1-STEP®
MALOLACTIC FERMENTATION UNDER CONTROL

BETA®

Oenococcus oeni

SUITABLE FOR CO-INOCULATION TO ENHANCE FRUIT

Lactic acid bacteria selected from nature

APPLICATION

BETA®, selected by the European Craft Malolactic bacteria selection project, is a vigorous lactic bacteria able to grow quickly and to achieve reliable MLF under most winemaking conditions. BETA® is a powerfull starter culture for co-inoculation that increases fruit flavor expression, best suited for :

- Red wines with high tannin structure : to enhance the level of red berry fruit characters, which contribute to red fruit notes and mouth sensations.
- White wines: to preserve and develop the fruity expression.
- Co-inoculation: to preserve the varietal fruit and increases some fruit esters.

PROCESS

The 1-Step® starter Kit is a highly efficient Starter culture to promote Malolactic Fermentation (MLF) of most red and white wines, in a wide range of oenological conditions. The 1-Step® starter Kit consists of a malolactic active freeze-dried Oenococcus oeni strain and specific activator. The excellent activity and high vitality of the 1-Step® starter culture is achieved during a short acclimatization step allowing that activates their metabolism to induce a fast onset of malolactic fermentation.

OENOLOGICAL AND MICROBIOLOGICAL PROPERTIES

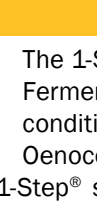
- **pH tolerance : > 3.2**
- **Alcohol tolerance : up to 15 % vol.**
- **SO_2 tolerance : up to 60 mg/L total SO_2**
- **T° tolerance : > 14°C**
- **High nutrition demand**
- **Good implantation**
- **MLF Kinetic : Fast**
- **Low volatile acidity production**
- **No production of biogenic amines**
- **Highly recommended for co-inoculation**

ORGANOLEPTICAL PROPERTIES

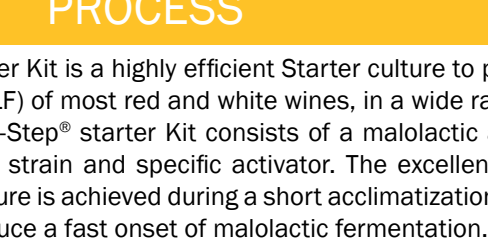
Beyond bio-deacidification, BETA® is a true winemaking agent, which contributes to the sensory complexity and the quality of wine as follows :

Buttery impact (Diacetyl production) :

- ***Moderate to high in Sequential inoculation***
- ***Low in Co-inoculation***



High in butandiol = increase volume and softness



Enhance fruity aromas

This sensory contribution can be further supported by the combination with an appropriate selected yeast strain and timing of ML bacteria inoculation.

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INSTRUCTION FOR USE

• SEQUENTIAL INOCULATION (POST-ALCOHOLIC FERMENTATION)

1A. Mix and dissolve content of the activator sachet in drinking water (temperature between 18 and 25°C) according to the table below.

	1A	2
1-Step® Kit	Volume of drinking water (L)	Volume of wine (L)
For 250 hL	25	25

1B. Add content of the lactic acid bacteria sachet and dissolve carefully by gently stirring. Wait for 20 minutes.

2. Add to this suspension the appropriate volume of wine (see table above) pH > 3.5, total SO_2 <45 ppm, no free SO_2 (temperature between 18 and 25°C). Wait for 18 to 24 hours. If malic acid content is < 1,2 g/L, wait only for 8 to 12 hours.

3. Transfer the activated malolactic bacteria starter culture into the wine according to the volume indicated on the kit.

Recommended temperature range :

- White wine / rosé wine : from 16 to 20° C.
- Red wine : from 17 to 25° C.

If limiting conditions (high alcohol > 14.5 vol, or low pH < 3.1, or high SO_2 > 45 ppm) : from 18 to 22°C.

Check malolactic fermentation activity (malic acid degradation) every 2 to 4 days.

• CO-INOCULATION (SIMULTANEOUS ALCOHOLIC FERMENTATION)

The 1-Step® activator and lactic acid bacteria can be used in co-inoculation without waiting 24 hours when the conditions and must are suitable (pH >3.4 and sulphite addition to the grapes <8 g/hL).

1A. Mix and dissolve content of the activator sachet in drinking water (temperature between 18 and 25°C) according to the table below.

1-Step® Kit	Volume of drinking water (L)
For 250 hL	25

1B. Add content of the lactic acid bacteria sachet and dissolve carefully by gently stirring. Wait for 2 hours maximum.

2. Transfer the rehydrated mix (activator and lactic acid bacteria) into the fermenting must /wine 24 hours after the yeast is added.

3. Check malolactic fermentation activity (malic acid degradation) every 2 to 4 days, as well as volatile acidity.

In the case of must with pH <3.4 or sulphite addition >8 g/hL, it is recommended to use the 1-Step® activator and lactic acid bacteria after alcoholic fermentation.

Recommended temperature range :

Carefully monitor must temperature, which must be below 30°C at lactic acid bacteria inoculation (alcohol < 5%vol) and below 27 °C when the level of 10 % of alcohol is reached.

PACKAGING AND STORAGE

- Available in sachet for inoculation of 250hL.
- Once opened, activator and lactic acid bacteria sachet must be used immediately.
- Activator and lactic acid bacteria sachet must not be used separately.
- This product can be stored for 18 months at 4°C and 30 months at -18/-20°C in original sealed packaging.
- Sealed packets can be delivered and stored for a few weeks at ambient temperature (<25°C/77°F) without significant loss of viability.

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.

Distributor

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