

DATA SHEET ENZYMES



# **Dynamic settling of musts. Flotation.**



# **Characteristics**

**Enovin FL** is a specific enzymatic preparation for dynamic settling processes, particularly flotation.

This product facilitates rapid pectin breakdown and the rise to the surface of solid particles, allowing the clean must to be collected rapidly.

It favours the complementary action of clarifying agents (gelatine, silica sol, bentonite).

It guarantees the formation of compact, dense foam in the flotation system and its perfect separation from the must.

# Application

#### • Dynamic settling by flotation.

Due to the intrinsic peculiarities of the flotation settling system, the mechanism of action of the enzymes differs from that of other oenological processes: pectin breakdown must take place very quickly (<4 hours) and the resulting products must remain in the form of small floccules in order to rise to the surface. The enzymatic cutting activities of this preparation facilitate this process.

• Enovin FL can be used for other dynamic settling processes: centrifugation.

#### **Enzymatic activity**

It combines various pectolytic activities: pectin lyase, polygalacturonase and pectinesterase. In contrast with enzymatic preparations designed for static settling, the product contains a **higher pectin lyase activity (PL) in proportion to its polygalacturonase activity**, which allows rapid reduction of the viscosity.

Enovin FL is free of cinnamyl esterase (FCE) activity.



Measurement of effective enzyme activity in vinification

Substrate: PG: polygalacturonic acid; PE and PL: highmethoxyl pectin, (pH: 3.5; Temp.: 30°C = 86°F).

IU: International Units.

	Activity [IU/g]
Polygalacturonase: PG	224,4
Pectin lyase: PL	14,7
Pectin methylesterase: PE	4,7

# Dosing

Settling	>2ml/hl
Flotation	>2 ml/hl
Centrifugation	>2ml/hl

PLEASE NOTE: The working dose should be optimised for grape quality and varietal, pressing conditions, temperature and available time.

# Instructions for use

Add the solution to the entire volume of must to be treated when filling the vat, and stir thoroughly.

If applying before pressing, dilute the preparation in 20 times its weight of water and add to the product to be treated.

Adding the preparation with a metering pump when removing the fruit from the crusher or from the press ensures uniform product distribution.

#### Precautions

• SO<sub>2</sub> at the dosage generally used does not interfere with enzymatic activity. However, it should not be added together with the preparation.

## Physical appearance

Caramel-coloured liquid.

# Presentation

0.5, 1 and 25-kg packages.

### Microbiological and physico-chemical properties

Salmonella [UFC/25g]	Absent
Total coliforms [UFC/g]	< 30
E. coli [UFC/25g]	Absent
Antimicrobial activity	Undetectable
Mycotoxins	Undetectable
Pb [mg/kg]	< 5
Hg [mg/kg]	< 0.5
As [mg/kg]	< 3
Cd [mg/kg]	< 0.5

#### Production

**Enovin FL** is obtained from specific cultures of the nongenetically modified (GMO-free) filamentous fungus *Aspergillus niger* on natural media. Enzymes are extracted with water, then purified, concentrated and standardised

#### Storage

Store in the original packaging in a cool, dry, odour-free place.

To maintain its properties for over one year or once open, maintain at a temperature of 4  $^{\circ}$ C.

Prolonged exposure to temperatures above 35 °C will reduce its effectiveness.

REGISTRATION: R.G.S.A: 31.00391/CR Product compliant with International Oenological Codex and EC Regulation No. 606/2009.

