



# ENDOZYM® $\beta$ -Split

Enzymatic activities to enhance the aromatic expression of white red and rosé wines



## → TECHNICAL DESCRIPTION

**Endozym  $\beta$ -Split** contains a blend of  $\beta$ -glucosidase, rhamnosidase, apiosidase and arabinofuranosidase. All these activities are involved in the hydrolysis of several important compounds for the development of varietal wine aromas. Adding **Endozym  $\beta$ -Split** at the right conditions ensures the optimization of aroma extraction from the skins and in the finished wines. **Endozym  $\beta$ -Split** shows a wide range of pH and temperature stability, and tolerance to sugar and ethanol, showing suitable characteristics for all winemaking conditions.

It can be added to red, white and rosé wines in different stages of the winemaking process. Midway through fermentation it will help obtaining the most out of the aromatic precursors of the grapes. It may be also used in finished wines to fine-tune the aromatic profile. If used on white and rosé wines its activity can be stopped with bentonite treatment so it is recommended to add **Endozym  $\beta$ -Split** before protein stabilization. To optimize its activity it should be used at temperatures of 16°C-60°F and above.

## → COMPOSITION AND TECHNICAL CHARACTERISTICS

Enzymatic activity	Activity/g
PL (U/g)	2,500
PE (U/g)	250
PG (U/g)	1,500
CMC (U/g)	80
Total UP (U/g)	4,250

*The value is approximate and is not a specification.*

**PL** (Pectinlyase): breaks down both the esterified and non-esterified pectins. This is a fundamental activity of the AEB enzymes, since it produces a very rapid clarification speed.

**PE** (Pectinesterase): it supports the PG in breaking down pectin.

**PG** (Polygalacturonase): breaks down only the non-esterified pectins. Its enzymatic activity works in synergy with the PL activity and performs a very important role in determining must clarity and wine filterability.

**CMC** (Cellulase): represents several enzymatic activities which in synergy with pectinase, release colouring matter, tannins and aromatic precursors from the grape skin.

The total measure of enzyme activity, which is indicated for each preparation, can be expressed as:

**Total UP** (U/g), which is the measure of enzyme activity resulting from the sum of PL, PG, PE activities measured individually.





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**Endozym  $\beta$ -Split** is purified by the following activities:

**CE** (Cinnamyl Esterase): is an activity found in unpurified enzymes, which causes the formation of volatile phenols, compounds which lend unpleasant aromatic nuances to the wine, which, if present in high concentrations, are reminiscent of horse sweat.

## → DOSAGE

From 2 to 5 grams per hL depending on contact time, temperature and SO<sub>2</sub> content.

High sugar and low temperatures reduce the activity of **Endozym  $\beta$ -Split** so dosage must be increased accordingly.

Precaution need to be taken in order to avoid the enzyme coming into contact with high dosage levels of SO<sub>2</sub> or bentonite.

## → INSTRUCTIONS FOR USE

Dissolve directly in 20-30 parts of non-sulfurized must or in demineralized water and add to must or wine.

## → ADDITIONAL INFORMATION

### INFLUENCE OF SO<sub>2</sub>

Enzymes are resistant to SO<sub>2</sub> levels normally used in winemaking, however it is good practice not to put them in direct contact with sulfur solutions.

### ACTIVITY CONTROL

There are various methods for evaluating enzymatic activity. A system utilized by AEB is a method of direct measure, directly linked to the concentration of the PL, PG and PE; the total of the three activities yields the Total UP per gram unity. The determination methods of pectolitic units together with the relative activity diagrams are made available to all technical personnel by AEB.

## → STORAGE AND PACKAGING

Keep **Endozym  $\beta$ -Split** in the original sealed packaging away from light, and in a cool, dry, odour-free place at a temperature below 20°C. Do not freeze. Observe the expiry date on the packaging. Use promptly after opening.

500 g vacuum-sealed net cans.

