

## **SULFITE FREE** WHITE AND ROSÉ WINES Oxidation prevention and microbiological control

## Objective:



STEP	PRODUCT	DOSE	Composition	Properties
Harvest Hygiene Harvest Maturity Transport Bioprotection	SELECTYS LA CROQUANTE or LA FRUITEE	T°C#14<18°c pH #3,2<3,5 0,5 g/hl 7-10 g/hl	Saccharomyces cerevisiae	Prerequisite: must be perfect from the harvesting equipment to the winery. Very good state of health is imperative.  Harvesting at night or in the early morning. Avoid advanced maturity (µbio risk), low pH necessary. As soon as the juices are released => bioprotection.  Medium occupied by the yeast used in AF producing very little SO <sub>2</sub> . Inhibition of apiculate yeasts, Brett. Aromas and fullness. 0 fermentative capacity.
or Biocontrol	OENOVEGAN® MICRO	3-10 g/hl	Chitosan	Curb the growth of spoilage microorganisms such as <i>Brettanomyces</i> (option).
Reception Acidification Pressing Tannin treatment	Tartaric Acid  OENOGAL	pH # 3,2 5 g/hl	Gallic tannins	Cycle should be as fast as possible. Limit press cake crumbling. Powerful antioxidant + action on polyphenol oxidases.
Cold static settling Enzyme treatment (o)* Fining flows	Chilling  LYSIS® UC  PHYLIA® EPL	8-12°C 100 – 150 NTU 1-2 ml/hl 5 g/hl	Pectinases EPL	Step must be as brief as possible (watch out for start of AF).  Concentrated specific enzymes for fast clarification.  Very good clarification. Fining of oxidized and oxidizable
Fining presses  Flotation  Enzyme treatment Fining	LYSIS® UC PHYLIA® EPL	12 g/hl 2 ml/hl 5-10 g/hl	Pectinases EPL	polyphenols respects raw material. Eliminates bitterness.  Preferable clarification treatment (fast). Favours the rising and settling of the lees 'cap'.
Diwine®	DIWINE® THIOL or AROME	15-20 g/hl	PVP/PVI-based complex	Fining of phenol acids and metal ions (Fe, Cu) oxidation catalysts. Prevention of oxidation and longevity of wines.  Reducing compounds (GSH, peptides) antioxidants: prevents color
Racking Inerting	PHYLIA® AR	30 g/hl (+)	Yeast derivatives	evolution and protects aromas and freshness. To be added quickly, as soon as the racking is finished (sequential addition preferable (+): 20 g/hl on must then 10 g/hl after each racking / 40 g/hl max). Frequency: during each transfer and at the end of AF.
<b>AF</b> Yeasting	SELECTYS LA CROQUANTE or LA FRUITEE	20 g/hl	ADY Yeast derivatives,	Secure fermentation. Very low production of $SO_2$ (< 10 mg/l) and acetaldehyde. To AF = 18°C / 20°C when d<1010
Nutrition Oxygenation di- 20	VIVACTIV® PREMIER O <sub>2</sub>	20 g/hl 8 mg/l	AA, survival factors O <sub>2</sub> (g)	Yeast preparer, AF control and VA production. <u>To be added in the leaven rehydration water.</u> <u>If bioprotection</u> : adjust the assimilable $N_2$ during sequential inoculation Sterol biosynthesis, viability. Possibility of doubling the dose if high TAP
Mid-AF (option)  End of AF / d<1000	VIVACTIV® CONTROLE	20 g/hl Full vat	Autolysates and yeast hulls	Difficult AF: detoxifies the medium, prevents AF from stopping and reactivates AF.  Prevents oxidation of wines.
potential <b>MLF</b> Co-inoculation (AF D+1 or 2)	Bactélia® Crescendo	Kit / X hl	Oenococcus oeni	Desirable to avoid the risk of MLF in the bottle.  Operates in difficult conditions (TAV). Optimum T° 16-18°C.  Choice of inoculation type to be pondered.
End of AF Racking D+3 Ageing Tannin treatment dissolved CO <sub>2</sub>	Oenotannin Velvet	[O <sub>2</sub> ]<0,4 mg/l 5 g/hl 800-1000 mg/l	Seed tannins	Controls dissolved $O_2$ : $CO_2$ inerting + $N_2$ injection during transfers. <b>Sulfiting if necessary (low <math>SO_2</math>).</b> Use oenological products without $SO_2$ => powders. Structures and protects the wine $(O_2)$ . Protection. Maintain $[CO_2]$ > 800 mg/l.
Stabilization  µbio Problem	MFT or flash pasto OENOVEGAN® MICRO	3-10 g/hl	Chitosan	µbio stabilization. Pay attention to organoleptic impact pasteurization.  Brettanomyces population control (option).

For " 0 added sulfites " vinification, use powders formulations

