

# LAFASE® XL EXTRACTION ROUGE

Liquid enzyme preparation for the maceration of red grapes.

Qualified for the elaboration of products for direct human consumption in the field of the regulated use in Oenology. Natural no GMO and preservative free. In accordance with the regulation (EU) 2019/934 and the food chemical Codex and JECFA.

## SPECIFICATIONS AND OENOLOGICAL APPLICATIONS

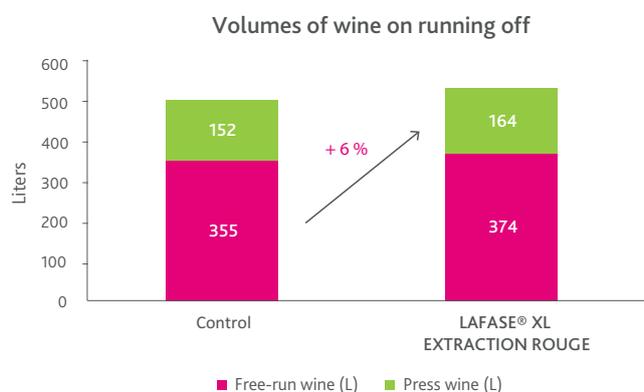
- LAFASE® XL EXTRACTION ROUGE is a liquid pectinolytic enzyme preparation rich in side-activities needed in maceration for the degradation of red grape skins.
- The cell wall of red grapes consists mainly of cellulose, hemicellulose and pectin. The pectin structure of the grape skin cells is more complex than that of the pulp. An enzyme preparation rich in side activities (cellulases, hemicellulases and rhamnogalacturonases) is necessary for efficient extraction of compounds of oenological interest during maceration. LAFASE® XL EXTRACTION ROUGE optimises the extraction of phenolic compounds such as anthocyanins and tannins and promotes the release of juice.

### LAFASE® XL EXTRACTION ROUGE:

- Increases the yield of wine and more particularly free-run wine.
- Favours the release of anthocyanins and tannins in red wines.
- Limits mechanical actions during extraction and pressing (drier pomace).
- Facilitates the clarification of wine in preparation for bottling.

## EXPERIMENTAL RESULTS

- Trials on Cabernet Sauvignon - Impact of LAFASE® XL EXTRACTION ROUGE (3 mL/100 kg) on the volumes of free-run wine and press wine.



LAFASE® XL EXTRACTION ROUGE allowed a general increase in the extraction yield (+ 5 % free-run wine and + 1 % press wine). After analysis, the wine made with LAFASE® XL EXTRACTION ROUGE showed a more intense colour (ICM + 12 %) as well as better phenolic extraction (TPI + 7 %). On tasting, the wine vinified with LAFASE® XL EXTRACTION ROUGE is judged to be superior to the control in terms of balance and structure (data not shown in this document).

## PHYSICAL CHARACTERISTICS

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Aspect .....	liquid
Colour .....	brown
Insoluble matter .....	none
Stabilisers .....	glycerol, potassium chloride

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Standardisation value (PGNU/mLg) .....	≥ 5000
Approximate density (g/L) .....	1180
Preservatives .....	none

## CHEMICAL AND MICROBIOLOGICAL ANALYSIS

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Toxins and mycotoxins .....	none
Total viable germs (CFU/g) .....	< 5x10 <sup>4</sup>
Coliforms (CFU/g) .....	< 30
<i>E.coli</i> (/25 g) .....	none
<i>Salmonella</i> (/25 g) .....	none

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Lead (ppm).....	< 5
Arsenic (ppm).....	< 3
Mercury (ppm).....	< 0.5
Cadmium (ppm).....	< 0.5

## PROTOCOL FOR USE

### OENOLOGICAL CONDITIONS

- LAFASE® XL EXTRACTION ROUGE can be added to grapes when filling the tank.
- SO<sub>2</sub>: Enzymes are not sensitive to normal doses of SO<sub>2</sub> (<300 mg/L) but it is recommended not to put the enzymes and sulphite solutions in direct contact.
- The preparations are generally active at temperatures from 5 to 55°C (41-130°F) at a wine pH of 2.9 to 4.

### DOSAGE

The dosage must be adapted according to the grape variety, level of ripeness, wine style as well as the sanitary state of the grapes and maceration temperature.

- 2 mL/100 kg for a pre-fermentation maceration temperature of 20 to 30°C (68 to 86°F).
- 4 mL/100 kg for a pre-fermentation maceration temperature of 8 to 20°C (46 to 68°F).
- Increase the dose by 1 mL/100 kg on whole cluster.

### IMPLEMENTATION

Dilute LAFASE® XL EXTRACTION ROUGE in 10 times its volume in water or must before incorporation.

*Safe practice: refer to the product safety sheet.*

### STORAGE RECOMMENDATION

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- Store off the ground in the unopened original packaging at a moderate temperature in a cool area (2-10°C / 35.6-50°F) not liable to impart odours.
  - Optimal date of use: 3 years.

### PACKAGING

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1L/1.18 kg drum.  
10L/11.8 kg drum.

