



# ENDOZYM<sup>®</sup> Thiol Rouge

Pectolytic enzyme for the extraction of thiol aromas from red grapes



## → TECHNICAL DESCRIPTION

**Endozym Thiol Rouge** is a specific liquid enzymatic preparation for the expression of thiol aromas of red vines, such as: Grenache, Merlot, Cabernet franc, Cabernet Sauvignon, Syrah, Mourvedre, Cinsault etc.

**Endozym Thiol Rouge** is a pectolytic enzyme which facilitates the release and the subsequent expression of varietal thiols, such as 4MMP (4-mercapto-4-methylpentan- 2one), 4MMPOH (4-mercapto-4-methylpentan-1ol), 3MH (3-mercaptohexan-1-ol) and 3MHA (3-mercaptohexil- acetate).

The utilization of **Endozym Thiol Rouge** facilitates the extraction and dissolution of the compounds present in grapes, including aromatic precursors and varietal aromas. **Endozym Thiol Rouge** releases these compounds from grapes by weakening the pectic chains and acts towards the secondary activities together with yeasts during fermentation.

These actions enable to obtain more intense and complex wines, with notes of red berries and grapefruit.

The effectiveness of **Endozym Thiol Rouge** comes from its production system (semi-solid fermentation facilitating the growth on natural substrate) and from the initial choice of the micro-organism. The obtained enzymatic preparations display specific pectolytic activities, in higher concentrations than the classical submerged fermentation. The semi-solid fermentation medium stabilizes the enzymatic activity and makes it more effective towards pH, temperature and potential must inhibitors.

## → COMPOSITION AND TECHNICAL CHARACTERISTICS

Enzymatic activity	Activity/g
Total UP (U/g)	10,500

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

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.

**Endozym Thiol Rouge** 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.

**Anthocyanase**: is a secondary enzymatic activity which causes a partial breakdown of the anthocyanins with a consequent increase of orange hues in the wines. AEB enzymes are obtained from *Aspergillus niger* strains, which do not produce anthocyanase.





# ENDOZYM<sup>®</sup> Thiol Rouge

## → DOSAGE

From 4 to 6 mL/hL or 100 kg of must to be treated.

The minimum suggested dosage varies according to the grapes' aromatic precursors and the must temperature. By working with higher doses, it is possible to correct the negative influence of low temperatures.

## → INSTRUCTIONS FOR USE

**Endozym Thiol Rouge** is a liquid enzymatic preparation and can be dosed automatically. Add directly into the must by diluting it into the mass when pressing or during the maceration.

## → 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 Thiol Rouge** 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.

1 kg net bottles in cartons containing 1 kg.  
10 kg net drums.

