

uvaferm® 43™ RESTART



ORIGIN AND APPLICATION

Optimised and pre-acclimated Uvaferm 43 yeast resulting in a very robust culture, now called Uvaferm 43™ RESTART. The most fructophilic yeast in the Lallemand portfolio.

Under oenological conditions, glucose and fructose are the main fermentable sugars used by *Saccharomyces cerevisiae*. Although both of these hexoses are generally present in musts in equivalent quantities, *Saccharomyces cerevisiae* prefers to consume glucose, which explains why the main residual sugar in stuck ferments is fructose. In a Lallemand research project, the results showed that in oenological conditions where nitrogen, sugar and glucose/fructose ratios were varied, the yeast strain Uvaferm 43® proved to be the most efficient at metabolising fructose under conditions similar to those found in stuck ferments.

Uvaferm 43® is now available in a more robust form called **Uvaferm 43™ Restart**. This new yeast adapts more quickly after inoculation as it has been optimised and pre-acclimatised to perform well under the challenging conditions of stuck fermentation. It is highly fructophilic.



MICROBIAL AND OENOLOGICAL PROPERTIES

- *Saccharomyces cerevisiae* var. *bayanus*
- Competitive factor: active
- Excellent for restarting stuck ferments with high fructose/glucose ratio
- Very fructophilic yeast
- Relatively low nitrogen demand, low H₂S and low SO₂ production
- High tolerance to alcohol: up to 16% * *Subject to conditions.*
- High fermentation vigor
- Neutral sensory effect on the finished wine

RESTARTING A STUCK ALCOHOLIC FERMENTATION

Before restarting with fresh yeast culture the removal of spent yeast requires special comment. Where problem ferments have been going for some time it is best to remove the yeast which may contain or remain to be a source of inhibitory compounds to the fresh active culture. The addition of **ResKue™** (100% yeast walls) prior to yeast removal will help remove short and medium chain fatty acids and fungicides that are toxic to yeast cells.

Note on use of yeast nutrient in restart procedure

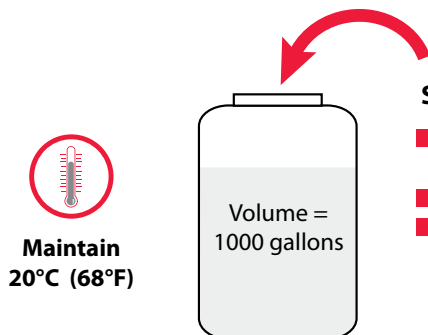
The conditions prevailing in wine where the primary ferment has been arrested short of dryness provides winemakers with various challenges including:

1. Minimising the risk of excess nutrient following a successful restart and completion of fermentation
2. Limiting the toxic effect of ethanol on the permeability of cell plasma membranes which affects the uptake of glucose/fructose and amino acids.
 - *The use of Fermaid O™ in the first fermentation phase of the restart procedure is a key prerequisite to limiting the impact of ethanol toxicity on the yeast cell membrane.*

The yeast is able to take up the α-amino nitrogen (provided by **Fermaid O™**) in an environment where the cell membrane permeability and intracellular pH control ATPase functions are not compromised by the alcohol present. As a result, the intracellular reserve of alpha-amino nitrogen is increased and in readiness for an acceleration of metabolic activity when the yeast inoculum is introduced into the problem wine

RESTARTING STUCK ALCOHOLIC FERMENTATION NEW PROTOCOL

Restart a stuck alcoholic fermentation using **RESKUE™** and **UVAFERM 43 RESTART™**:
 volume of stuck fermentation = 1000 gallons



Stuck juice/wine preparation:

- Add 10 – 20 ppm SO₂ to help with potential spoilage organism control
- Make a **RESKUE™** addition of **1.5 kg** (3.3 lbs)
- Mix and allow to settle 48 hours then rack off settled lees.



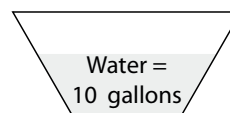
Increase Temperature (T°) of the treated juice/wine to 20-25°C (68-77°F) after racking.



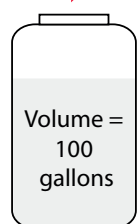
Water: 43°C (109°F) with **GOFERM PROTECT evolution™** then after a drop to 37-40°C (99-104°F) add **UVAFERM 43 RESTART™**

- Use **2 kg** (4.4 lbs) **GOFERM PROTECT evolution™**
- Use **1.5 kg** (3.3 lbs) **UVAFERM 43 RESTART™**

Gently stir to break up any initial clumps then repeat gentle stir after 20 minutes.




Pied-de-cuve
20-25°C
(~68-77°F)



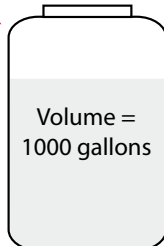
Add the rehydrated yeast to make a Pied-de-cuve:

- **40 gallons** water
- **40 lbs** sugar (adjust to 5 Brix)
- **50 gallons** post **RESKUE™** treated juice/wine
- **FERMAID O™**: 0.3 kg (2/3 lb)

Once sugar drops to 1000 density (0 Brix) transfer immediately



Maintain
20-25°C
(~68-77°F)



Mix the Pied-de-cuve **100 gallons** into **900 gallons** of the post **RESKUE™** treated juice/wine
 Add **1.5 kg** (3.3 lbs) of **FERMAID O™**

PACKAGING AND STORAGE

All Active Dried Yeast should be stored dry, best practice between 4-12°C (39-54°F) and the vacuum packaging should remain intact.

The information herein is true and accurate to the best of our knowledge; however, this data sheet is not to be considered as a guarantee, expressed or implied, or as a condition of sale of this product.