

Wine bacteria *Oenococcus oeni* selected by the Institut Français de la Vigne et du Vin (IFV) of Beaune.

Especially for co-inoculation, ensuring a fast and secure malolactic fermentation of red wines.

The 1-STEP™ starter Kit is a highly efficient Starter culture to promote Malolactic Fermentation (MLF) in a wide range of oenological conditions. The 1-STEP™ starter Kit consists of an *Oenococcus oeni* bacteria and a specific activator. The excellent activity and high vitality of the 1-STEP™ starter culture is achieved during a short acclimatization step that activates their metabolism to



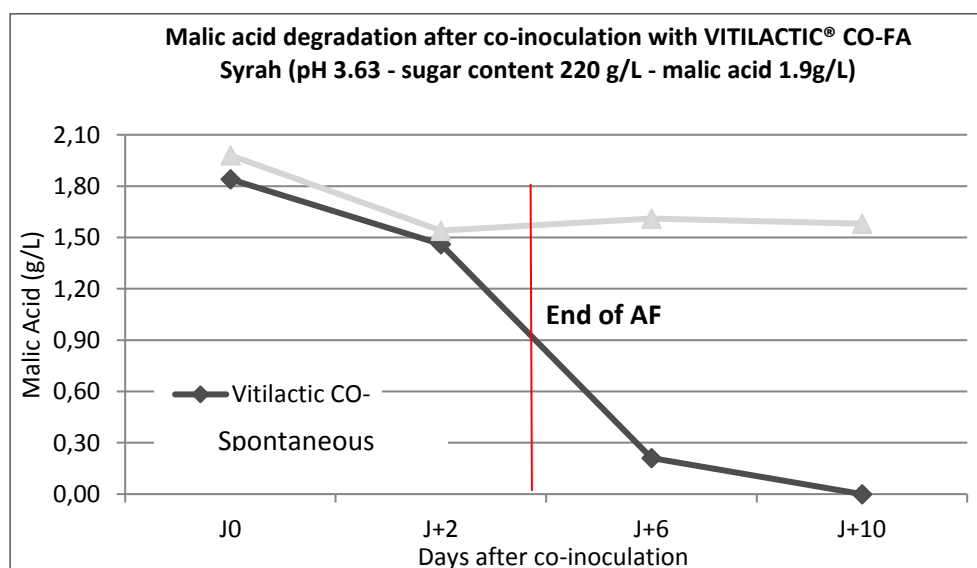
1

MICROBIOLOGICAL AND OENOLOGICAL PROPERTIES

VITILACTIC® CO-FA is an efficient tool to implement fast and secure malolactic fermentation of red wines in a broad range of action: on musts with a pH of > 3.3 and a potential alcohol degree up to 15% volume.

Characteristics and properties:

- Good implantation and fast fermentation kinetics
 - pH tolerance: ≥ 3.3
 - Alcohol tolerance: up to 15% vol.
 - SO₂ tolerance: up to 50 mg/L total SO₂ (pay attention to molecular SO₂ at low pH)
 - Temperature tolerance: > 17 °C
 - No production of biogenic amines
 - Low volatile acidity production
 - Bacteria cinnamoyl esterase negative: cannot produce precursors for ethylphenol production by *Brettanomyces*
- Maintains the quality of the wine aroma and brings out a roundness on the palate without producing a lactic taste



INSTRUCTIONS FOR USE



Use one sachet for right quantity of hL indicated on label.
Lowering the dosage or doing cross seeding or pitching methods will reduce the bacteria performance.

Co-inoculation (inoculation of bacteria 24 to 48 hours after addition of yeast)

The 1-STEP™ Kit can be used in co-inoculation without doing an acclimatization step when the conditions and must are suitable (pH > 3.4 and sulphite addition to the grapes < 8 g/hL).

- Dissolve content of the activator sachet in 25 L of drinking water (temperature between 18 and 25°C).
- Add content of the wine bacteria sachet and dissolve gently. Wait for 2 hours maximum.
- Transfer the rehydrated mix (activator and bacteria) into the fermenting must/wine 24 hours after the yeast is added.

Recommendation:

- Carefully monitor must temperature, which must be below 30°C at wine bacteria inoculation (alcohol < 5% vol.) and below 27°C when the level of 10% of alcohol is reached.
- In the case of must with pH < 3.4 or sulphite addition > 8 g/hL, it is recommended to use the 1-STEP™ Kit after alcoholic fermentation.

Possible use in sequential inoculation (post alcoholic fermentation)

- Dissolve content of the activator sachet in 25 L of drinking water (temperature between 18 and 25°C).
- Add content of the wine bacteria sachet and dissolve carefully by gently stirring. Wait for 20 minutes.
- Add to this suspension 25 L of wine with these characteristics: pH > 3.5 - total SO₂ < 45 mg/L - no free SO₂ - temperature between 18 and 25°C. Wait for 18 to 24 hours. If malic acid content is < 1.2 g/L, wait only for 6 to 10 hours.
- Transfer the activated malolactic bacteria starter culture into 250 hL tank.

Recommendations:

- Temperature range: from 17 to 25°C for red wines - from 18 to 22°C in limiting conditions (high alcohol > 14.5% vol. or low pH < 3.1 or high SO₂ > 45 mg/L).
- Check malolactic fermentation activity (malic acid degradation) every 2 to 4 days.
- Stabilize wine once malolactic fermentation is finished.
- In limiting conditions (overclarified wines, low pH, high SO₂ and alcohol level, etc.): rehydrate bacteria with **PRE-LACTIC™** (20 g/hL) and before the bacteria inoculation, add **MALOVIT™** (20 g/hL);

PACKAGING AND STORAGE

- Dose for 250 hL.
- Store unopened original sealed packaging: 18 months at 4°C or 36 months at -18°C.
- Once opened, use rapidly.
- Sealed packets can be delivered and stored for 3 weeks at ambient temperature (< 25°C) without significant loss of viability.

A Danstar product
Distributed by:

