – medium combination
- High production of higher alcohols and esters, especially ethyl esters
- Favoring a high release of terpenes

### Suggestions of use:

#### • Premium Prosecco base wines:

SafEno™ PR 106 exhibits a **clean, intensely fruity and floral aromatic profile** by producing a high amount of esters and limiting fermentation defects. Its orientation towards **fruity ethyl esters** brings **complexity** to the wine while its non-negligible generation of isoamyl acetate can **help reducing** some **vegetal notes** sometimes inherent to non-fully ripe base wines.

Whereas malic acid consumption and **sweetness supply** are usually not desired for these bases, SafEno™ PR 106 interestingly showed a **nice and fresh mouthfeel supported by a nice acidity and persistence in mouth** and was **locally judged very positively towards Prosecco base wines made of Glera grapes**.

#### • Floral and fruity whites, especially terpenic:

SafEno™ PR 106 particularly promotes the release of **terpenes** and is therefore **suitable for fresh and floral terpenic varieties like Muscat**. Its balance between amylic and fruity notes is also **well adapted to Chardonnay bases, rather grown in warm climates**.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature**. Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

Still white wines: 20 g/hl

Prise de mousse: 15 to 40 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

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# SafEno™ SC 22



## THE ORIGINAL STARTER YEAST

### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ SC 22 was one of the very first strain to be selected for a wine application for its respect of the varietal character of cultivars and for its regular & complete fermentation kinetic. It is an excellent fermenter.

### Enological characteristics:

#### • Fermentation abilities:

- Rapid fermentation start and regular fermentation kinetics
- Recommended maximum alcohol: 15% vol./vol.
- Recommended temperature range: 14-30°C (57-86°F)
- Low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L) = 0.7-0.8.

#### • Metabolic characteristics:

- Killer factor: Sensitive but good settlement strength
- Very low production of volatile acidity (often <0.15 g/L H<sub>2</sub>SO<sub>4</sub>)
- Low production of SO<sub>2</sub> / Medium SO<sub>2</sub> combination
- High production of higher alcohols and esters, even at high temperature

### Suggestions of use:

#### • Premium red wines

SafEno™ SC 22 is the strain of choice of the Bordeaux region estates and as such is particularly adapted to cultivars like **Cabernet Sauvignon, Cabernet Franc and Merlot**. It allows a rapid fermentation start and an **excellent fermentation regularity** producing fine, neat wines with terroir characteristics.

#### • Barrel fermentations

SafEno™ SC 22 is ideal for barrel fermentations. Even without controlling temperatures, the strain ferments regularly and fermentation temperature rarely goes above 30°C, thus making stuck fermentation risks very low.

#### • White & Rosé wines

SafEno™ SC 22 is a neutral strain allowing the production of wines with a great finesse while respecting the character of varieties. It is adapted to the fermentation of white cultivars at low temperature with a long ageing on lees (Chardonnay, Chenin, Viognier).



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature.** Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

Still wines: 20 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

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## SafEno™ SH 12



ACTIVE  
DRY YEAST

### FOR INTENSE AND HARMONIOUS THIOL REVEALING

#### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

#### Origin:

SafEno™ SH 12 has been isolated in the South-East of France (Gard vineyard) and comes from a **selection program carried out in partnership with IFV (Institut Français de la Vigne et du Vin) mainly oriented towards thiol aromatic compounds' revealing.**

#### Enological characteristics:

##### • Fermentation abilities:

- **Short lag phase**, regular fermentation kinetics
- Wide fermentation temperature spectrum: 10-30 °C (50-86°F). **Temperature > 18°C (64°F) at fermentation start is recommended for thiol release.**
- **Complete fermentation even on highly clarified musts (<50 NTU)**
- Recommended maximum alcohol: 14.5% vol./vol.
- Good fructose assimilation
- **Low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L) >0.7.** In case of strong nitrogen deficiency, an organic nutrient supply at yeast inoculation is recommended to facilitate thiol precursors' uptake.

##### • Metabolic characteristics:

- Excellent settlement strength thanks to its **Killer** phenotype
- Low malic acid consumption and **high total acidity maintenance**
- Medium-low production of volatile acidity
- **Low H<sub>2</sub>S production and medium-low SO<sub>2</sub> production**
- **High thiol release, particularly 4-Mercapto-4-MethylPentan-2-one/4MMP** (*IRC<sup>+</sup>* genotype, L: full length allele)
- Medium higher alcohols and acetate esters production, **Medium-high ethyl esters production**

#### Suggestions of use:

- For **fruity white and rosé wines, rich and complex in thiols**

Thanks to its specific enzymatic pool, SafEno™ SH 12 allows a **high thiol release, particularly of the 4MMP** (boxwood, blackcurrant bud) balanced by the 3-mercaptohexanol (grapefruit) and its limited conversion into 3-mercaptohexyl acetate (passion fruit). It **harmoniously reveals the aromatic potential of thiol type cultivars (Sauvignon Blanc, Colombard, Gros and Petit Manseng, Syrah, Grenache, etc...)** by bringing citrus and tropical fruit notes to wines. This aromatic balance is supported by a high ethyl esters production, which strengthen **complex fruity notes (particularly red fruits on rosés and white fruits on whites) which are not masked by amylic flavors.**

Its ability to maintain total acidity allows combining freshness and aromatic persistence, thus offering a **well-balance mouthfeel towards fresh fruits.**



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature**. Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

**Still white and rosé wines:** 20 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

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## SafEno™ STG S101



### FOR FRUITY RED AND ROSÉ WINES

#### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

#### Origin:

SafEno™ STG S101 was selected in the Beaujolais region for its **high esters and higher alcohols production whatever the fermentation temperature.**

#### Enological characteristics:

##### • Fermentation abilities:

- Rapid fermentation starts, **Regular-slow and constant fermentation kinetics, especially at low temperature**
- Recommended maximum alcohol: 13.5% vol./vol. Higher in particularly good fermentation conditions.
- Recommended temperature range: 17-30 °C (62-86°F)
- **Medium nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L): ≥ 0.8**

##### • Metabolic characteristics:

- Killer factor: Neutral and good settlement strength at temperature > 17°C (62°F)
- **Very low production of volatile acidity and acetaldehyde**
- **No to low production of SO<sub>2</sub> and medium combination**
- **Excellent autolysis capacity, helping malolactic fermentation**
- **Medium high higher alcohols and high esters (acetate and ethyl) production**

#### Suggestions of use:

##### • For young, light and fruity red wines

SafEno™ STG S101 develops **fruit (especially fermentative esters) & flower aromas** and keep them also at high temperature making it a strain of choice for **primeurs** processed from carbonic maceration or thermovinification. Wines have a fresh and light finish.

**For rosés and whites at low temperature, SafEno™ STG S101 will bring intense and complex fruitiness** whereas showing a rather slow fermentation.

Thanks to its origin **SafEno™ STG S101** is particularly convenient for **Pinot Noir & Gamay** as well as all other light red and rosé varieties intended to produce wines with a rapid turnover (Young Tempranillo, Sangiovese, Cinsault, Pinotage, Grenache).





## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature.** Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

**Still wines:** 20 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

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## SafEno™ UCLM S325



FOR AN OPTIMUM EXPRESSION OF VARIETAL CHARACTERISTICS AND SWEET WINES

### Ingredients:

Yeast (*Saccharomyces cerevisiae*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ UCLM S325 was selected by the Castilla La Mancha University for its ability to reinforce the structure of white wines while optimizing the expression of their character.

### Enological characteristics:

#### • Fermentation abilities:

- Rapid fermentation start and slow fermentation kinetics
- **Recommended maximum alcohol: Not above 13% vol./vol. without adequate nutrition**
- Recommended temperature range: 17-30 °C (62-86°F)
- **Strong nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L) ≥ 0.9**

#### • Metabolic characteristics:

- **Killer phenotype** and good settlement strength
- **High glycerol production: up to 10 g/L**
- **Low production of volatile acidity** and acetaldehyde
- **Medium-low production of SO<sub>2</sub>** and medium combination
- **β-glycosidase activity increasing the aromatic potential of terpenic varieties**

### Suggestions of use:

#### • For aromatic cultivars, especially terpenic

Its β-glycosidase activity enables the **release of terpenes and C13-norisoprenoids** citrusy and floral varietal aromas from varieties like **Malvasia, Muscat, Alvarinho, Loureiro, Riesling, Viognier, Gewürztraminer** and Pinot Gris. SafEno™ UCLM S325 also gives very good results on **other aromatic cultivars** such as Sauvignon Blanc and **rosés with intense red fruit notes (strawberry, raspberry)**, such as **Grenache** ones.

Above 13% vol./vol., SafEno™ UCLM S325 metabolism may be disturbed. It is thus **very well adapted for the production of sweet wines**. For wines above that degree, adequate nutrition and/or associating SafEno™ UCLM S325 with SafEno™ BC S103 may be beneficial to keep the aromatic potential of the variety while achieving a correct fermentation.

#### • To enhance roundness on light white wines

With its high glycerol production this strain brings roundness to light and low aromatic varieties (Airen, Trebbiano, Chardonnay).



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



## Usage:

- Gently pour the desired quantity of yeast in 10 times its weight of tap water at 30-35°C in a wide vessel. Pay attention to cover all the water surface area by creating a thin layer of yeast.
- Leave to rest for 20 minutes.
- Gently stir to complete yeast rehydration while avoiding the formation of lumps prior acclimatization.
- Double progressively the volume of the yeast suspension by adding must from the tank while stirring the mix so that the temperature of the yeast starter decreases and yeast activation starts.
- Leave to rest for 10 minutes.
- Homogenize and incorporate the yeast starter in the fermentation tank during a pumping over with aeration.

## Dosage:

**Still wines:** 20 g/hl to 40g/hl

**In case of musts with a high alcohol potential degree:** 20g/hl + 20g/hl of SafE<sup>no</sup>™ BC S103 at mid fermentation (with a preliminary acclimatization)

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

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## SafEno™ UCLM S377



### FOR LONG AGEING AND FRUITY RED WINES

#### Ingredients:

Yeast (*Saccharomyces cerevisiae*<sup>\*</sup>), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

#### Origin:

SafEno™ UCLM S377 was selected by the Castilla La Mancha University for its ability to produce very structured and smooth long ageing red wines.

#### Enological characteristics:

##### • Fermentation abilities:

- Rapid fermentation start and **rather slow fermentation kinetics**
- **Recommended maximum alcohol: up to 14.5 % vol./vol.** Higher with very good fermentation conditions.
- Recommended temperature range: 17-30 °C (62-86°F). **This strain is sensitive to brutal temperature changes, it requires regular fermentation conditions.**
- **Strong nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L) ≥ 0.9**

##### • Metabolic characteristics:

- Killer factor: Sensitive but good settlement strength
- **High glycerol production: up to 10 g/L**
- **High polyphenol extraction favoring with good tannic intensity**
- **Low production of volatile acidity** and acetaldehyde
- **Medium-low production of SO<sub>2</sub>** and medium combination
- Medium higher alcohols and esters production

#### Suggestions of use:

##### • For long maceration premium red wines

SafEno™ UCLM S377 gives excellent results for full-bodied but well-balanced wines. Its **rather slow fermentation kinetic** is very convenient for **wines incurring a fermentation maceration of over 10 days** allowing the wine maker to elaborate finely structured wines. Indeed, during the fermentation the **progressive alcohol production** is favorable to a **good polyphenolic extraction**.

Wines produced present an excellent **ageing capacity** (Tempranillo de Crianza, Cabernet Sauvignon, Syrah, Zinfandel) and have an **important volume** thanks to SafEno™ UCLM S377's high glycerol production.

##### • For Mediterranean style varieties

SafEno™ UCLM S377 was selected for its respect of the terroir & varietal character. It allows increasing varietal characteristics of **Syrah, Mourvèdre, Tempranillo and Grenache**, and other sun-kissed varieties.





ACTIVE  
DRY YEAST

## Usage:

- Gently pour the desired quantity of yeast in 10 times its weight of tap water at 30-35°C in a wide vessel. Pay attention to cover all the water surface area by creating a thin layer of yeast.
- Leave to rest for 20 minutes.
- Gently stir to complete yeast rehydration while avoiding the formation of lumps prior acclimatization.
- Double progressively the volume of the yeast suspension by adding must from the tank while stirring the mix so that the temperature of the yeast starter decreases and yeast activation starts.
- Leave to rest for 10 minutes.
- Homogenize and incorporate the yeast starter in the fermentation tank during a pumping over with aeration.

## Dosage:

Still wines: 20 g/hl to 30g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

**Each Fermentis® yeast is developed under a specific production scheme and benefits from the know-how of the Lesaffre group, world leader in yeast manufacturing. This guarantees the highest microbiological purity and maximum fermentation activity.**





# SafEno™ VR 44



ACTIVE  
DRY YEAST

## FOR SAFE FERMENTATIONS AND PRISE DE MOUSSE

### Ingredients:

Yeast (*Saccharomyces bayanus*\*), Emulsifier: Sorbitan monostearate

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

### Origin:

SafEno™ VR 44 was selected for its **excellent fermentation characteristics and its suitability for sparkling wine making conditions** (Fermentis® selection).

### Enological characteristics:

#### • Fermentation abilities:

- **Fast fermentation start and fast fermentation kinetics**
- **Recommended maximum alcohol: up to 16% vol./vol.**
- Recommended temperature range: 10-30 °C (50-86°F)
- **Very good fructose assimilation**
- **Very low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L): from 0.7**

#### • Metabolic characteristics:

- **Killer phenotype, very good settlement strength**
- **Very high acidity maintenance**
- Medium production of volatile acidity
- **Very low production of H<sub>2</sub>S**, medium production of SO<sub>2</sub> and medium-high combination
- Medium high production of higher alcohols and acetate esters, **very high production of ethyl esters**

### Suggestions of use:

#### • Base wines and Prise de mousse

SafEno™ VR 44 expresses all features that are **suitable for high quality base wines intended to produce sparkling wines through the classic method, i.e. crispness, freshness and frankness**. It is also particularly adapted to **secondary fermentation** (in bottle under the **classic method particularly** or in tank).

#### • White wines

Ideal for fermentations under controlled temperatures (on Chardonnay, Sémillon, Trebbiano, Malvasia, Pinot Grigio...).

#### • Red Wines

Given its fermentations characteristics, **SafEno™ VR 44** allows the production of **prestigious red wines fine, neat and with terroir characters** (Cabernet Sauvignon, Merlot, Carmenère, Barbera, Sangiovese, Teroldego...).

**SafEno™ VR 44** is convenient for all types of applications even in difficult wine making conditions.



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



ACTIVE  
DRY YEAST

## Usage:



Lesaffre know-how and continuous yeast production process improvement generates an **exceptional quality of dry yeasts able to resist to a very wide range of uses, incl. cold or no rehydration conditions, without affecting their viability, kinetic and/or analytical profile.** Winemakers can choose usage conditions that fit the best their needs, i.e.:

- **Direct inoculation**

Pour the yeast on the surface of **at least 10 times their weight of must** (possibly directly on the top of the tank or during tank filling after settling for whites and rosés). Gently stir to avoid or break clumps. **Immediately transfer into the tank via a pumping over with aeration** (or homogenize tank volume).

- **With prior rehydration**

Pour the yeast on the surface of **10 times their weight of tap water at room temperature.** Gently stir to avoid or break clumps. **Wait for 20 minutes and transfer into the tank via a pumping over with aeration.**

## Dosage:

**Still white & red wines:** 20 to 30 g/hl

**Fermentation restart** (*specific preparation protocol upon request*): 30 to 40 g/hl

**Prise de mousse** (*specific preparation protocol upon request*): 15 to 40 g/hl

## Packaging:

Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

Carton of 1 vacuum-packed box of 10 Kg (Full box net weight: 10 kg)

## Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 20°C (during 3 years) and 10°C for an extended storage (4 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

**Each Fermentis® yeast is developed under a specific production scheme and benefits from the know-how of the Lesaffre group, world leader in yeast manufacturing. This guarantees the highest microbiological purity and maximum fermentation activity.**





ACTIVE  
DRY YEAST

# SafEno™ VR 44

## THE POWER OF VR 44 UNDER ORGANIC CERTIFICATION



This active dry yeast is the strain **SafEno™ VR 44** certified organic by ECOCERT FR-BIO-01 according to European regulations.

In compliance with the Council Regulation (EC) No 834/2007 on organic production and labelling of organic products and to its implementation through the Commission Regulation (EC) No 889/2008 (and their amendments), the use of this yeast is complying with organic wine production rules defined by the Commission Implementing Regulation (EU) No 203/2012 (and its amendments).

Based on mutual recognition with EU regulation, **SafEno™ VR 44** may be recognized as organic in the US as it meets NOP requirements per USDA guidelines.

## Ingredients:

Yeast (*Saccharomyces bayanus*<sup>\*)</sup>

\* According to « The Yeasts, A Taxonomic Study » 5th edition, C.P. Kurtzman, J.W. Fell and T. Boekhout, 2011

## Origin:

**SafEno™ VR 44** was selected for its **excellent fermentation characteristics and its suitability for sparkling wine making conditions** (Fermentis® selection).

## Enological characteristics:

### • Fermentation abilities:

- **Medium-fast fermentation start and medium-fast fermentation kinetics**
- **Recommended maximum alcohol: up to 16% vol./vol.**
- Recommended temperature range: 10-30 °C (50-86°F)
- **Very good fructose assimilation**
- **Very low nitrogen requirements: Ratio YAN (mg/L) / Sugars (g/L): from 0.7**

### • Metabolic characteristics:

- **Killer phenotype, very good settlement strength**
- **Very high acidity maintenance**
- Medium production of volatile acidity
- **Very low production of H<sub>2</sub>S**, medium production of SO<sub>2</sub> and medium-high combination
- Medium high production of higher alcohols and acetate esters, **very high production of ethyl esters**

## Suggestions of use:

### • Organic base wines and Prise de mousse

**SafEno™ VR 44** expresses all features that are **suitable for high quality organic base wines intended to produce organic sparkling wines through the classic method, i.e. crispness, freshness and frankness**. It is also particularly **adapted to secondary fermentation** (in bottle under the **classic method particularly** or in tank).

### • Organic white wines

Ideal for fermentations under controlled temperatures (on Chardonnay, Sémillon, Trebbiano, Malvasia, Pinot Grigio...).



THE OBVIOUS CHOICE FOR BEVERAGE FERMENTATION



#### • Organic red Wines

Given its fermentations characteristics, **SafEno™ VR 44** allows the production of **prestigious organic red wines fine, neat and with terroir characters** (Cabernet Sauvignon, Merlot, Carmenère, Barbera, Sangiovese, Teroldego...).

**SafEno™ VR 44** is convenient for all types of applications even in difficult wine making conditions. Resistant, robust and with low needs in nitrogen, this strain allows to decrease the use of inputs. It is the reason why it is particularly adapted to the production of organic wines.

### Usage:

- Gently pour the desired quantity of yeast in 10 times its weight of tap water at 30-35°C in a wide vessel. Pay attention to cover all the water surface area by creating a thin layer of yeast.
- Leave to rest for 20 minutes.
- Gently stir to complete yeast rehydration while avoiding the formation of lumps prior acclimatization.
- Double progressively the volume of the yeast suspension by adding must from the tank while stirring the mix so that the temperature of the yeast starter decreases and yeast activation starts.
- Leave to rest for 10 minutes.
- Homogenize and incorporate the yeast starter in the fermentation tank during a pumping over with aeration.

### Dosage:

**Still white & red wines:** 20 to 40 g/hl, higher dosage will ensure a better fermentation start and a faster fermentation

**Fermentation restart** (*specific preparation protocol upon request*): 40 g/hl

**Prise de mousse** (*specific preparation protocol upon request*): 15 to 40 g/hl

**Packaging:** Carton of 20 vacuum-packed sachets of 500g each (Full box net weight: 10 kg)

### Guarantee:

The high rate of dry matter of our yeasts assures an optimum storage in its original packaging at a temperature not higher than 10°C (during 2 years).

Fermentis® guarantees the product complies with the International Oenological Codex until its Best Before End Date in the storage conditions mentioned above. All our products are also fully authorized per TTB 27 CFR 24.246 prior to and during fermentation.

**This Fermentis® yeast is developed under a specific organic production scheme and benefits from the know-how of the Lesaffre group, world leader in yeast manufacturing. This guarantees the highest microbiological purity and maximum fermentation activity.**

