

THE INNOVATION YOU NEED

OENOLOGICAL PRODUCTS CATALOGUE 2023-2024

THE INNOVATION YOU NEED

martinvialatte.com



A LONG HISTORY OF INNOVATION



A CENTURY OF EVOLUTION IN THE DEVELOPMENT OF EASY, SECURE AND AFFORDABLE SOLUTIONS FOR ANY CELLAR.

A world of connections offering simple, personalised oenological solutions. In permanent contact with oenologists, research institutes and the international market. Reliable oenological products to create a simple way to produce wine in the world.



• 1922	The Sofralab-MARTIN VIALATTE [®] company was set up by Messieurs Martin and Vialatte.
• 1925	Creation of a testing and research laboratory.
• 1964	Introduction of membrane filtration. Study of tartrate stabilisation: Creation and production in our Parisian workshops of metatartaric acid index V40 [®] .
• 1978	LACTA B - first casein bentonite compound for the vinification of white wines.
• 1982	Continuous tartrate stabilisation with the development of VINIPAL. Material for wine chilling, to guarantee tartrate stabilisation of white wines.
• 1983	Launch of the first Seyal and Verek gum arabic.
• 1985	GÉLISOL®: pioneer in the development of a specific range of fining agents (gelatin).
• 1989	Research into oenological tannins, creation of TANIXEL® chestnut tannins and of the VITANIL® range.
From 1990 • to 2000	Development of ranges of yeasts in collaboration with French research institutes (IFV, SICAREX) in all the French terroirs, to ensure the continuing biodiversity of French grape varieties.
• 1995	Launch of the enzymology laboratory.
• 1996	Beginning of research into plant proteins. Pea proteins are selected by MARTIN VIALATTE [®] and are the first plant alternative in winemaking to fining agents of animal origin.
• 2004	Beginning of research on Carboxymethylcellulose (CMC), cellulose from wood for the tartaric stabilization of white wines.
• 2005	Validation of plant proteins by the International Organisation of Vine and Wine (OIV) and by the European Union. Launch of the PROVGREEN® range, the first range of products based on pea proteins.
From 2008 to 2012	Selection programme and launch of the VIALATTE FERM® range, a new 2012 generation of yeast to celebrate the 90 th anniversary of MARTIN VIALATTE®.
• 2009	Launch of the CRISTAB [®] range (CMC).
• 2010	The INTERVITIS prize awarded to MARTIN VIALATTE®'s 'Allergen Free' products.
• 2012	Several years of research in partnership with the AWRI led to the authorization of CMC in Australia. Launch of CRISTAB® BV on the market.
• 2015	Launch of the KTS [®] range.
• 2016	A study on heavy metals conducted with the AWRI led to the launch of Origin [®] SH on the Australian market.
• 2017	KTS® FLOT - Launch of the first 100% vegetable alternative to gelatin.
From 2017	The ANTARTIKA® range - New generation of tartaric stabilizers based on a new biopolymer authorized by the OIV, and vegetal polysaccharide.
• 2019	A new product in the KTS® range, KTS® FA is a biocontrol agent of plant origin that regulates the microbial diversity of musts.
• 2020	Launch of ProVGreen® Smoke Taints.
• 2021	Launch of OENOTERRIS [®] and reasoned agro-oenology programmes.
• 2022	100 YEARS OF INNOVATION AND OENOLOGY BY YOUR SIDE
	The VIALATTE FERM [®] range has been expanded to include 3 new strains: W58 to enhance terpene aromatic expression, R26 to work with contemporary Syrahs, and HD18, an all-purpose strain for difficult fermentation and high alcohol content.

ABOUT GRAPEWORKS

Established in 2001, Grapeworks is a leading provider of premium winemaking and beverage supplies, premium yeasts, fining agents, equipment, bottling and fruit handling machinery. Our complete range of flexible solutions cover winemaking and cider, spirit, beer and kombucha production.

Grapeworks has been the Australian distributer since 2010 of the premium oenological products by French company Sofralab, suppling the MARTIN VIALATTE and Station Œnotechnique de Champagne ranges. These products are used by many local top Australian winemakers.

Advice is never far away with our in house specialist and the Research & Development department of Sofralab on hand to support any query or request, in relation to the Sofralab range of products and their application.

And as of January 2021, Grapeworks has had 18 of the Sofralab products certified as organic by ACO Certification Ltd with more to come in the future. •

Grapeworks is more than a provider of premium winemaking and beverage supplies, we're your business partner.



For more information or to talk to our Oenological Manager, contact 03 9555 5500 or email, info@grapeworks.com.au

71-75 Redwood Drive, Dingley Village, Victoria 3172

Grapeworks.com.au

WORLDWIDE PRESENCE IN MORE THAN 45 COUNTRIES

For 100 years we at MARTIN VIALATTE®

MARTIN VIALATTE

THE INNOVATION

have used our knowledge and expertise to meet the expectations and changing needs of winemakers with the help of a team of experienced oenologists. MARTIN VIALATTE® accompanies winemakers with a clear idea of what oenology is all about: passing on techniques and methods that result from our experience and our awareness of the real needs of winemakers.

The driving force behind MARTIN VIALATTE®'s work in advising winemakers and designing oenological products lies in our reliance on respecting food quality and safety (ISO22000), our expertise, our teams and the innovative research carried out by our Research and Development Department.

In partnership with research institutes in France and throughout the world, we seek to develop the innovations of tomorrow.

Since 1922, we at MARTIN VIALATTE[®] have been helping you to meet your goals, and this is our greatest source of pride.

MARTIN VIALATTE®,

is now connected **TO 5500 WINERIES WORLDWIDE** sharing its oenological and technical know-how and personalised analysis and consulting with its customers.



The SIMILIOAK[®] range ensures the protection of flavours and prevents the evolution of colour over time thanks to their strong antioxidant power. Discover it on page 54



KTS® FA is used as a biocontrol agent that contributes to the reduction of sulphite doses and reduces contamination caused by spoilage microorganisms. Discover it on page 19



The VIALATTE[®] FERM range has been expanded to include 3 new strains: W58 to enhance terpene aromatic expression, R26 to work with contemporary Syrahs, and HD18, an all-purpose strain for difficult fermentation and high alcohol content.

Discover them on pages 10, 11 and 12

KTS® FLOT

FINING Ultra fast musts and wines fining agent, #1 in static and flotation.

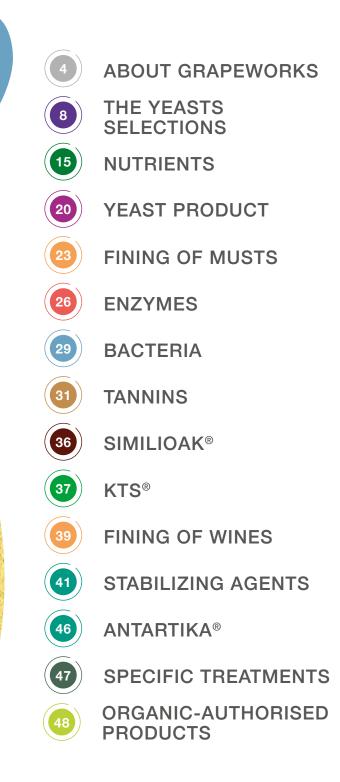
Discover it on page 31

OUR STAR PRODUCTS

ANTARTIKA® TARTARIC STABILISATION The next generation of tartaric stabilisers for wines, combining long-lasting stabilisation and the preservation of organoleptic qualities.

Discover it on page 68

Find out more about these products in the specific sections within the catalogue







INDEX & LEGEND

In accordance with current

European regulations

Contraction of

In accordance with the NOP (National Organic Program) U.S. regulation

Vegan

Australian Certified Organic

ACO

Allergen Free

NEW

an all-terrain yeast strain

VIALATTE FERM® HD18

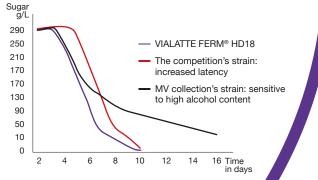
VIALATTE FERM® HD18 is a *S. cerevisiae* yeast selected for its ability to initiate alcoholic fermentation with a very high sugar content, coupled with great resistance to high alcohol content. It ensures a great aromatic intensity and roundness in the mouth. **VIALATTE FERM® HD18** is recommended for the production of strong red wines. It can also be used for the vinification of white and rosé wines.

Application rate: 20 g/hL Packaging: 500 g









VIALATTE FERM® R96

VIALATTE FERM® R96 is a *S. cerevisiae* yeast particularly recognized for developing grape potential and for its versatility. VIALATTE FERM® R96 adapts remarkably well to different vine varieties and different degrees of ripeness to make young or long ageing wines. The aromatic profile is orientated towards red and dark berry notes going toward spicy and balsamic notes (pepper, eucalyptus, licorice, etc). Wines produced are complex and have great aromatic freshness. VIALATTE FERM® R96 is recommended for wine-making with Syrah, Merlot, Cabernet, Mourvèdre vine varieties.

Application rate: 20 g/hL

Packaging: 500 g and 10 kg Recommendation: for best results use with NUTRICELL® FINISH and TANIRAISIN



VIALATTE FERM[®] W12

S. cerevisiae galactose – selected for making white, rosé and red wines VIALATTE FERM® W12 optimizes aromatic finesse and full-rounded flavour. VIALATTE FERM® W12 is quickly autolyzed and is thus perfectly suited for ageing in tanks or barrels with stirring of lees. The qualitative potential and the varietal character of grapes grown and harvested under best conditions is thus preserved. VIALATTE FERM® W12 is recommended for Chardonnay, Muscadet, Viognier vine varieties. VIALATTE FERM® W12 is a robust yeast and is likewise recommended in the event of fermentation stops.

Application rate: 20 g/hL

Packaging: 500 g

Recommendation: for best results use with SUBLIWHITE® and NEO® SWEET



VIALATTE FERM® R71

VIALATTE FERM® R71 is a *S. cerevisiae* yeast selected for its capacity for producing intense red and rosé wines which are fresh and fermentative (small red berries, strawberries, red currants, etc). VIALATTE FERM® R71 is very robust and allows alcoholic fermentative to be carried out under good conditions even with limiting factors (alcohol, low temperature, low turbidity ...). This product can be used for traditional wine making or for thermovinification. VIALATTE FERM® R71 is recommended for producing supple and fruity red and rosé wines with an international style.

Application rate: 20 g/hL Packaging: 500 g Recommendation: for best results use with NUTRICELL® AA



VIALATTE FERM® W28

VIALATTE FERM® W28 is a *S. cerevisiae* yeast selected for the expression of thiols during vinification of grape varieties rich in aromatic precursors. In optimum conditions of phenolic maturity, it intensifies citrus and passion fruit notes, giving wines a very contemporary style. It has excellent fermentation capacity even under difficult conditions (low temperature, high alcohol levels, nitrogen deficiency, etc). **VIALATTE FERM® W28** is recommended for the vinification of grape varieties such as Sauvignon, Colombard, Verdejo and Petit Manseing, or for red grape varieties used in the production of aromatic rosé wines.

Application rate: 20 g/hL

Packaging: 500 g

Recommendation: for thiol optimisation, use with VIAZYM® EXTRACT PREMIUM, NUTRICELL® AA, SUBLIWHITE® and NEO® CRISPY





VIALATTE FERM[®] R82

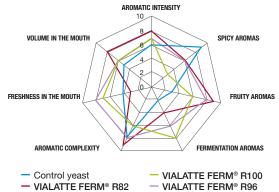
VIALATTE FERM® R82 is a *S. cerevisiae* yeast selected for making wine with high maturity grapes and for making medium to long ageing red wines with a ripe fruit profile (red or dark berries). **VIALATTE FERM® R82** likewise limits the reduction of certain sensitive vine varieties such as Carignan or Syrah.

Application rate: 20 g/hL Packaging: 500 g





Impact of the yeast strain on the aromatic profile of a Syrah red wine



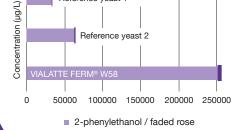
NEW

VIALATTE FERM® W58

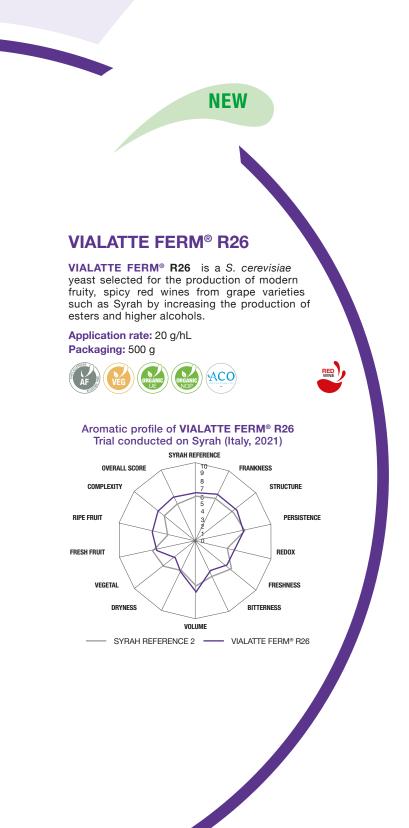
A combination of *S. cerevisiae* and *S. uvarum*, selected for the production of aromatic white wines. **VIALATTE FERM® W58** enhances the presence of varietal terpenes to produce fresh, floral aromatic profiles. **VIALATTE FERM® W58** is recommended for Muscat, Riesling and Chardonnay, as well as more neutral grape varieties for which a floral profile would complete the blend.

Application rate: 20 g/hL Packaging: 500 g Recommendation: to optimize the revelation of terpenes, use with VIAZYM® MP or VIAZYM® AROMA





2-phenylethyl acetate /f loral



SO.DELIGHT®

SO.DELIGHT[®] 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 vine varieties.

Application rate: 20 g/hL Packaging: 500 g





SO.FRUITY



SO.FRUITY is a *S. cerevisiae*, L1414 strain yeast, selected in Beaujolais by the IFV. This yeast has excellent fermentation action and is appropriate for short to medium duration wine-making. Wine expression is characterized by notes of small red berries. **SO.FRUITY** enables very good extraction of anthocyanins and tannins and thus produces colorful wines with a soft structure. **SO.FRUITY** is particularly recommended for Gamay in Beaujolais Villages and in Crus along with making supple and fruity wines from Merlot, Cabernet Sauvignon, Gamay, Pinot Noir amongst other vine varieties.

Application rate: 20 g/hL Packaging: 500 g





SO.FLAVOUR®

SO.FLAVOUR® is a *S. cerevisiae* yeast selected in the Côtes-du-Rhône in collaboration with the Domaine Saint-Apollinaire estate (a biodynamic wine estate). This yeast has very good development of fermentation with tolerance to high degrees of alcohol. Complex aromatic expression dominated by ripe fruits (red and dark fruit); the mouthfeel is rich and harmonious, characterized by a good balance between tannin and roundness. **SO.FLAVOUR®** is recommended for making red modern, concentrated, complex and fruity wines made from great international dark vine varieties: Merlot, Cabernet-sauvignon, Syrah, Grenache, Tempranillo, Zinfandel etc.

Application rate: 20 g/hL Packaging: 500 g





MARTIN VIALATTE® PRODUCT RANGE

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VIALATTE FERM® W12		S. cerevisiae galactose	Making fine and elegant wines in view of optimizing maturing on lees and valuing the qualitative potential of the grapes		Medium if temp. < 16 °C	10 to 30°C	Low	15%	Low	Low	Moderately sensitive	Low
VIALATTE FERM® W28		S. cerevisiae	Making aromatic white and rosé wines, optimising expression of thiols	Expression of thiols	Rapid	10 to 16°C	Low	16.50%	Low	Low	Highly sensitive	Low
VIALATTE® FERM W58	WHITE	S. cerevisiae and S. uvarum	Production of aromatic white wines to enhance the value of terpenic grape varieties	Floral, production of higher alcohols and floral esters	Medium	Recom- mended sequential AF: start at 12°C to finish at 18°C	Medium to low	14.5-15%	Medium	Low	ND	Low
VIALATTE FERM® R71		S. cerevisiae	Making supple and fruity red and rosé wines with a fermentative profile	Production of fermentation aromas	Rapid	14 to 32°C	High	16%	Medium to Low	Low to Medium	Highly sensitive	Low
VIALATTE FERM® HD18	whites	S. cerevisiae	A strain that resists high alcohol content, for the production of strong red wines	Production of fermentation esters	Fast and regular	10 to 30°C	Low	18%	Medium	Medium to low	Medium	Medium to low
VIALATTE FERM® R26		S. cerevisiae	Production of fruity, spicy red wines of the modern Syrah type	Production of esters and higher alcohols	Medium	22 to 30°C	Medium	16.5%	Low	Medium to low	ND	Low
VIALATTE FERM® R82	RED	S. cerevisiae	Making complex red wines with ripe red and dark berry aromas while avoiding the reduction of sensitive vine varieties	Production of fermentative aromas - expressing varietal aromas	Slow	18 to 30°C	Medium	16%	Medium to Low	Medium	Moderately sensitive	Very Low
VIALATTE FERM® R96	RED	S. cerevisiae	Making complex red wines with a fruit and spicy profile with great aromatic freshness	Expressing varietal aromas	Medium	15 to 28°C	Élevé	16%	Medium to Low	Low	Moderately sensitive	NA
SO.DELIGHT®		S. cerevisiae	Making fresh and fruity aromatic white and rose wines while developing fermentation aromas along with thiol and terpene-type	Production of fermentative aromas - expressing varietal aromas	Very rapid	10 to 16°C	High	15%	Medium to Low	Medium	Sensible	Low
SO.FRUITY	RED	S. cerevisiae	Making supple red wines with a fresh and fruity profile	Production of fermentation aromas- expression of varietal aromas	Rapid	18 to 32°c	Low	14%	Low	Low	Moderately sensitive	Low
SO.FLAVOUR®		S. cerevisiae	Making concentrated red wines with a complex and fruity profile	Production of fermentation aromas - expression of varietal aromas	Medium	18 to 32°C	Medium	15%	Medium to Low	Medium	Not very sensitive	Low

* : IFV data

NA: data not available

TO PRODUCE A WHITE WINE WITH A TERPENIC PROFILE

Terpenes are varietal aromas commonly found in grape varieties such as Muscat, Gewürztraminer or Riesling.

Several classes of molecules belonging to the terpene family are **of aromatic interest in wine**, e.g., monoterpenes contribute to the **floral aroma**, while bicyclic terpenes provide notes of menthol. Their concentration in the berries naturally **depends on the grape variety**, and also varies according to cultural and climatic conditions such as sunshine. There are different vinification tools available **to optimise and preserve this aromatic potential**. The MARTIN VIALATTE[®] solutions shown below enable you to achieve these

goals.

VIAZYM[®] MP

A preparation containing glycosidase activities that enable **sequential enzymatic hydrolysis**: extraction of terpene aromatic precursors during skin maceration and subsequent release of terpene aromas at the end of AF.

The longer the maceration and/or cold soak / stabulation, the more aroma precursors are extracted.

GOAL

INTENSE,

COMPLEX

PROFIL

GOAL LIGHT, FLORAL PROFILE

2

VIALATTE FERM[®] W58

A combination of *S. cerevisiae* and *S. uvarum* that enhances the **aromatic expression of terpenic grape varieties** by producing fresh, floral aromatic profiles.

S. uvarum ferments best at low temperatures. Preferably start AF at 12°C and work in stages until you reach 18°C, the preferred temperature for S. cerevisiae.

NUTRICELL® AA -

Nutrient made from specific yeast derivatives rich in amino acids, to promote aroma production.

VIAZYM® AROMA

A concentrated preparation with glycosidase activities that participates in the clarification of wines and enables the release of terpene precursors during the ageing phase. ELECTRA® -

Activated calcium bentonite used to eliminate **enzymes** and stop enzyme reactions.



C19 Yseo® LEVUL0006 Association of two yeast strains whose synergy guarantees fermentation safety and reveals Thiols Mineral I ow to LEVULINE 500 g Fast 18-30°C Low to average 15% N/A terpenes average Synergie® LEVUL0020 aromas in white and rosé wines

NA: data not available

LEVULINE ALS®

LEVULINE C19 YSEO®









LEVULINE SYNERGIE®



Grapeworks T: +61 3 9555 5500 E: info@grapeworks.com.au W: grapeworks.com.au

Contributes to the development of a clearer and more intense AROMATIC PROFILE







Allows for a REDUCTION

IN SO₂ DOSES

WIDE SPECTRUM OF ACTION on undesirable microorganisms

A 100% NATURAL AND PLANT-BASED BIOCONTROL TOOL.

FA



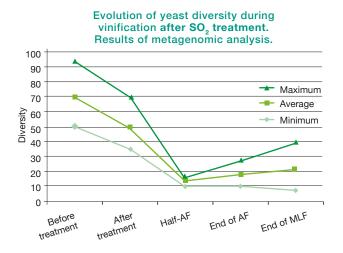
Can be used in COLD PRE-FERMENTARY MACERATION, STABULATION and CO-INOCULATION

LIMITS CONTAMINATION by Brettanomyces bruxellensis

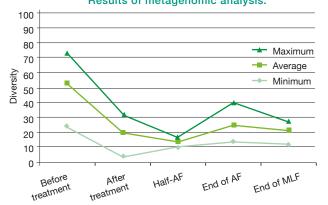
NEW METHOD OF ANALYSIS OF MICROBIAL DIVERSITY

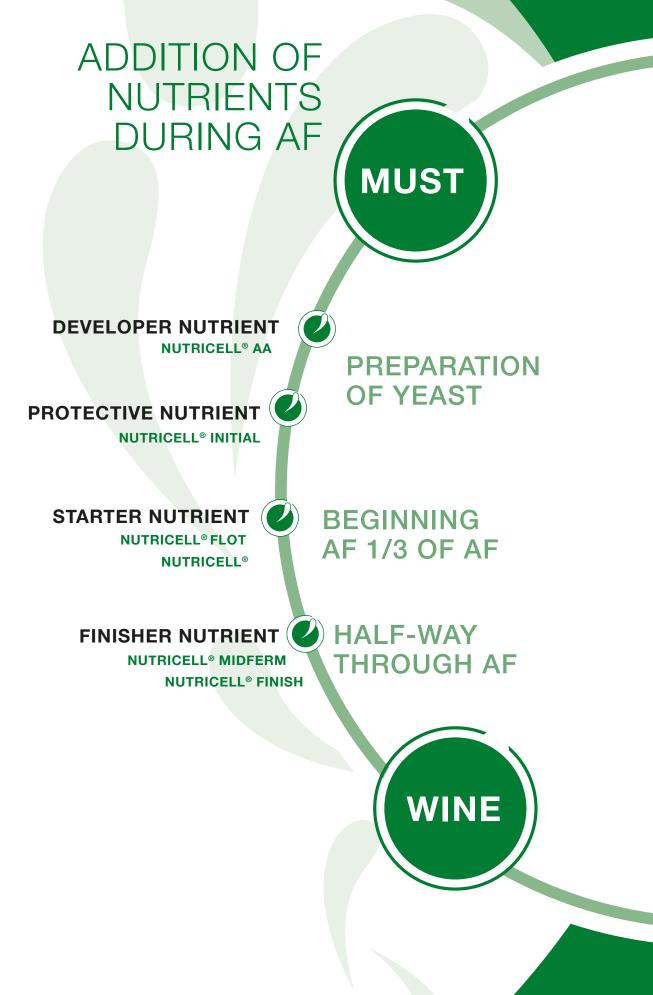
TARGETED METAGENOMICS is a technique for sequencing and analysing the DNA of several individuals of different species contained in a medium. It provides information on the species composition, abundance and diversity. This technique consists of targeting a single gene in the genome and sequencing only that gene. It must then be common to the group of species that we are trying to identify, while presenting regions that are sufficiently variable from one species to another in order to discriminate between them. Its use allowed us to evaluate the **biodiversity of the microbial ecosystem of the must**. Thanks to the development of the **application of this technology in oenology**, we were able to validate the effectiveness of KTS[®] FA as a biocontrol tool for the microbial flora and as a **alternative to SO**₂.

KTS® FA REDUCES YEAST-LIKE MICROBIAL SPOILAGE DIVERSITY AS EFFECTIVELY AS SO,.



Evolution of yeast diversity during vinification after treatment with KTS[®] FA. Results of metagenomic analysis.





NUTRIENTS

CHOOSE GOOD NUTRITION* ACCORDING TO THE YEAST AND MUST NITROGEN DEFICIENCY

WHITE AND ROSÉ WINES

		50° pHight	VIA ATE FEAST WY	WARTERN W	A VAATLEBN RT
	Aromatic Category	Esters / Thiols	Finesse / Elegance	Thiols	Esters / Rosés
CHARACTERISTICS OF MUST / QUANTITY OF NITROGEN	Nitrogen requirements Moment of nitrogen supply	High	Low	Low	High
	preparation of yeast	NUTRICELL®AA		NUTRICELL® AA	
LOW AVAILABLE N DEFICIENCY 140 -180 mg/L	beginning AF - 1/3 of AF	NUTRICELL® START			NUTRICELL [®] START
	from mid-AF				
	preparation of yeast	NUTRICELL [®] AA	NUTRICELL® INITIAL	NUTRICELL® AA	
AVERAGE AVAILABLE N DEFICIENCY 80 - 140 mg/L	beginning AF - 1/3 of AF	NUTRICELL® START			NUTRICELL® START
	from mid-AF	NUTRICELL® FINISH			NUTRICELL [®] FINISH
	preparation of yeast	NUTRICELL [®] AA	NUTRICELL® INITIAL	NUTRICELL® AA	NUTRICELL [®] INITIAL
MAJOR AVAILABLE N DEFICIENCY < 80 mg/L	beginning AF - 1/3 of AF	NUTRICELL® START	NUTRICELL [®] START	NUTRICELL [®] START	NUTRICELL [®] START
	from mid-AF	NUTRICELL [®] MIDFERM			NUTRICELL [®] MIDFERM

*For an addition of 20 g/hL of nutrients

NUTRICELL[®] AA should systematically be used during yeast inoculation in the event of a deficiency if a thiol profile is desired, so as not to inhibit the expression of aromatic precursors.

If fermentation aromas are required, NUTRICELL® FULLAROM is strongly recommended during yeast inoculation in order to increase the production of aromas when conditions are not too restrictive.

 Under more difficult conditions, NUTRICELL® AA and NUTRICELL® FULLAROM may be replaced by NUTRICELL® INITIAL in order to increase protection of yeasts, thanks to the supply of survival factors.

In the event of major deficiency, it is advisable to increase the average recommended dose of NUTRICELL® START in order to provide the yeast with a sufficient concentration of available nitrogen.

PROTECTIVE NUTRIENT NUTRICELL® INITIAL

NUTRICELL® INITIAL is a nutrient rich in amino acids, vitamins, minerals and more particularly in survival factors. It is recommended for optimizing yeast performance under difficult conditions. NUTRICELL[®] INITIAL improves fermentations and the organoleptic qualities of wine by limiting negative compounds such as volatile acidity and H.S.

Application rate: 20 to 40 g/hL Packaging: 1 kg



NUTRIENTS

DEVELOPER NUTRIENT

NUTRICELL® AA

NUTRICELL® AA 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.

Application rate: 20 to 40 g/hL Packaging: 1 kg

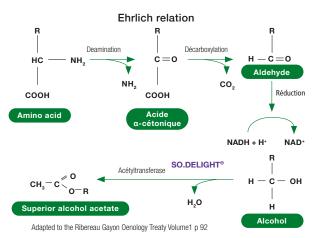




NUTRICELL[®] AA: impact on esters

• During alcoholic fermentation, yeast produces esters with fruit and flower odors.

• These esters are produced from superior quality alcohols which are produced from amino acids (Ehrlich reaction).



 NUTRICELL[®] AA provide amino acid precursors from superior alcohol to the must. Choosing a yeast with acetyltransferase activity enables superior alcohol to be transformed into superior alcohol acetates with pleasant fruit and flower odors.

STARTER NUTRIENT NUTRICELL[®] FLOT

NUTRICELL® FLOT is a complex nutrient, without a source of mineral nitrogen, specifically formulated for flotation of white and rosé musts, for optimum initiation of alcoholic fermentation. Added during racking of the tank, before yeast inoculation, **NUTRICELL® FLOT** guarantees good yeast growth at the start of AF and offsets deficiencies in solid matter in musts that are too clear at the end of flotation (turbidity < 50 NTU).

Application rate: 20 to 60 g/hL Packaging: 10 kg





NUTRICELL® START

NUTRICELL® START is a complex nutrient, without sulphates, recommended for activating alcoholic fermentation. Added to yeasting, it provides the elements necessary for ensuring complete yeast nutrition: vitamins (thiamine), minerals, mineral and nitrogen, survival factors.

Application rate: 20 to 60 g/hL Packaging: 1 kg and 10 kg



FINISHER NUTRIENT NUTRICELL®

NUTRICELL® is a complex nutrient containing the necessary nutrients for alcoholic fermentation, including thiamine, mineral nitrogen and inactive yeasts. Added to yeasting or during AF, it efficiently activates the start of AF and prevents sluggish fermentations under difficult conditions.

Application rate: 20 to 60 g/hL Packaging: 1 kg





NUTRICELL® FINISH

NUTRICELL® FINISH is a nutrient formulated on the basis of yeast autolysates and hulls. This nutrient is recommended for application during AF to prevent stuck fermentation. It detoxifies the medium and releases organic nitrogen in the form of amino acids to reactivate alcoholic fermentation.

Application rate: 20 to 40 g/hL Packaging: 1 kg





NUTRIENTS

NUTRICELL® MIDFERM

NUTRICELL® MIDFERM is a complex sulfate-free nutrient, whose use is recommended during AF to prevent or reactivate sluggish fermentation. It releases into the medium mineral and organic nitrogen to boost yeast metabolism, and yeast cell envelopes to eliminate possible inhibitors.

Application rate: 20 to 60 g/hL Packaging: 1 kg and 10 kg



SPECIFIC NUTRIENT - MLF

NUTRICELL® FML

NUTRICELL® FML is an nutrient based on yeast derivative rich in amino acids and survival factors. **NUTRICELL® FML** provides quality nutrition to lactic bacteria, reduces the latency time after inoculation of bacteria and accelerates MLF.

Application rate: 20 to 30 g/hL Packaging: 1 kg





NUTRICELL® RANGE

AVAILABLE NITROGEN for an addition of 20 g/hL



			PROTECTI	/E NUTRIENT						
WITRICELL® INITIAL	Organic nutrient for qualitative, controlled management of AF	7 mg/L		7 mg/L)	,))			
	DEVELOPER NUTRIENT									
NUTRICELL® AA	Organic nutrient for optimisation of aroma production during AF	8 mg/L		8 mg/L)					
	STARTER NUTRIENT									
NUTRICELL® START	Complex nutrient for AF activation	2.5 mg/L	23 mg/L (without sulfate)	25.5 mg/L))	•)			
NUTRICELL® FLOT	Specific nutrient for flotation	3.3 mg/L		3.3 mg/L)))))))))		
			FINISHER	NUTRIENT						
NUTRICELL®	Complex nutrient for AF activation	1.5 mg/L	26 mg/L	27.5 mg/L	J)))		
WUTRICELL® MIDFERM	Complex nutrient for good control of end AF	2 mg/L	21 mg/L (without sulfate)	23 mg/L)))			
NUTRICELL® FINISH	Complex nutrient for perfect control of end AF	6 mg/L		6 mg/L)))			
	SPECIFIC NUTRIENT									
NUTRICELL® FML	Organic nutrient for the activation of MLF	ND		ND))		

ND : not determined

MASTERING FERMENTATIONS WITH HIGH ALCOHOL CONTENT

The high concentrations of sugar sometimes found with particularly warm vintages or overripe berries can, among other things, lead to fermentation problems ranging from longer lag times to languid endings or even stuck fermentations. This is due to the fact that high sugar concentrations increase osmotic pressure on yeast cell membranes. The yeast then consumes extra energy to combat this osmotic pressure, leading to slower fermentation. It is also known that alcohol is toxic to yeast because it has an impact on the fluidity of its membranes.

The higher the concentration, the more yeast mortality will occur. The characteristics of the yeast strain that is used and the nutrition that is selected are **two important factors** in controlling and succeeding in alcoholic fermentation, especially under extreme conditions.



VIALATTE FERM® HD18

- Can initiate AF up to a sugar content of 300-310 g/L.
- Osmotolerant.
- Highly resistant to high alcohol content (18%)
- Nutritional requirements: Low



AF

CHOOSING THE RIGHT NUTRITION

NUTRICELL® INITIAL

• Rich in sterols, which are essential components of the yeast membrane that ensure its fluidity and make it resistant to alcohol since the start of AF.

• Rich in yeast hulls and amino acids for a

HALFWAY through FA

BEGINNING

of FA

END of FA **YEAST HULLS** • Rich in sterols, they provide the lipids that

balanced supply of nitrogen and lipids during

 Rich in sterols, they provide the lipids that are essential for good nitrogen assimilation at the end of AF, while helping to reduce the inhibitory charge of high alcohol content.

LIPIDS, NITROGEN AND YEAST SURVIVAL

Sterols are **lipids that make up the yeast cell** membrane. Their presence is essential for membrane resistance, which is affected by alcohol, which dissolves the fatty substances and leads to the death of the cell.

Sterols are necessary for the proper development of yeast during alcoholic fermentation. They can come from various exogenous sources and are for example naturally present in grape must in the form of phytosterols. The addition of yeast hulls during fermentation also makes it possible to provide sterols, mainly in the form of ergosterols. This improves the viability of the yeast by strengthening the cell membrane and allowing better assimilation of nitrogen. This rebalancing of the fermenting must is necessary because it has been shown that the yeast's metabolism and viability depend on the availability of nitrogen, as well as on the presence of lipids in certain pathways that regulate the assimilation of organic nitrogen.

THE IMPORTANCE OF OXYGEN

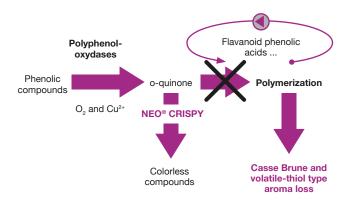
Yeast also synthesizes ergosterols in the presence of oxygen, especially at the beginning of alcoholic fermentation. It is therefore advisable to add them when the oxygen concentration reaches a limit, which is systematically the case during fermentation.

NEO® AND OPEN RANGE

Yeasts are essential for the production of wines. First of all, they bring about alcoholic fermentation, and then autolyse during maturation, enriching wines in desirable compounds and protecting them from oxidation.

MARTIN VIALATTE® has taken inspiration from nature, and has developed a range of yeast products specifically formulated to help winemakers to produce wines of constant quality, despite vintages that may vary considerably due to a lack of maturity and/or deficient sanitary conditions.

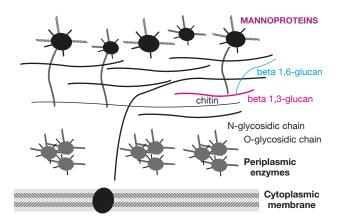
For instance, in spoiled harvests, the musts obtained are especially sensitive to oxidation and readily bind SO_2 . Without preventive or regulatory action, the phenolic compounds are oxidised to ortho-quinones. These compounds react with the phenolic acids and the flavonoids present in the wine, forming increasingly large complexes that eventually precipitate out, taking with them the aromatic compounds.



MARTIN VIALATTE® has developed **NEO® CRISPY**, a yeast product naturally rich in reducing compounds that enables wines to resist oxidation and preserve the wine's aromas. By using **NEO® CRISPY** on must just before yeast inoculation, winemakers can prevent oxidative change in their wines. In particular, it permanently blocks reactions with ortho-quinones by forming insoluble, colourless compounds. The phenolic and aromatic compounds in the wine are totally preserved, which maintains the overall quality of the wine.

For vintages lacking maturity, winemakers have to limit the harvest contact time during the alcoholic fermentation phase so as to limit the extraction of bitter polyphenols. The wines obtained are often dilute and lack volume. In this case, winemakers can use **NEO® SWEET** in order to mimic the effect of maturation on lees.

NEO® SWEET is composed of inactive yeasts that are very rich in polysaccharides, which interact with the most reactive tannins in the wine, reducing astringency while providing volume and fatness. NEO[®] SWEET has a very rapid effect: 10 days after being added, there is a significant decrease in the wine's astringency, and an increase in volume. Not only does NEO® SWEET rectify ripening defects, but it also makes it possible to very rapidly obtain a wine with the profile of a wine matured on lees (more complexity, volume and fatness). Finally, before bottling, winemakers should check their wine's colloidal stability (risk of tartaric, protein or colour precipitation, etc). Winemakers have long observed that wines matured on lees had much greater colloidal stability than racked wines kept in a vat. Since then, scientific studies have shown that the mannoproteins that make up yeast cell walls have these properties. MARTIN VIALATTE® has developed OPEN PURE and OPEN PURE FRAICHEUR® products composed of purified yeast mannoproteins that can be used to improve the colloidal stability of wines. OPEN PURE can be used for final rectification of wines before bottling by significantly reducing bitterness and providing roundness. OPEN PURE FRAICHEUR® provides roundness and helps to enhance the aromatic freshness of wines. The mannoproteins that make up OPEN PURE and OPEN PURE FRAICHEUR® are extracted from yeast hulls. What makes these products special is the purification and concentration process used, which makes it possible to recover non-denatured native mannoproteins. OPEN PURE and OPEN PURE FRAÎCHEUR® are totally soluble and can therefore be used just before bottling.



Cross-section of a yeast cell wall showing the cytoplasmic membrane that separates the interior of the yeast from its exterior wall



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 effective in protecting the aromatic and color compounds of wine. **NEO CRISPY**[®] reinforces the natural resistance of musts from oxidation.

Application rate: 15 to 30 g/hL

Packaging: 1 kg



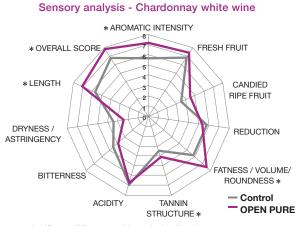


OPEN PURE

OPEN PURE is a preparation made up of purified mannoproteins from *Saccharomyces cerevisiae* yeast. **OPEN PURE** has an organoleptic effect by reducing the astringency of tannins and increasing aromatic persistence and volume in the mouth. **OPEN PURE** is totally soluble and can therefore be used just before bottling. However, it is necessary to carry out a few trial runs in order to determine the optimum dosage.

Application rate: 0.5 to 5 g/hL Packaging: 250 g





* significant difference with analysis of variance

OPEN PURE enhances volume and length in the mouth as well as aromatic intensity, without altering the profile.

NEO[®] SWEET

NEO® SWEET is a yeast product rich in parietal polysaccharides used for making light or concentrated red wines. Due to its strong reactivity with polyphenols, **NEO® SWEET** substantially reduces the perception of astringency and develops sensations of roundness and fullness sought be consumers. **NEO® SWEET** is used at the beginning of the wine-making process or later on at the end of maturing.

Application rate: 15 to 30 g/hL Packaging: 1 kg



OPEN PURE FRAÎCHEUR®

OPEN PURE FRAÎCHEUR® is a complex containing specific cellwall polysaccharides from *Saccharomyces cerevisiae* yeast and plant polysaccharides (E414). **OPEN PURE FRAÎCHEUR®** provides roundness and helps to increase the wine's aromatic freshness. With young wines, **OPEN PURE FRAÎCHEUR®** can be used to provide volume in the mouth while strengthening the aromatic potential and varietal character of the wine. With wines that are sensitive to oxidative change, **OPEN PURE FRAÎCHEUR®** provides roundness and aromatic freshness. **OPEN PURE FRAÎCHEUR®** is totally soluble and can therefore be used just before bottling.

Application rate: 0.5 to 20 g/hL Packaging: 250 g

DRYNESS / ASTRINGENCY

BITTERNESS



REDUCTION

FATNESS / VOLUME/

ROUNDNESS *

_ Control

STRUCTURE OPEN PURE

TANNIN

* significant difference with analysis of variance

ACIDITY

OPEN PURE FRAÎCHEUR[®] enhances aromatic intensity and shifts the profile to fresher aromas. It also enhances roundness and length in the mouth and reduces negati ve sensations of bitterness and astringency.

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KTS® FLOT is a next-generation product for the flotation of whites, rosés and reds resulting from thermovinification. It is composed of proteins and plant polysaccharides.

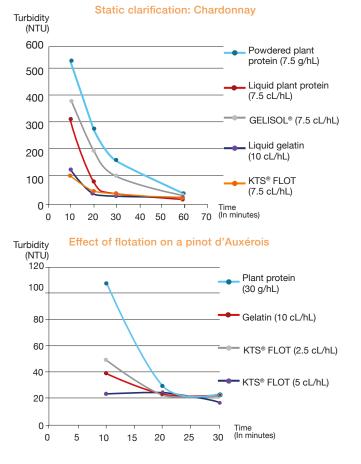
KTS® FLOT ensures fast, thorough clarification of musts with improved compaction of the cap. It also helps to protect against oxidation and refines the must before alcoholic fermentation.

Faster fining with improved compaction of deposits

- Ø Alternative to animal products
- Protection against oxidation
- Correction of bitterness and harshness
- Fining of polyphenols
- Use in static or flotation

Packaging: 5 L, 20 L and 1000 L Application rate: 5 to 15 cL/hL On all types of must and wine:





and static clarification

PROVGREEN® PURE MUST

PROVGREEN® PURE MUST is made up of 100% plant proteins. This product enables quick flocculation, clarification and treatment against oxidized polyphenols. **PROVGREEN® PURE MUST** originates from a considerable compacting of lees and is adapted to reasoned oenology.

Application rate: 15 to 50 g/hL Packaging: 1 kg, 5 kg and 10 kg





POLYGREEN

POLYGREEN is a blend of plant proteins, PVPP, bentonites and cellulose. It eliminates oxidized or oxidizable phenolic compounds of musts in addition to the brown colour and bad taste associated with oxidation. **POLYGREEN** reduces excessive astringency and participates in eliminating bitterness. **POLYGREEN** reestablishes aromas and fruitiness. The effectiveness of **POLYGREEN** is on line with caseine-based traditional products such as **POLYCASE**.

Application rate: 20 to 120 g/hL Packaging: 1 kg and 5 kg





NEW

KTS® FLOT

KTS® FLOT is a next-generation product for the flotation of whites, rosés and reds resulting from thermovinification. It is composed of proteins and plant polysaccharides. **KTS® FLOT** ensures fast, thorough clarification of musts with improved compaction of the cap. It also helps to protect against oxidation and refines the must before alcoholic fermentation. **KTS® FLOT** erases bitter and vegetable notes without decharacterising the wines, and also contributes to the protection against oxidation. Easy to use liquid plug and play product.

Application rate: 5 to 15 cL/hL Packaging: 5 L, 20 L and 1000 L



PROVGREEN® SMOKE TAINTS

PROVGREEN® SMOKE TAINTS an animal-free fining agent, is an effective solution for treating musts or fermenting wines contaminated by smoke from fires located near vineyards. Developed to remove the compounds that cause smoke taint, **PROVGREEN® SMOKE TAINTS** reduces the masking effect produced by smoke taint and restores the wine's fruitiness and freshness. des vins. It can be used on musts or on fermenting wines for clarification and fining, and is suitable for the production of vegan wines.

Application rate: 40 to 100 g/hL depending on the level of spoilage. Maximum legal dose (EU): 100 g/hL. A few prior trials should be carried out in order to determine the optimum dosage. Packaging: 5 kg





PV POUDRE LGV

Pea proteins for the clarification and treatment of musts against oxidation.

Application rate: 10 to 20 g/hL Packaging: 20 L





PVPP

Treatment of maderisation and browning of white wines. Reduction of bitterness, improved freshness and aroma in reds.

Packaging: 1 kg





Application rate: 10 to 50 g/hL Packaging: 5 kg

ORIGIN FRESH

ORIGIN FRESH is a new-generation fining product. It is made from PVI/PVP, enabling it to target and eliminate disruptive components in the must (heavy metals, oxidised/oxidisable polyphenols and quinones) and to preserve its potential. The presence of specific LSIs rich in reducing elements provides additional protection by

derivative ensures better longevity for wines.

acting as a buffer in redox mechanisms. The synergy

of action between this copolymer and this specific yeast



FINING OF MUSTS

ORIGIN SH

ORIGIN SH is a next-generation fining agent designed to limit the risk of thiol breakdown. It is made up of various active materials that act in synergy to preserve the aromatic potential of grapes, especially in varieties rich in thiol precursors. **ORIGIN SH** binds heavy metals. Their detrimental action on wine aromas is thus severely limited, enabling optimum expression of the grapes' aromatic potential. Moreover, **ORIGIN SH** protects wine aromas from oxidation by releasing reducing compounds. It also brings about selective reactions with polyphenols, precipitating them out before they can oxidize and cause oxidasic casse.

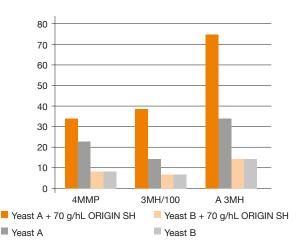
Application rate: 30 to 70 g/hL







Effect of **ORIGIN SH** on thiol concentrations in a white Sauvignon (Bordeaux), with a thiol yeast (Yeast A) and a neutral yeast (Yeast B)



A combination of **VIALATTE FERM® W28** and **ORIGIN SH** is ideal for optimizing thiol concentrations in wines. It is also recommended to use an organic nutrient such as **NUTRICELL® AA**.

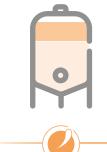
RANGE OF FINING AGENTS FOR MUSTS

PRODUCTS	PROPERTIES	TYPE OF WINE	APPLICATION RATE					
PROVGREEN® PURE MUST	Non allergenic, clarification, elimination of oxidizable and oxidized polyphenols	ward work	15 to 50 g/hL					
PVPP	Preventive and curative treatment of musts against oxidation	with the second s	20 to 80 g/hL					
POLYGREEN	Non allergenic complex for elimination of oxidized and oxidizable polyphenols, bitterness, compacting of lees	wire)	20 to 120 g/hL					
ORIGIN SH	Protects primary thiol aromas against oxidative degradation	utita	30 to 70 g/hL					
ORIGIN FRESH	Targets and eliminates disruptive elements in the must (heavy metals, oxidised/oxidisable polyphenols and quinones)	wardy weedy	10 to 50 g/hL					
PROVGREEN® SMOKE TAINTS	Reduces the masking effect produced by smoke taint and restores the wine's fruitiness and freshness	with	20 to 100 g/hL					
COLLAGE OF PLANT ORIGIN								
PV POUDRE LGV	Preventive and curative treatment of musts against oxidation	wyrrd aced	10 to 20 g/hL					
KTS® FLOT	Non-allergenic, clarification by flotation, compaction of the cap of must deposits	with	5 to 15 cL/hL					



PRODUCING A MODERN ROSÉ WINE

Rosé winemaking has undergone a constant evolution over the last 20 years, in search of the most fashionable colour and the most expressive aromas to offer the market the «Rosé de Provence» style, easy to drink, with a pale colour and an intense aromatic profile. Winemakers who wish to produce this style of wine must take into account that rosé winemaking is highly dependent on the oxidation mechanisms that occur during the pre-fermentation phase, as they directly affect the compounds responsible for colour and aroma. Managing oxidation means protecting the must by controlling it at all stages of the process. After 30 years of experience in Provence with 15 oenologists and over 500 winegrowers, including some of the most iconic brands, MARTIN VIALATTE® has built up solid expertise in rosé vinification and offers a Provence kit that provides an easy solution to maximize the potential of your grapes.



FLOTATION OF MUST

A synergistic combination of plant proteins and chitin derivatives, KTS® FLOT ensures fast and complete settling of the must with improved cap compaction during flotation. It also protect helps against oxidation by acting on the phenolic acids, and reduces any yellowish tinge in the must prior to alcoholic fermentation.

PROTECTING THE MUST AND THE PRIMARY AROMAS

ORIGIN FRESH is a fining product that detoxifies the medium by eliminating heavv metals. and completely fining must by fixing and precipitating phenolic acids and quinones. protects It aromas against oxidation and ensures their longevity.

NUTRICELL® AA is nutrient made exclusively from specific yeast derivatives rich in amino acids. It enables the successful management of alcoholic fermentation and optimizes the wine's aromatic profile by promoting the higher production of esters and higher alcohol (derived acetates from amino acid degradation). It also promotes expression of thiols the by helping to assimilate thiol precursors and to activate the production of b-lyase by the yeast.

NUTRITION

ALCOHOLIC FERMENTATION

SO.DELIGHT[®] is *S. cerevisiae* yeast selected for its ability to produce aromatic white and rosé wines with a fresh, fruity style. The resulting aromatic profile is complex, with varietal thiol and fermentation notes.

ENZYMES

AROMATIC INTENSITY

VIAZYM[®] MP

VIAZYM® MP is a special preparation used for optimizing skin maceration while improving pressing, settling and thus the quality of musts coming from skin maceration. This enzyme likewise optimizes pressing and increases juice yield. **VIAZYM® MP** results in improved clarification of musts and fast settling. This increases the extraction of aromatic precursors during skin maceration and releases glycosylated aromas.

Application rate: 1 to 4/100 kg Packaging: 100 g





VIAZYM[®] AROMA

Based on its specific composition, **VIAZYM® AROMA** improves wine quality, enhances clarification of musts, facilitates subsequent filtration of wine and increases varietal aroma by releasing aromatic terpenes (terpenic glycosides) from naturally occurring precursors in the must.

Application rate: 2 to 5 g/hL Packaging: 100 g





EXTRACTION VIAZYM® EXTRACT PREMIUM

VIAZYM® EXTRACT PREMIUM is a pectinase preparation containing a large array of complementary activities. Based on its specific composition in secondary activities (protease acid), VIAZYM® EXTRACT PREMIUM participates in breaking down proteins in view of preventing the precipitation of coloring matter. Wines obtained are more complex, very colorful with a tannic structure which together give rise to good ageing potential. This preparation is to be used on high polyphenolic potential vine varieties or those requiring fast extraction of tannins for faster colour stabilization or on high potential harvests in long maceration in view of producing wines to be aged, either on partially altered harvests in order to quickly extract tannins and colour.

Application rate: 2 to 3 g/100 kg Packaging: 100 g





CLARIFICATION

VIAZYM[®] CLARIF PLUS

VIAZYM® CLARIF PLUS is a special preparation for fast and efficient clarification of pectin-rich musts.

Application rate: 1 to 2 g/hL Packaging: 100 g





SPECIALTIES

VIAZYM[®] FLUX

VIAZYM[®] FLUX is a liquid pectinase and β-glucanase concentrated enzyme. It breakdowns pectins and glucanes. **VIAZYM[®] FLUX** helps static clarification of raw wine and improves prior to bottling filterability. **VIAZYM[®] FLUX** is at the origin of media filter savings.

Application rate: 3 to 5 mL/hL Packaging: 1 L and 10 L





VIAZYM® FLOT

VIAZYM® FLOT is a liquid pectolytic enzyme preparation used for the flotation of musts. It promotes the rising of the very compacted suspension deposit cap.

Application rate: 2 to 4 mL/hL Packaging: 1 L





VIAZYM[®] ROUGE

Micro-granulated enzyme, **VIAZYM® ROUGE** breaks down pectins and clarifies more quickly. This enzyme develops the colour and fruitiness of red wines. **VIAZYM® ROUGE** participates in reducing vegetal notes.

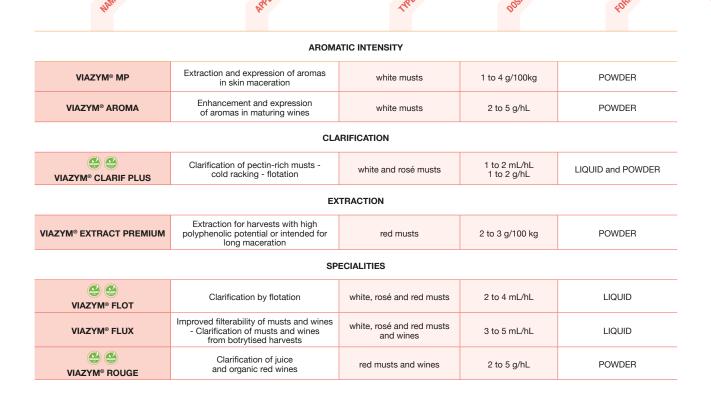
Application rate: 2 to 5 g/hL Packaging: 100 g





ENZYMES

VIAZYM® PRODUCT RANGE



HANDLING BOTRYTIS

The climatic conditions of the vintage can have disastrous consequences for the health and quality of the grapes. Rainfall has a diluting effect on the phenolic composition of the berries, sometimes even forcing the harvest to be done earlier and resulting in grapes that lack maturity. The pressure of diseases such as *Botrytis* is multiplied, and organoleptic deviations

are added to the imbalances of the must. There are several oenological

solutions to these problems.

MARTIN VIALATTE®'S TOOLBOX FOR SOLVING BOTRYTIS PROBLEMS.

ELIMINATING NEGATIVE AROMATIC COMPOUNDS IN THE MUST

Botrytis contamination results in a characteristically musty, earthy taste.

• NOIR CAPTIVA, highly adsorbent powdered carbon that can be used to deodorise and decontaminate musts.

• **KTS**[®] **CLEAR**, a chitin-glucan based fining agent that combines a clarifying effect with the elimination of unpleasant tastes.

SUCCEEDING IN THE KEY STAGE OF EXTRACTION

Short maceration is possible, but some precautions need to be taken.

 With red musts, short maceration is an option but it can lead to colour instability. The use of tannins such as SUBLITAN[®] VINIF is therefore essential. Its ellagic, proanthocyanic and gallic tannins protect colouring matter by copigmentation.



The wines obtained may still be marred by various imbalances and contain undesirable molecules.

• SUBLIPROTECT[®] is a grape tannin and inactivated dry yeast complex. Adding it to red wines at the end of AF protects aromas from oxidation and increases the sensations of roundness and structure.

 VIAZYM[®] FLUX is a liquid enzyme concentrate with pectinases and β-glucanases. It is very useful for degrading glucans in botrytised grapes and thus improving the filterability of wines.

The importance of glucanases

It is important not to wait for filtration, but to use glucanases as soon as fermentation (AF and MLF) is finished because the temperature of the medium is still optimal for their activity.

PROTECTING THE MUST AGAINST OXIDATION

Botrytis causes the must to become more sensitive to oxidation by releasing laccases.

• **TANIGAL** is a powerful gallnut tannin against antioxidation. It binds the laccases present in the musts and facilitates their elimination.

• **ORIGIN FRESH** is a PVP/PVI-based fining product with properties that help chelate heavy metals and adsorb acids, thus protecting the must from oxidation and preserving the intensity and longevity of fresh aromas.

BACTERIA

REFLEX MALO® 360

REFLEX MALO® 360 is an *Oenococcus oeni* bacterium selected to carry out malolactic fermentation of red and white wines in limiting conditions (low pH, high alcohol content, difficult grape varieties, etc). **REFLEX MALO® 360** is a bacterium ready for use, and is suitable both for co-inoculation and for post fermentation inoculation.

Packaging: Dose for 25 hL and 250 hL





REFLEX MALO® HD

A strain of lactic acid bacteria for inoculating wines with high alcohol content, **REFLEX MALO® HD** is a freezedried starter culture of *Oenococcus oeni*. This strain of lactic acid bacteria for malolactic fermentation was selected for its ability to trigger MLF in conditions of high alcohol content and on tannic red wines. It makes a positive contribution to the aromatic profile of the wine, enhancing the fruity, intense notes.

Packaging: Dose for 25 hL and 250 hL



REFLEX MALO® PH

A strain of lactic acid bacteria for inoculating wines with a low pH, **REFLEX MALO® PH** is a freeze-dried starter culture of *Oenococcus oeni*. This strain of lactic acid bacteria was selected for its ability to trigger MLF under conditions of low pH (\geq 3.0) or high acidity. It makes a positive contribution to the aromatic profile of the wine, enhancing fruity, floral notes.

Packaging: Dose for 25 hL and 250 hL





VITILACTIC® STARTER BL01

VITILACTIC[®] STARTER BL01 is a lactic bacteria strain selected in Champagne Ardennes for carrying out malolactic fermentation on very acidic white wine. VITILACTIC[®] STARTER BL01 likewise contributes to producing white wine of great finesse in due respect with the typical character of vine varieties. Implementation requires prior acclimatization (starter culture).

Packaging: Sachets of 25 g and 100 g



VITILACTIC® F

VITILACTIC® F is a direct pitching lactic bacteria selected by IFV in Beaune for its remarkable fermentation and organoleptic properties (colour preserved at low temperatures for red and rosé wines, dominant fruity expression, increased roundness) perfectly suited for quality wines, whether primeurs or wines for ageing.

Packaging: Dose to 2.5 hL, 25 hL and 100 hL



Hant	PACIAGENE	THE	ALONO	Ho	502150	or month	aneauth thore a	50 MROOT	Diagnost Diagnost	100 SUSAN PROFILE
REFLEX MALO® 360	25 hL / 250 hL	Direct inoculation	<16 %	> 3.2	< 50 mg/L / < 10 mg/L	17° to 25°C))))))	Low to average	Respect of typical varietal character
Contraction Contra	25 hL / 250 hL	Oenococcus oeni	≤ 17%	≥ 3.2	< 60 mg/L < 10 mg/L	17° to 25°C	ווו	J	Low to average	Fruity, intense notes
Contraction Contra	25 hL / 250 hL	Oenococcus oeni	≤ 14%	≥ 3	< 60 mg/L < 10 mg/L	18° to 22°C	ווו))	Low to average	Fruity, floral notes
VITILACTIC® STARTER BL01	25 g / 100 g / 500 g	Pied de cuve	< 14 %	> 2.9	< 70 mg/L / < 10 mg/L	> 18°C and < 25°C))))))	Very Low	Neutral, respect of aromatic finesse
VITILACTIC® F	2.5 hL / 25 hL 100 hL / 250 hL	Direct inoculation	< 15 %	> 3.2	< 50 mg/L / < 10 mg/L	≥ 16°C	ווו	ווו	Low to average	Round, fruity wines

BACTERIA

INTEREST OF CO-INOCULATION

Different pitching methods:

The timing of inoculation is a real oenological choice in the winemaking process, along with the choice of bacteria. Bacteria can be applied during, after the end of AF or even several months after the end of AF.

Co-inoculation refers to an inoculation 24 to 48 hours after yeasting. Early inoculation refers to an inoculation between midway and 2/3 way of AF. Pitching at the end of AF is some most traditional practice called sequential inoculation. In the case of later inoculation, it is referred to as an offset inoculation.

For the last 12 years, co-inoculation and early inoculation are the most widespread practices used for different reasons including:

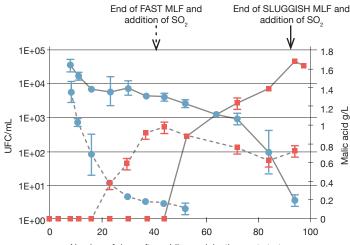
- Time savings with regard to wine-making (co-inoculation)
- Better guarantee of implanting bacteria

- Limit risk of contamination by undesirable microorganisms (lactobacillus, brettanomyces ...)
- Maintains the aromatic freshness of the wine by early stabilisation and by limiting the production of diacetyl.
- These inoculation practices are particularly interesting for the following applications:
- Optimization of work in the wine cellar (time saver / heating energy savings /better winery rotation / reduction of stress related to carrying out malolactic fermentation)
- Optimization of organoleptic qualities of wine (limit contaminations, oxidation, increased aromatic freshness)
- Carry out MLF under difficult conditions

MARTIN VIALATTE® can be used in co-inoculation, early, sequential or offset inoculation.

INFLUENCE OF CARRYING OUT MLF ON THE GROWTH OF *BRETTANOMYCES*

Source: Renouf V., 2006, Doctoral thesis, INP of Toulouse

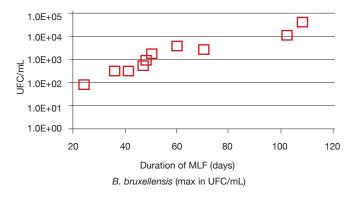


Number of days after adding malolactic yeast starters

Comparison of the evolution of population of *B. bruxellensis* ■ in malic acid ● in fast MLF (...) and slow (-) of Merlot vinified in 2004 at the VI estate.

On wine presenting a risk of contamination, in case of fast MLF, early sulphiting can be carried out to strongly limit the development of brettanomyces. When MLF is badly managed, *brettanomyces* develop and reach large populations, which may cause irreversible damage.

This studies shows that the concentration of *brettanomyces* is directly proportional to the duration of MLF, thus the interest in using selected lactic bacteria, possibly in co-inoculation, to accelerate the carrying out of malolactic fermentation.



VINIFICATION TANNINS

SUBLIWHITE®

SUBLIWHITE[®] is a blend of grape tannins selected for their antioxidant character and yeast derivatives. Experiments carried out over several years have enabled to develop **SUBLIWHITE**[®], a product adapted to white wine-making. **SUBLIWHITE**[®] preserves the yellow-green colour 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.

Application rate: 5 to 15 g/hL

Packaging: 1 kg





SUBLIRED®

A preparation of proanthocyanidic tannins, **SUBLIRED**[®] was specifically developed for the preservation and enhancement of fruity-type aromas. A premium tannin, **SUBLIRED**[®] can be used for the production of modern, fruity, supple wines.

Application rate: 2 to 15 g/hL

Packaging: 1 kg





SUBLISTAB®

SUBLISTAB[®] is a blend of ellagiques and proanthocyanidiques tanins weakly polymerized, **SUBLISTAB**[®] was specifically developed for protecting and definitively stabilizing wine colour. This is a top choice tannin for thermo-vinification type procedures.

Application rate: 10 to 40 g/hL

Packaging: 1 kg





TANIXEL®

TANIXEL[®] is a pure chestnut tannin, which can be added during the wine-making phase but also during the ageing phase of red wine. **TANIXEL**[®] protects colour and participates in the organoleptic balance of red wines by providing structure while reacting strongly to must and wine proteins.

Application rate: 5 to 50 g/hL

Packaging: 1 kg and 12,5 kg granulated





TANNINS PRODUCT RANGE

The botanic origin of tannins (gall nut, chestnut, oak, grape, etc. tannins) in addition to the physico-chemical properties associated with these tannins (anti-free radical, reaction with proteins, co-pigmentation, oxidative protection, etc.) have enabled us to develop a complete tannin product range which may be used in accordance with the quality of the harvest and also based on the product objective the client has set.

This product range is two-fold:

• Vinification tannins: These tannins enable the early correcting of harvests in view of guaranteeing the homogenous quality of wine from one vintage to the next.

• Ageing tannins: These tannins are used to refine wine in order to meet the objective for the product the client has set.

These tannins will improve the structure of red, rosé and white wines which have different polyphenolic characteristics:

Red wines: Characterized by a significant presence of polyphenols (tannins and anthocynins) which may be more or less mature depending on vintage. In addition, anthocyanins responsible for color must be protected and stabilized.

> White and rosé wines: Characterized by a slight presence of polyphenols which make the wines sensitive to oxidation and change.

VITANIL[®] B

VITANIL[®] B is made up of tannins from tara pods (a leguminous tree found in South America). It is a gallotannin extracted with alcohol, and is perfectly suited for fining white wines. On must, VITANIL[®] B plays a role in racking and clarification by reacting with excess proteins. It eliminates, among other substances, natural grape oxidases (tyrosinase and laccase secreted by *Botrytis*).

Application rate: on must: 10 to 20 g/hL on wine: 2 to 10 g/hL

Packaging: 1 kg





VITANIL® VR

VITANIL® VR is essentially made up of proanthocyanidintype condensed tannins. **VITANIL® VR** acts in synergy with wine tannins to provide optimum stabilization of coloring matter. It protects anthocyanins from oxidation.

Application rate: <u>on harvest</u>: 15 to 25 g/100 kg <u>on must</u>: 10 to 20 g/hL <u>on wine</u>: 5 to 10 g/hL

Packaging: 1 kg



SUBLITAN® VINIF

SUBLITAN® VINIF promotes the clarification and stabilization of red wine. It participates in making livelier colored red wine, less oxidized and more balanced. **SUBLITAN® VINIF** has antioxidant capacity and protects the coloring matter by co-pigmentation and against reduction flavors.

Application rate: 10 to 40 g/hL Packaging: 1 kg



Walt		Photosites	Statisation	BOM AND TASE
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Image: Construction of the second sec	RED C))))
SUBLITAN® VINIF	RED C)))))
SUBLIWHITE®)))))
SUBLISTAB®	REP))))))
SUBLIRED®)))))

AGEING TANNINS TANIRAISIN

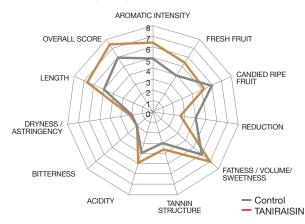
Due to its specific production method, **TANIRAISIN** conserves the natural properties of grape skin tannins selected for their quality. As such, these highly reactive tannins will interact with other macromolecules found in wine. These multiple interactions have a positive impact on wine. **TANIRAISIN** has a clarification role (ideal supplement for fining). It promotes the stabilization of colour (by forming tannin-anthocyanin stable complexes) and improves the organoleptic balance. **TANIRAISIN** likewise has a reinforced protective action against oxidation (antioxidant effect of polyphenols).

Application rate: on harvest: 10 to 30 g/100 kg on must: 5 to 15 g/hL on wine: 3 to 20 g/hL

Packaging: 500 g



Sensory analysis - Cinsault rosé wine



TANIRAISIN enhances aromatic sharpness and intensity, refreshes aromas and improves balance in the mouth.

NEW

TANIN VINIF LGV

TANIN VINIF LGV is a combination of condensed tannins, of the proanthocyanidic type, with a structure very similar to that of grape tannins, and ellagitannins, which are highly reactive with proteins. These tannins act very effectively against grape oxidases. **TANIN VINIF LGV** protects against oxidation and protects the anthocyanins by copigmentation.

Application rate: <u>on harvest</u>: 15 to 25 g/100 kg <u>on must</u>: 10 to 20 g/hL <u>on wine</u>: 5 to 10 g/hL





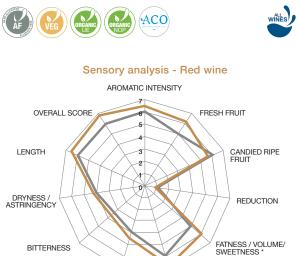


TANIPEPIN

TANIPEPIN is a pure grape seed tannin adapted to red wine-making. By its very nature, it is efficient for promoting «tannin-anthocyanin» complexes thus enabling the good stabilization of the colour of red wines. Presented in granulated form it facilitates and improves its implementation in the wine cellar. In addition **TANIPEPIN** improves the antioxidant capacity and the good evolution of wine. It reinforces wine balance by providing a supplement to the tannin structure while limiting oxidase action. **TANIPEPIN** participates in the protein stability of white and rosé wines.

Application rate: on harvest: 5 to 15 g/100 kg on must: 5 to 10 g/hL on wine: 1 to 15 g/hL

Packaging: 500 g



* : significant difference with analysis of variance

ACIDITY

On this red wine, **TANIPEPIN** enhances aromatic intensity especially with regard to fresh fruits, and also improves perception in the mouth with significantly more roundness in the mouth and tannin structure as well as length in the mouth. Wines to which **TANIPEPIN** was added obtained a better score than the control wine.

TANNIN STRUCTURE *

SUBLI'OAK®

SUBLI'OAK® reveals the potential of red, white and sweet wines. **SUBLI'OAK®** develops the aromatic complexity and fruit notes while providing roundness, volume and structure. **SUBLI'OAK®** reveals vanilla and subtle roasting notes and removes the vegetal and bitter character. **SUBLI'OAK®** provides freshness.

Application rate: 1 to 30 g/hL Packaging: 500 g





SUBLIPROTECT®

SUBLIPROTECT[®] is a complex of grape tannins and inactive dry yeasts. This tannin contributes to balance in the mouth and a feeling of freshness. It prepares wines for maturation in barrels. **SUBLIPROTECT**[®] strengthens resistance to oxidation and preserves redox potential.

Application rate: 5 to 20 g/hL Packaging: 1 kg





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GG GG TANIN VINIF LGV	RED))))))
Ge Ge SUBLI'OAK®	wite)))))
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C C TANIRAISIN	Whee)))))))
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- Control

- TANIPÉPIN

COLOUR STABILISATION OF RED WINES

The organoleptic quality of red wine is not only in its aromas or tannic structure. **Colour is also an important parameter for the consumer**. The quality of colouring matter varies because it **depends on the polyphenolic potential of the grape variety being vinified**, as well as **environmental factors** (weather and sanitary conditions of the vintage, maturity of the grapes) and the **extraction process that is used**. Protecting the colour obtained and stabilising it to **ensure its longevity** is oenologically crucial. Several tools can be used to achieve these goals, depending on the stage of the oenological process at which you wish to take action.

TANNINS

Tannins have different oenological properties depending on their chemical structure and origin. **Proanthocyanidic tannins from exotic woods** like quebracho can protect the colour by limiting the oxidative degradation of the colour - this is **co-pigmentation**; whereas **proanthocyanidic tannins** from **grapes** form covalent bonds with anthocyanins - this is **colour stabilisation**.

OXYGEN

The controlled addition of oxygen is complementary to the use of grape tannins for colour stabilisation. It results in the oxidation of polyphenols (tannins) to quinone, generating a hydrogen peroxide molecule (H_2O_2) . This will oxidise an alcohol molecule to an ethanal molecule, which will then be fixed by the tannins to form **ethanal bridges**. These bridges will promote covalent bonds with the anthocyanins, resulting in **colour stabilisation**.

YEAST DERIVATIVES

Yeast products are naturally rich in reducing peptides. These molecules block the oxidation of phenolic compounds to ortho-quinones and form stable, insoluble, colourless compounds.

TANIXEL®

- Chestnut ellagic tannins,
 Highly reactive with must protein and polyphenol oxidases, thus enabling colour protection.
- Strong ability to consume dissolved oxygen and maintain a high redox potential.

VITANIL[®] VR

Proanthocyanidic tannins,
Protects against the precipitation of anthocyanin / colouring matter by co-pigmentation.

1 ALCOHOLIC PRE-FERMENTATION

SUBLISTAB®

 Mixture of ellagic and proanthocyanidic tannins,
 Protects and permanently stabilises by binding with anthocyanins,
 Maintains optimum redox potential.

 Maintains optimum redox potential.

• OENO₂ • Customised O₂ dose (mgL/L).

• The use of micro-oxygenation at the end of AF allows to favour the stabilisation of the colour by targeting the formation of ethanal. ALCOHOLIC FERMENTATION

PRE-FML

TANIPEPIN

- Proanthocyanidic tannins from grape seeds,
 Ideal for musts with unbalanced tannin/anthocyanin ratios,
- Permanently stabilises colour.

NEO® CRISPY

- Yeast product rich in reducing peptides,
- Protects aromatic compounds and colour against oxidation.

SIMILIOAK[®]

SIMILIOAK[®] WHITE

Goal: to protect aromas during fermentation. With a hint of vanilla, this blend develops floral notes while enhancing volume in the mouth.

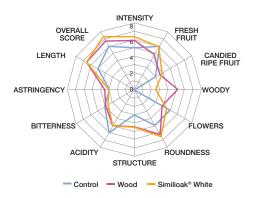
Application rate: 0.05 to 0.2 g/L

Packaging: 500 g





Tasting of a Chardonnay white wine with the addition of fresh wood at 1 g/L or addition of SIMILIOAK[®] WHITE at 0.075 g/L



SIMILIOAK[®] WHITE provides a sensory profile very close to that of fresh wood: more aromatic intensity, more roundness and structure, less acidity and more length in the mouth. Moreover, SIMILIOAK[®] WHITE better respects the wine's aromas and preserves the freshness of the fruit while developing faint woody notes. The SIMILIOAK[®] WHITE method is the one preferred by the jury.

SIMILIOAK[®]

Goal: this blend was specifically developed for alcoholic fermentation in order to stabilise coloring matter and mask vegetal character. **SIMILIOAK**[®] is a practical 'tool' to be used directly on the harvest.

Application rate: 0.2 to 0.6 g/L Packaging: 500 g and 5 kg



SIMILIOAK® TOASTED

Goal: SIMILIOAK® TOASTED is a blend developed in order to mask vegetal character, increase volume in the mouth and provide warm, roasted notes.



KTS® RANGE

Fining agents formulated from chitin derivatives

KTS® CLEAR

KTS® CLEAR is a preparation based on chitin-glucan, developed for the clarification of wines and the elimination of unpleasant tastes such as strong reductions, animal and pharmaceutical notes, etc. Racking is necessary after settling in order to avoid release of absorbed compounds.

Application rate: 5 to 40 g/hL

Packaging: 1 kg



KTS[®] FLOT

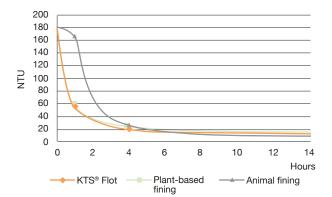
KTS® FLOT is a next-generation product for the flotation of whites, rosés and reds resulting from thermovinification. It is composed of proteins and plant polysaccharides. **KTS® FLOT** ensures fast, thorough clarification of musts with improved compaction of the cap. It also helps to protect against oxidation and refines the must before alcoholic fermentation. **KTS® FLOT** erases bitter and vegetable notes without decharacterising the wines, and also contributes to the protection against oxidation. Easy to use liquid plug and play product.

Application rate: 5 to 15 cL/hL Packaging: 5 L, 20 L and 1000 L





Evolution of turbidity in red grenache wines. Comparative fining test - 2019 vintage.



KTS[®] FA

KTS® FA is a chitosan-based preparation which aims to control the microbial populations present in the must. **KTS®** FA is used as a biocontrol agent that helps to reduce the dose of sulphites and reduce contamination caused by spoilage microorganisms.

Application rate: 15 to 20 g/hL Packaging: 1 kg and 10





KTS® CONTROL

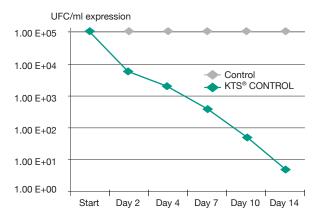
KTS® CONTROL is a preparation based on chitosan intended to control the development of microorganisms that cause organoleptic alteration in wines. Completely soluble when placed in water, it can be used on wine after AF or after MLF.

Application rate: 2 to 10 g/hL Packaging: 500 g





Monitoring of *Brettanomyces* population by quantitative PCR on a Merlot 2013 after addition of 10 g/hL **KTS[®] CONTROL**



TESTIMONIAL

"KTS[®] Flot works a treat. It speeds up the flotation process, enhances juice clarity and also lowers our cost of production. The results are amazing and way above my expectation."

Steve Yang – Winemaker at Duxton Vineyards Buronga (Formerly Stanley Wines) Mildura

EFFECTIVE SOLUTION for the treatment of musts and wines CONTAMINATED BY SMOKE FROM FOREST FIRES







PLANT PROTEIN-BASED PRODUCT THAT REDUCES SMOKE TAINT



RESTORES FRUITINESS AND FRESHNESS TO WINES

Developed to REDUCE THE COMPOUNDS THAT CAUSE SMOKE TAINT

MARTIN VIALATTE® INNOVATION

PROVGREEN® SMOKE TAINTS is an animal-free fining agent, is an effective solution for treating musts or fermenting wines contaminated by smoke from fires located near vineyards.

Developed to remove the compounds that cause smoke taint, **PROVGREEN® SMOKE TAINTS** reduces the masking effect produced by smoke taint and restores the wine's fruitiness and freshness. des vins.

It can be used on musts or on fermenting wines for clarification and fining, and is suitable for the production of vegan wines.

Packaging: 5 kg

Application rate: 40 to 100 g/hL depending on the level of spoilage.

Maximum legal dose (EU): 100 g/hL

A few prior trials should be carried out in order to determine the optimum dosage.





PROVGREEN® SMOKE TAINTS VEGAN PRODUCT SAMPLES AND TREATMENT PROTOCOLS NOW AVAILABLE

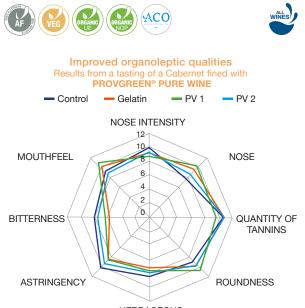
HOW TO SELECT FINING AGENTS IN TERMS OF THE OBJECTIVE

• The action of gelatins depends on their molecular weight. Each gelatin has a clearly defined area of action. The more the gelatin is hydrolysed (low molecular weight), the more it reacts with tannins. In addition, tannins fined by gelatin are tannins with high molecular weight and that are especially astringent. On the other hand, gelatins that are only slightly hydrolysed (high molecular weight) are more effective with regard to clarification and act more gently on tannins.

PROVGREEN® PURE WINE

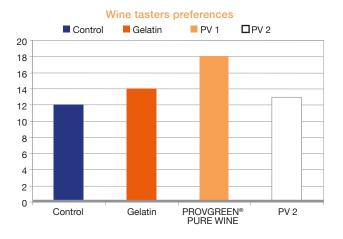
PROVGREEN® PURE WINE quickly flocculates particles suspended in wine while enabling optimum clarification. **PROVGREEN® PURE WINE** improves the organoleptic qualities of wines while eliminating aggressive and bitter tannins and providing more suppleness and roundness. Better aromatic expression of wines with perceived enhancing of fruit notes. **PROVGREEN® PURE WINE** provides well compacted deposits which is better than the animal fining basic treatment and participates in the good preparation of wines for pre-bottling filtration.

Application rate: 5 to 15 g/hL Packaging: 1 kg and 5 kg



HERBACEOUS

PV 1 = PROVGREEN® PURE WINE



As for plant proteins, their properties do not depend on their molecular weight but rather on the botanical origin of the protein and the way in which it was manufactured. This operating principle has enabled us to create a complete range of fining agents according to the type of wine to be treated and the objectives assigned.

Two objectives: Clarification · Organoleptic enhancement

PROVGREEN® SMOKE TAINTS

PROVGREEN® SMOKE TAINTS an animal-free fining agent, is an effective solution for treating musts or fermenting wines contaminated by smoke from fires located near vineyards. Developed to remove the compounds that cause smoke taint, **PROVGREEN® SMOKE TAINTS** reduces the masking effect produced by smoke taint and restores the wine's fruitiness and freshness. des vins. It can be used on musts or on fermenting wines for clarification and fining, and is suitable for the production of vegan wines.

Application rate: 40 to 100 g/hL depending on the level of spoilage. Maximum legal dose (EU): 100 g/hL. A few prior trials should be carried out in order to determine the optimum dosage **Packaging:** 5 kg





PVPP

Treatment of maderisation and browning of white wines. Reduction of bitterness, improved freshness and aroma in reds.

Application rate: 5 to 40 g/hL Packaging: 1 kg





GÉLISOL®

GÉLISOL[®] is an excellent fining agent for red wine with a medium to strong structure. It eliminates harsh tannins and highlights finesse, aromas and fruity and round profiles. **GÉLISOL**[®] is a fining agent which is well adapted for the clarification and fining of rosé and white wines.

Application rate: powder: 2 to 15 g/hL; liquid: 5 to 30 cL/hL Packaging: 1 L and 20 L





FINING OF WINES

CRISTALINE®

CRISTALINE® improves filterability of clogged wine especially derived from botryized grapes and eliminates bitterness and refines wines before the physical stabilization phases. It enables the total elimination of the finest particles. **CRISTALINE®** is adapted for clarifying difficult wines. It improves clarity, filterability and organoleptic characteristics.

Application rate: 1 to 2 g/hL

Packaging: 1 kg





SILISOL®

SILISOL[®] is a 30% solution of silica sol. It is used together with a protein fining agent to improve fining of white and rosé wines: it speeds up clarification, improves settling of lees, avoids over-fining, improves filterability and eliminates bitterness.

ORIGIN

Application rate: 1 to 5 cL/hL





PRODUCTS



AQUACOL

Fining agents (fish gelatin) for quality red wine. **AQUACOL** reveals roundness, highlights finesse and aromas and removes astringency.

Application rate: white and rosé wines 2 g hL to 5 g/hL, in conjunction with 2 cL/hL to 5 cL/hL of SILISOL red wines 24 g/hL to 16 g/hL

TYPE OF FINING TYPE OF WINE

Packaging: 1 L and 5 kg



PVPP	CORRECTOR fining agent • Removes oxidized polyphenols • Improves organoleptic qualities	DRAFT	White wine and Rosé
Fish gelatin	CORRECTOR & DISCOVERY fining agent • Reveals roundness • Highlights finesse and aromas • Removes astringency	DRAFT	Quality red wine
Gluten free vegetal proteins	PERFECTION and REFINING fining agent • Clarifies red wines • Removes astringent tannins • Softens • Refines • Generates low rate of lees	FINISHING	Quality red wine, White wine and Rosé
Plant proteins and carbon	CORRECTOR & REVEALING fining agent • Reduces concentrations of the volatile phenols that cause smoke taint • Expresses fruity aromas	DRAFT	Red, White and Rosé wines that have been exposed to smoke
Powder and Liquid gelatin	AFFINAGE & DISCOVERY fining agent • Refines the structure • Can be used in flotation	FINISHING	Quality red wine, White wine and Rosé
Fish fining agent	PERFECTION fining agent Provides brilliance • Eliminates bitterness	FINISHING	White wine and Rosé
Silica sol	Fining additive	FINISHING / DRAFT	White wine and Rosé
	Fish gelatin Gluten free vegetal proteins and Plant proteins and carbon Powder and Liquid gelatin Fish fining agent	PVPP • Removes oxidized polyphenols • Improves organoleptic qualities Fish gelatin CORRECTOR & DISCOVERY fining agent • Reveals roundness • Highlights finesse and aromas • Removes astringency Gluten free vegetal proteins PERFECTION and REFINING fining agent • Clarifies red wines • Removes astringent tannins • Softens • Refines • Generates low rate of lees Plant proteins and carbon CORRECTOR & REVEALING fining agent • Reduces concentrations of the volatile phenols that cause smoke taint • Expresses fruity aromas Powder and Liquid gelatin AFFINAGE & DISCOVERY fining agent • Refines the structure • Can be used in flotation Fish fining agent • PERFECTION fining agent • Provides brilliance • Eliminates bitterness	PVPP · Removes oxidized polyphenols · Improves organoleptic qualities DRAFT Fish gelatin CORRECTOR & DISCOVERY fining agent · Reveals roundness · Highlights finesse and aromas · Removes astringency DRAFT Gluten free vegetal proteins PERFECTION and REFINING fining agent · Clarifies red wines · Removes astringent tannins · Softens · Refines · Generates low rate of lees FINISHING Plant proteins and carbon CORRECTOR & REVEALING fining agent · Reduces concentrations of the volatile phenols that cause smoke taint · Expresses fruity aromas DRAFT Powder and Liquid gelatin AFFINAGE & DISCOVERY fining agent · Refines the structure · Can be used in flotation FINISHING Fish fining agent · Refrection fining agent · Provides brilliance · Eliminates bitterness FINISHING Silica sol Ening additive FINISHING

PROPERTIES

COLLOIDAL STABILISATION: GUM ARABIC

Gum arabic is a branched complex polysaccharide. Its two main applications are to stabilise colouring matter in red and rosé wines, and to provide roundness.

• MARTIN VIALATTE[®] pays special attention to the manufacture of these products based on gum arabic and SO_2 . The selection of the raw materials is extremely important in order to ensure the quality of these preparations. We choose raw materials of uniform appearance, with little colour and as few impurities as possible.

When dissolving it, a precise protocol is followed to ensure that the raw gum is fully dissolved and that the molecular structure of the polysaccharides is maintained, guaranteeing the product's effectiveness.

After the gum is dissolved, the preparation is filtered several times so as to obtain a light-coloured, clear solution.

DUOGOM MAX

DUOGOM MAX is a preparation based on Verek and Seyal gum arabic and SO_2 . It is recommended for colloidal stabilisation and enhancement of roundness in red and rosé wines. **DUOGOM MAX** has been specially formulated to simplify the work of those winemakers who wish to stabilise their wine with regard to colloids and provide roundness and sweetness, all in one single stage. Its stabilising action can also be noticed at the organoleptic level, through enhanced aromatic intensity.

Application rate: 10 to 40 cL/hL Packaging: 5 L and 20 L





GOMIXEL

GOMIXEL is a preparation based on Seyal gum arabic and SO_2 . It is recommended for colloidal stabilisation of white and rosé wines, and especially to provide roundness and sweetness to wines and enhance aromatic perception. Due to its specific composition, **GOMIXEL** has no effect on filtration, so that this preparation can be used before or after filtration depending on the winery process.

Application rate: 10 to 20 cL/hL Packaging: 1 L and 5 L



The MARTIN VIALATTE® range of preparations based on gum arabic and SO₂ covers the oenologist's every need: various qualities of colour stabilisation with SUPERNEOSTABIL, SUPERFILTROSTABIL and FILTROSTABIL, provision of roundness with GOMIXEL, and the dual properties of stabilisation and roundness with DUOGOM MAX.

Products based on gum arabic and SO₂ are not a simple aqueous solution of gum arabic. Raw gum arabic and potassium metabisulfite are dissolved, react according to set parameters, and undergo a chemical process designed to purify and stabilise the raw materials and optimise their performance. The final product obtained is not just a simple aqueous solution of the added raw materials but rather a product with unique functional characteristics.

FILTROSTABIL

FILTROSTABIL is a preparation based on Verek gum arabic and SO_2 . It ensures the stabilisation of colouring matter in red wines, avoiding the formation of cloudiness and deposits of condensed colouring matter in the bottle. Due to its make-up, **FILTROSTABIL** is highly effective, enabling it to adapt to every case of wine stabilisation, even in the event of major colour instability.

Application rate: 10 to 50 g/hL

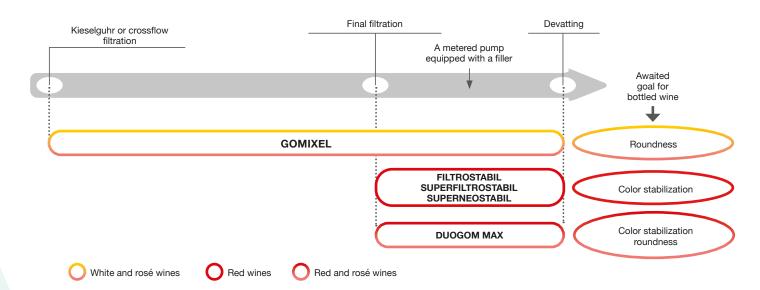




NAME	TYPE OF WINE	POSITIONING	CONCENTRATION g/L	DENSITY +/- 4 kg/m ³	ORIGIN
SUPERNEOSTABIL	wites	Standard stabilization for fast rotation wines	290	1100	Seyal
C C C C C C C C C C C C C C C C C C C		Stabilizes and provides roundness	200	1100	Seyal and Verek
GOMIXEL		Provides roundness	200	1100	Seyal

NAME	COLOR STABILITY	ROUNDNESS IMPACT	TARTARIC STABILITY AND IRON CASSE
FILTROSTABIL)))	,)
CO CO DUOGOM MAX)))))
GOMIXEL))))

Optimize input of arabic gum prior to bottling

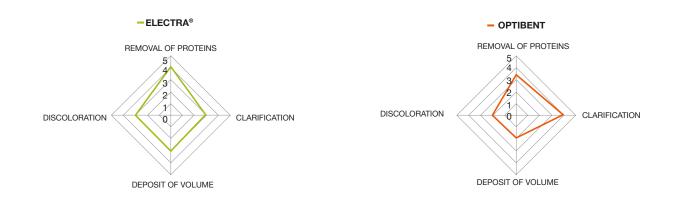


PROTEIN STABILIZATION: BENTONITE

Bottling is the final step in wine-making. In that sense, wine preparation is crucial in order for the wine to be crystal clear and compeltely stable from a microbiological vantage point (avoid refermentations) and also from a colloidal vantage point (avoid tartaric, color or protein casse). For this very particular step, MARTIN VIALATTE® has developed a specific bentonite product range to meet 2 objectives:

- Protein stabilization
- Clarification of wines having been subjected to protein fining

Some wine-makers look only for protein stabilization to minimize the organoleptic effects of fining with bentonite, others seek a compromise between protein stabilization and decrease treatment lees and even others look for a bentonite which ensures a good packing in their fining procedures. To respond to all these different needs MARTIN VIALATTE® has developed a bentonite product range to meet the requirements of bottlers. A summary of the properties of our bentonite product range classified on a scale of 1 to 5 with 0 corresponding to no effect and 5 to an extremely large effect are shown in the following graph.



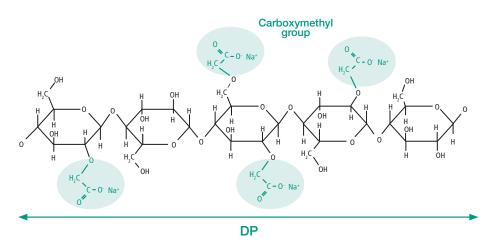
NAME BENTONITE	ASPECT	CHARACTERISTICS	DOSAGE	PACKAGING
GRANULA® BENT0018	Granulated	Activated calcium bentonite. Strong swelling capacity making bentonite very efficient with regard to unstable proteins. Medium deposits. Granulated form facilitates usage.	20 to 100 g/hL	25 kg
OPTIBENT BENT0024	Powder	Activated calcium bentonite complex and natural calcium in order to obtain a good compromise between unstable protein elimination and volume of deposits.	20 to 100 g/hL	25 kg
ELECTRA® BENTO0012	Powder	Activated calcium bentonite. Strong swelling capacity making bentonite very efficient with regard to unstable proteins. Medium deposits.	20 to 100 g/hL	25 kg

TARTRATE STABILISATION: CELLULOSE GUMS

Cellulose gum has many advantages regarding the tartrate stabilisation of wines. It provides long-lasting, effective stabilisation, it is cheap, and it is more environmentally friendly than other methods. A few facts about cellulose gum:

- Also called CMC: carboxymethyl cellulose
- Used for the last 20 years in the food industry
- 0 Shown to be harmless

- Natural origin for oenology: wood cellulose
- Authorised for tartrate stabilisation of wines at a maximum dosage of 10 g/hL (EU regulation)
- Japan has recently become one of the countries that accepts wines treated with CMC
- Stabilisation with regard to potassium bitartrate (no effect on calcium tartrate)



2 modes of action

- Prevents nucleation of tartrate crystals
- Hinders growth of microcrystals of tartrate

Characterised by:

- DP: degree of polymerization
- DS: degree of substitution (number of carboxyl groups / number of glucoses)

CRISTAB® BV

Low viscosity [20%]

CRISTAB® BV is solution of cellulose gum (CMC) of 20% natural origin. It brings together low viscosity and high concentration, ensuring effective stabilisation of wines with regard to potassium bitartrate and ease of use.

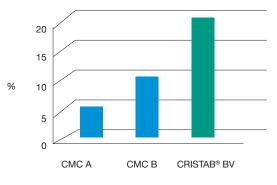
Application rate: 10 cL/hL

Packaging: 20 L



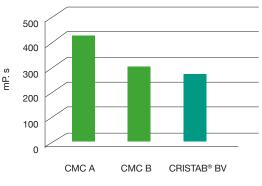


Concentration of the solution



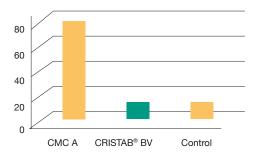
CRISTAB® BV is 2 to 4 times more concentrated than other CMCs

Viscosity of the solution



CRISTAB® BV is less viscous than other CMCs

Clogging index after addition to white wine



No effect on Clogging Index with CRISTAB® BV

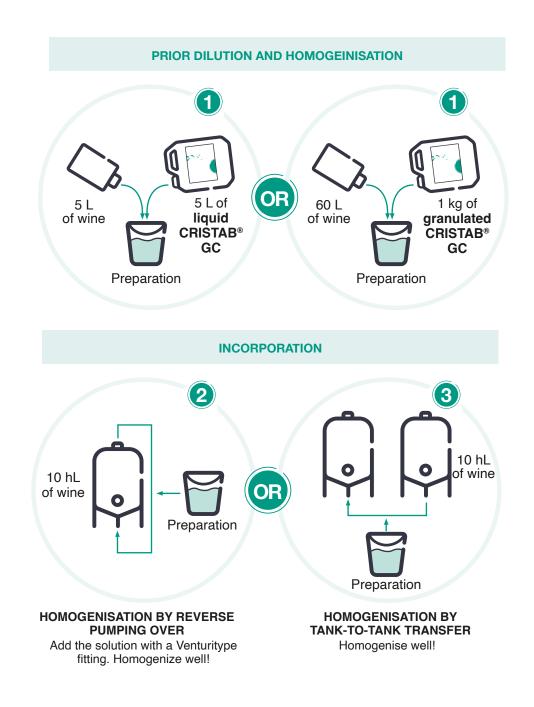
CRISTAB® GC

CRISTAB® GC is a cellulose gum (CMC) of natural origin in compliance with the Oenological Codex. **CRISTAB® GC** stabilizes white wine, certain rosé wine and wine base to obtain sparkling wine with regard to potassium bitartrate. Fast and efficient over time regardless of storage temperature variations, **CRISTAB® GC** acts as a colloid protector on the formation of crystals (nucleation) and on the possible growth of potassium bitartrate microcrystals found in wine. **CRISTAB® GC** has no organoleptic impact.

Application rate: granulated: 20g/hL liquid: 40 cL/hL Packaging: 5 L, 20 L and 1 kg







DISCOVER THE NEXT-GENERATION OF TARTRATE STABILISING AGENTS FOR WINES

ANTARTIKA® VR

ANTARTIKA® VR is a preparation based on a novel polymer (polyamino acid) recently authorised by the OIV (resolution Oeno 543/201) and on a plant polysaccharide. It provides effective stabilisation of wines with regard to tartrate precipitation of potassium bitartrate without destabilising the colour of red wines.

Application rate: 5 to 20 cL/hL

Packaging: 1 L, 10 L, 20 L and 1000 L





CONCENTRATED FORMULATION

ANTARTIKA® V40

ANTARTIKA® V40 is a preparation based on a novel polymer (polyamino acid) recently authorised by the OIV (resolution Oeno 543/201). It ensures stabilisation of wines with regard to tartrate precipitation of potassium bitartrate.

Application rate: 2.5 to 5 cL/hL

Packaging: 1 L, 10 L, 20 L and 1000 L





ANTARTIKA® FRESH

ANTARTIKA® FRESH is a solution based on a combination of potassium polyaspartate and plant polysaccharides selected for their impact on the aromatic profile of wines. ANTARTIKA® FRESH stabilises wines with regard to tartrate precipitation of potassium bitartrate, and enhances their fresh, fruity character without increasing the rigidity of their tannin structure. ANTARTIKA® FRESH has a positive impact on wines in three aspects: • Freshness • Fruitiness • Length

Application rate: 10 to 20 cL/hL Packaging: 1 L, 10 L, 20 L and 1000 L





ANTARTIKA® DUO

ANTARTIKA® DUO is a solution based on potassium polyaspartate and gum arabic. The balance between Seyal and Verek gums is specific and specially designed for optimum organoleptic balance in red wines. It stabilizes wines against precipitation of potassium bitartrate, while providing the structure with roundness and suppleness. **ANTARTIKA® DUO** can be used on red wines ready for bottling.

Application rate: 10 to 20 cL/hL Packaging: 1 L and 20 L





SPECIFIC TREATMENTS

NOIR ACTIVA MAX

Hyper activated decolorizing charcoal in granulated form

Active charcoal results from carbonizing plant matter in order to provide it with a porous structure. Pine is the raw material used for **NOIR ACTIVA MAX**. The charcoal then undergoes activation (using phosphoric acid for decolorizing charcoals) which considerably increases its specific surface area. Most decolorizing charcoals have a specific surface area around 1000 m²/g which is quite large but the specific surface area of **NOIR ACTIVA MAX** is 1800 m²/g which makes it highly effective.

Application rate: Consult your oenologist Packaging: 5 kg





PROVGREEN® SMOKE TAINTS

PROVGREEN® SMOKE TAINTS an animal-free fining agent, is an effective solution for treating musts or fermenting wines contaminated by smoke from fires located near vineyards. Developed to remove the compounds that cause smoke taint, **PROVGREEN® SMOKE TAINTS** reduces the masking effect produced by smoke taint and restores the wine's fruitiness and freshness. It can be used on musts or on fermenting wines for clarification and fining, and is suitable for the production of vegan wines.

Application rate: 40 to 100 g / hL depending on the level of spoilage. Maximum legal dose (EU): 100 g/hL. A few prior trials should be carried out in order to determine the optimum dosage.

Packaging: 5 kg





ORGANIC-AUTHORISED PRODUCTS

ORGANIC-AUTHORISED PRODUCTS

		UE	NOP	PAG
YEASTS VIALATTE	FE	RM	®	
VIALATTE FERM® W12	MC0	ノ	ノ	8
VIALATTE FERM® W28	ACO	ノ	ノ	9
VIALATTE FERM® W58	ACO	ノ	J	9
VIALATTE FERM® HD18	ACO	ノ	J	8
VIALATTE FERM® R26	ACO	ノ	J	10
VIALATTE FERM® R71	ACO	ノ	J	8
VIALATTE FERM® R82	ACO)	J	9
VIALATTE FERM® R96	ACO)	J	8
SO.DELIGHT®	ACO)	J	10
SO.FLAVOUR®	ACO)	J	10
SO.FRUITY	ACO)	J	10
VITILEVURE PROD	UC.	T R	AN	GE
VITILEVURE 58W3 YSEO™		ノ	ノ	13
VITILEVURE 3001 YSEO™		ノ	ノ	13
VITILEVURE SYRAH YSEO™		ノ	ノ	13
VITILEVURE QUARTZ [™]		ノ	ノ	13
LEVULINE® PRODU	лог	RA	NG	E
LEVULINE C19 YSEO™		ノ	ノ	13
LEVULINE SYNERGIE [™]		ノ	ノ	13
NUTRIENTS				
NUTRICELL® INITIAL		ノ	ノ	16
NUTRICELL® AA	ACO	ノ		17
NUTRICELL® START		ノ		17
NUTRICELL® MIDFERM		ノ		18
NUTRICELL® FINISH		ノ	ノ	17
YEAST PRODUCT				
NEO® CRISPY		2	1	21
NEO [®] SWEET		ノ	ノ	21
OPEN PURE FRAÎCHEUR®	_	ノ	ノ	21
OPEN PURE	ACO	ノ)	21

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KTS® FLOT	ACO	ノ		23
PROVGREEN® PURE MUST	ACO	J)	23
PV POUDRE LGV		J	J	23
ENZYMES				
VIAZYM [®] CLARIF PLUS		J	J	26
VIAZYM [®] FLOT		J)	26
VIAZYM [®] ROUGE		╯)	26
BACTERIA				
REFLEX MALO [®] 360		J)	29
REFLEX MALO® HD		J)	29
REFLEX MALO® PH		J)	29
VITILACTIC® STARTER BL01		J)	29
VITILACTIC® F		J)	29
TANNINS				
SUBLISTAB®		╯)	31
SUBLITAN® VINIF		╯)	30
SUBLIWHITE®		J)	31
SUBLIRED®		J)	31
VITANIL® B		╯)	30
VITANIL® VR		╯)	30
TANIXEL®		╯)	31
TANIN VINIF LGV		╯)	33
SUBLIPROTECT®		J)	34
SUBLI'OAK®		J)	34
TANIRAISIN	ACO))	33
TANIPÉPIN	ACO))	34
SIMILIOAK®				
SIMILOAK®	ACO))	36
SIMILOAK [®] WHITE		J)	36
SIMILOAK [®] TOASTED	ACO	J)	36
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KTS® CONTROL		J		37		
KTS® FLOT	ACO	╯		37		
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CRISTALINE®		J		36		
SILISOL®		J)	36		
AQUACOL		J		36		
STABILIZING AGE	NTS					
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FILTROSTABIL		╯)	41		
DUOGOM MAX		J		41		
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To find the list of products authorised under the rules of organic vinification (EU organic wine regulation, NOP(USA)) on the site www.martinvialatte.com

The authorization of these products in organic wines is subject to the applications and doses described in the regulations in force for oenological practices.

For more information, consult your oenologist.

The information contained above corresponds to the current state of our knowledge. They are given without commitment or guarantee insofar as the conditions of use are outside of our control. They do not exempt the user from observing the legislation and safety data in force.

ISO 22000 CERTIFICATION

MARTIN VIALATTE[®] has for many years followed a quality approach based on recognised standards. After being certified ISO 9001 in 1999, a quality management system, **MARTIN VIALATTE**[®] decided in 2009 to step up to ISO 22000, a food safety management system in the food chain. **MARTIN VIALATTE**[®]'s goal was to better meet its customers' expectations with regard to food safety, by demonstrating its control of potential hazards and by permanently providing safe, satisfactory products. As a result, production, packaging and storage of **MARTIN VIALATTE**[®] oenological products are now certified ISO 22000.

QUALITY - SAFETY - ENVIRONMENT AT THE HEART OF OUR COMMITMENT

A genuinely proactive policy drives our strong commitment:

- renewal of our ISO 22000 certification since it was first obtained in 2009
- achievement of Organic certification by ECOCERT for our organic products
- up-to-date investment in production, logistics and IT to optimise conditions of hygiene, preservation and traceability

OUR TEAMS' TRAINING AND INFORMATION

All the men and women who make up our teams, and especially those working in production, are trained in strict rules of hygiene. In line with **ISO 22000** requirements, we provide them with information about any safety issues that may arise.

Our system is also regularly assessed and updated with the collaboration and involvement of all our staff.

TOTAL TRACEABILITY

MARTIN VIALATTE[®] oenological products are managed with total traceability, made possible by batch numbering of finished products and raw materials, and by the power of our ERP software package with regard to traceability. The batch number shown on each product enables indepth traceability of the entire process: the raw materials used for production, suppliers, production conditions, transit warehouses, etc. Batch numbering of raw materials also enables the traceability of products manufactured from



Certification powr ia production. le conditionnement et le stockage des produits oenologiques

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VIALATTE FERM® R71	(ACO)	0	-		~	8
VIALATTE FERM® W28	Aço	6	_		~	9
VIALATTE FERM® W58	Aço	0	_	۲		9
VIALATTE FERM® R26	Aço	0	-			10
VIALATTE FERM® HD18	Aço	Ø	_	۷	~	8
VIALATTE FERM® R82	(Aço)	C	۲	۲		9
VIALATTE FERM [®] R96	ACO	C	۲	۲		8
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SO.FLAVOUR®	(ACO	C	۲	۲		10
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