






THIOLS OPTIMISATION PROCESS



SYNERGY THIOLS

- 1 **ON VINES** Good nitrogen nutrition
- 2 **HARVEST** Healthy grape clusters
Early harvest date
- 3 **SKIN MACERATION**  **VIAZYM® AROMA**
2 g/100 kg of grapes
T°10 to 15°C, 3 to 6 h
- 4 **AFTER SETTLING**  100 to 200 NTU
SUBLIWHITE 5 to 10 g/hL
NEO CRISPY® 20 to 30 g/hL
- 5 **ALCOHOLIC FERMENTATION**  **VIALATTE FERM® W28**
SO.DELIGHT
- 6 **NUTRITION**  **NUTRICELL® FULLAROM** or
NUTRICELL® AA
+ **NUTRICELL®**
midway AF if needed
- 7 **AGING** Add SO₂ beforehand and
ascorbic acid before
aging on lees
- 8 **FINING**  **PROVGREEN PURE WINE**
(5 to 20 g/hL)



by  SOFRALAB

VIALATTE FERM® W28



It is a *S. cerevisiae* yeast selected for revealing thiols during making wine from vine varieties rich in aromatic precursors. Under optimum conditions of phenolic ripeness, this yeast increases citrus and passion fruit notes while providing the wine with a highly trendy style. Its excellent fermentative capacities are apparent even under difficult conditions (low temperature, high alcoholic level, nitrogen deficiency, etc.). **VIALATTE FERM® W28** is

recommended for making wine with vine varieties such as Sauvignon, Colombar, Verdejo, Petit Manseing or for red grape varieties used for aromatic rosé wines.

Packaging: 500 g and 10 kg

Application rate: 20 g/hL

SO.DELIGHT



It is a *S. cerevisiae* yeast selected for its aptitude to produce aromatic white and rosé wines with a fresh and fruity style. The aromatic profile obtained is complex with varietal and fermentative notes. **SO.DELIGHT** is recommended for making wines derived from neutral or aromatic grape varieties.

Packaging: 500 g

Application rate: 20 g/hL

YEASTS

VIALATTE FERM® W28		SO.DELIGHT	
Aromatic profile of Thiol	Fresh / Citrus	Exotic Fruit	Fruity
Alcoholic fermentation	T° of AF: 12 to 13°C	T° of AF: 12°C - 13 °C At the beginning of AF then 15°C from mid fermentation	T° of AF <15°C
NUTRITION	Specific nutrition NUTRICELL® AA		Specific Nutrition NUTRICELL® FULLAROM

NUTRICELL® AA



It is a nutrient made up exclusively from specific yeast derivatives rich in amino acids. **NUTRICELL® AA** enables good alcoholic fermentation management and optimizes the aromatic profile of wine by promoting the production of superior esters and superior alcohol acetates (derived from breakdown of amino acids) along with revealing thiols

during alcoholic fermentation.

Packaging: 1 kg and 10 kg

Application rate: 20 to 40 g/hL

NUTRICELL® FULLAROM



It is a nutrient formulated based on yeasts and thiamine specifically selected for their impact on wine aromas. **NUTRICELL® FULLAROM** enables good alcoholic fermentation management while improving the production of fermentation esters during winemaking of grape varieties lacking aromatic precursors or diluted matter coming from high yield parcels.

Packaging: 1 kg and 10 kg

Application rate: 20 to 40 g/hL

NITROGEN DEFICIENCY IN MUSTS

- Avoid adding any DAP or ammonium sulphate
- Implement rich in amino acids organic nutrients
- **NUTRICELL® AA or NUTRICELL® FULLAROM**
Amino acids = available nitrogen for AF
- Without altering thiol expression

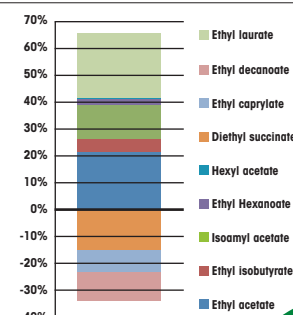
ANALYSES OF AROMAS SAUVIGNON BLANC LOIRE VALLEY

30% more aromas are obtained using **NUTRICELL® FULLAROM**.
Using **NUTRICELL® FULLAROM** increases the production of:

- Ethyl laurate
- Isoamyl acetate



VARIATION COMPARED TO CONTROL SAMPLE



NUTRIENTS

NEO CRISPY®



Rich in amino acids and reductive peptides, **NEO CRISPY®** is a yeast product used for making aromatic white and rosé wines. Used early on at the beginning of the wine-making process, **NEO CRISPY®** is remarkably efficient for protecting the aromatic and color compounds of wine.

NEO CRISPY® reinforces the natural resistance of musts from oxidation.

Packaging: 1 kg and 5 kg

Application rate: 15 to 30 g/hL

YEAST
PRODUCTS

SUBLIWHITE



SUBLIWHITE is a blend of selected grape tannins. Experiments carried out over several years have enabled to develop **SUBLIWHITE**, a product adapted to white wine-making.

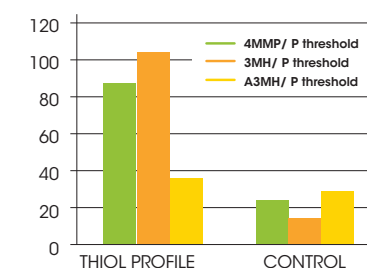
SUBLIWHITE preserves the yellow-green color and enables an optimized clarification of white wine following alcoholic fermentation. It develops a fruity, floral and fresh

character nose. **SUBLIWHITE** provides roundness, structure and a unique balance for wine tasting and removes any vegetal character.

Packaging: 1 kg and 5 kg

Application rate: 5 to 15 g/hL

ANALYSIS OF THIOLS - SAUVIGNON BLANC BORDEAUX

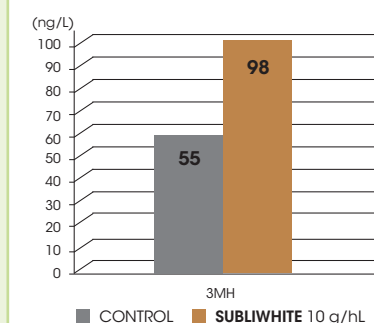


THIOL PROFILE =
10 g/hL of **SUBLIWHITE** +
20 g/hL of **NEOCRISPY®**

- 4 times greater 4MMP
- 5 times greater 3MH
- 25% more A3MH

Perception threshold: 4MMP : 0.8 ng/L ; 3MH : 60 ng/L ; 3MH-A : 4 ng/L

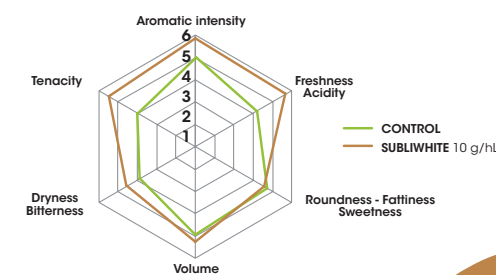
ANALYSIS OF 3 MERCAPTOHEXANOL SAUVIGNON BLANC LANGUEDOC ROUSSILLON



Perception threshold:
3MH : 60 ng/L

Concentration of 3MH
two times greater with
SUBLIWHITE

SENSORY ANALYSIS SAUVIGNON BLANC LANGUEDOC ROUSSILLON



TANNINS

THIOLS of aromatic precursors

AROMATIC PRECURSORS IN GRAPES

MOLECULE	CHEMICAL NAME	AROMA DESCRIPTOR	THRESHOLD (NG/L)	CONCENTRATION IN WINES (NG/L)
4MMP	4-methyl-4-mercaptopent-2-one	Tomato leaf, blackcurrant bu, cat urine	0,8	4-44
A3MH	3-mercaptohexanol acetate	Passion fruit	4	0-800
3MH	3-mercaptohexanol	Grapefruit, exotic fruits	60	600-1200
4MMPH	4-methyl-4-mercaptopent-2-ol	Citrus fruit peel	55	0-100
3MMB	3-methyl-3-mercaptobutanol	Cooked leeks	1500	80-130

COPPER AND THIOLS INTERACTION

Copper is very reactive to S-H thiol groups. They combine and definitively precipitate aromas. In addition, certain yeast strains are sensitive to copper. Their metabolism is disturbed, thus limiting even more the revealing of thiols. It is therefore necessary to manage the concentration of copper in musts in order to optimize thiol production.

YEAST STRAINS WHITE AND ROSE WINES	SENSITIVITY TO COPPER
SO.DELIGHT	Sensitive
VIALATTE FERM® W12	Moderately sensitive
VIALATTE FERM® R71	Very sensitive
VIALATTE FERM® W28	Very sensitive