

Pure Fermentation

LALVIN BM 4x4

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(*Saccharomyces cerevisiae*)

LALVIN BM 4x4 is a special dry active yeast produced based on the Lallemand concept of "Synergie Dynamique". It combines the special sensory benefits of the LALVIN BM 45 yeast with the safety of a yeast offering stable fermentation. The special advantages are good color preservation and reliable start of fermentation with controlled main fermentation and enhanced final attenuation. The LALVIN BM 4x4 dry active yeast is particularly suitable for spicy and complex Chianti-style red wines.

The specific qualities of LALVIN BM 4x4:

- ▶ Wide temperature range (18 – 28 °C)
- ▶ Polysaccharide release
- ▶ Quickly displaces wild yeasts and bacteria
- ▶ Moderate start of fermentation, therefore extended maceration possible
- ▶ Low formation of undesirable fermentation by-products
- ▶ Promotes the malolactic fermentation

Application

As a basic rule, grape mash/musts should be inoculated with LALVIN BM 4x4 as early as possible. Longer maceration times promote uncontrolled propagation of wild yeast and undesired bacteria. The following dosages will reliably prevent fermentation problems:

Intended application	Application quantity in g/hl for	
	normal fermentation	difficult conditions
Red mash	25 – 35	35 – 40
Red must	25 – 35	35 – 40

The dosages stated are reference values. They should be adapted to the individual requirements depending on the health of the grapes, the temperature, and the container size etc. Ensure that large containers are adequately chilled.

The best method is to stir LALVIN BM 4x4 into ten times the amount of a must-water mixture (35 – 38 °C). Stir the mixture again after approximately 20 minutes and added it to the mash or must.

The optimum fermentation temperature is between 16 and 28 °C, the minimum starting temperature is 18 °C. If the grape mash/must was heated, it must be recooled or cooled to approx. 25 °C before LALVIN BM 4x4 is added.

Addition of 600 mg SIHA Vitamin B1 (2 tablets) per 1000 liter of wine leads to even more favorable propagation, fermentation, and metabolism conditions. For final fermentation of 'stuck' wines, we recommend adding an additional dose of 15 g/hl of SIHA PROFERM® Plus at the abating fermentation stage.

Under these conditions, it is beneficial to accustom the yeast to the fermentation conditions. This is best achieved by adding the quantity of yeast required for the total quantity of wine to approximately 10 % of the total product to be fermented and fermenting until approximately half the sugar present is used up. This mixture is then added to the remaining 90 % of the wine for final fermentation. Yeasts adapted this way, usually start fermenting more quickly and have a lower tendency to die off than if they are added directly to the total quantity.

Product Characteristics

The LALVIN BM 4x4 yeast was developed during several years of selection work. The yeast is highly suitable for producing spicy and full red wine without vegetative nuances. The excellent organoleptic properties of LALVIN BM 4x4 were combined with the robust fermentation profile of an additional yeast. It also forms polysaccharides, leading to improved 'mouthfeel' without dominant astringency.

LALVIN BM 4x4 has an advantageous fermentation curve with a high final degree of fermentation. Wild yeast and undesired bacteria are suppressed. LALVIN BM 4x4 does not generate undesired fermentation by-products such as SO₂, H₂S, acetaldehyde, pyruvic acid (pyruvate), alpha-ketoglutaric acid, volatile acid, or ester.

LALVIN BM 4x4 is capable of producing up to 16 % alcohol by volume. The practical alcohol yield is approximately 47 % of the sugar to be fermented. For each kg of sugar fermented, approx. 546 kJ (130 kcal) of heat is released.

Safety

No safety specifications are required for LALVIN BM 4x4 since this product is used directly for food production. Storing, handling, and shipping this product do not create health or environmental hazards.

Additional information: generally not harmful to water according to the German Wows regulations of 1999 [Administrative Regulation on the Classification of Substances Hazardous to Waters into Water Hazard Classes].

Storage

LALVIN BM 4x4 is packed airtight in laminated aluminum foil in an inert gas atmosphere. The integrity of the vacuum pack is easy to check.

LALVIN BM 4x4 can be stored at 4 – 10 °C for a period of three years as long as the packaging remains intact. Short-term storage at 20°C is acceptable. Once a package has been opened, it should be used up as soon as possible.

Delivery Information

The article no. for LALVIN BM 4x4 is 93.354. It is available in the following packaging units:

500 g laminated aluminum foil block pack
20 x 500 g laminated aluminum foil block packs in
 cartons

HS customs tariff no: 2102 10 90

Certified Quality

LALVIN BM 4x4 is inspected regularly during the production process to ensure uniformly high product quality.

These inspections include technical function criteria as well as safeness in accordance with relevant laws governing production of foods. Strict controls are carried out immediately prior to and during final packaging.

LALVIN BM 4x4 meets the purity criteria of the International Codex for Wine Processing Agents and complies with the German Wine Law.



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