

AUTHORISED OENOLOGICAL PRACTICES AND PROCESSES.

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Oenological practice		Conditions of use (1)	Limits on use Applications
1	Aeration or oxygenation using gaseous oxygen		
2	Heat treatments		
3	Centrifuging and filtration with or without an inert filtering agent		Use of an agent must not leave undesirable residues in the treated product
4	Use of carbon dioxide, argon or nitrogen, either alone or combined, in order to create an inert atmosphere and to handle the product shielded from the air		
5	Use of yeasts for wine production, whether dry or in wine suspension	Only with fresh grapes, grape must, partially fermented grape must, partially fermented grape must obtained from raisined grapes, concentrated grape must and new wine still in fermentation and for the second alcoholic fermentation of all categories of sparkling wine.	
6	The use, to encourage yeast development, of one or more of the following substances, with the possible addition of microcrystalline cellulose as an excipient:		
	— addition of diammonium phosphate or ammonium sulphate	Only with fresh grapes, grape must, partially fermented grape must, partially fermented grape must obtained from raisined grapes, concentrated grape must and new wine still in fermentation and for the second alcoholic fermentation of all categories of sparkling wine.	No more than 1 g/l (expressed in salts) (2) or 0,3 g/l for the second fermentation of sparkling wines.

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Oenological practice	Conditions of use (1)	Limits on use Applications
— addition of ammonium bisulphite	Only with fresh grapes, grape must, partially fermented grape must, partially fermented grape must obtained from raisined grapes, concentrated grape must and new wine still in fermentation	No more than 0,2 g/l (expressed in salts) (2) and up to the limits set in point 7.
— addition of thiamin hydrochloride	Only with fresh grapes, grape must, partially fermented grape must, partially fermented grape must obtained from raisined grapes, concentrated grape must and new wine still in fermentation and for the second alcoholic fermentation of all categories of sparkling wine.	No more than 0,6 mg/l (expressed in thiamin) for each treatment
►M6 — addition of yeast autolysates ◀	►M6 Only with fresh grapes, grape must, partially fermented grape must, partially fermented grape must obtained from raisined grapes, concentrated grape must and new wine still in fermentation. ◀	
7 Use of sulphur dioxide, potassium bisulphite or potassium metabisulphite, also called potassium disulphite or potassium pyrosulphite		Limits (i.e. maximum quantity in the product placed on the market) as laid down in Annex I B
8 Elimination of sulphur dioxide by physical processes	Only with fresh grapes, grape must, partially fermented grape must, partially fermented grape must obtained from raisined grapes, concentrated grape must, rectified concentrated grape must and new wine still in fermentation	
9 Treatment with charcoal for oenological use	Only for musts and new wines still in fermentation, rectified concentrated grape must and white wines	No more than 100 g of dry product per hl

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	Oenological practice	Conditions of use ⁽¹⁾	Limits on use Applications
▼M2	<p>10 clarification by means of one or more of the following substances for oenological use:</p> <ul style="list-style-type: none"> — edible gelatine, ►M6 — plant protein from wheat, peas and potatoes, ◀ — isinglass, — casein and potassium caseinates, — egg albumin, — bentonite, — silicon dioxide as a gel or colloidal solution, — kaolin, — tannin, ►M3 — chitosan derived from <i>Aspergillus niger</i>, — chitin-glucan derived from <i>Aspergillus niger</i>, ◀ ►M4 — yeast protein extracts. ◀ 		<p>The use of chitosan in the treatment of wines is limited to 100 g/hl.</p> <p>The use of chitin-glucan in the treatment of wines is limited to 100 g/hl</p> <p>►M4 For the treatment of musts of white wines and rosé wines the limit on the use of yeast protein extracts shall be 30 g/hl, and for the treatment of red wines it shall be 60 g/hl ◀</p>
▼B	11 Use of sorbic acid in potassium sorbate form		Maximum sorbic acid content in the product so treated and placed on the market: 200 mg/l
	12 Use of tartaric L(+) acid, malic L acid, DL malic acid, or lactic acid for acidification purposes	Conditions and limits laid down in points C and D of Annex V to Regulation (EC) No 479/2008 and Articles 11 and 13 of this Regulation. Specifications for L(+) tartaric acid laid down in paragraph 2 of Appendix 2	
	13 Use of one or more of the following substances for deacidification purposes:	Conditions and limits laid down in points C and D of Annex V to Regulation (EC) No 479/2008 and Articles 11 and 13 of this Regulation. Specifications for L(+) tartaric acid laid down in Appendix 2	
	<ul style="list-style-type: none"> — neutral potassium tartrate, — potassium bicarbonate, — calcium carbonate, which may contain small quantities of the double calcium salt of L(+) tartaric and L(-) malic acids, — calcium tartrate, — L(+) tartaric acid — a homogeneous preparation of tartaric acid and calcium carbonate in equivalent proportions and finely pulverised 		

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Oenological practice	Conditions of use ⁽¹⁾	Limits on use Applications
14 Addition of Aleppo pine resin	Under the conditions set out in Appendix 3	
15 Use of preparations from yeast cell walls		No more than 40 g/hl
16 Use of polyvinylpyrrolidone		No more than 80 g/hl
17 Use of lactic bacteria		
18 Addition of lysozyme		No more than 500 mg/l (where added to both the must and the wine, the total overall quantity must not exceed 500 mg/l)
19 Addition of L ascorbic acid		Maximum content in wine thus treated and placed on the market: 250 mg/l ⁽²⁾
20 Use of ion exchange resins	Only with grape must intended for the manufacture of rectified concentrated grape must under the conditions set out in Appendix 4	
21 Use in dry wines of fresh lees which are sound and undiluted and contain yeasts resulting from the recent vinification of dry wine	For the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008	Quantities not exceeding 5 % of the volume of product treated
22 Bubbling using argon or nitrogen		
23 Addition of carbon dioxide	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 7 and 9 of Annex IV to Regulation (EC) No 479/2008	In the case of still wines the maximum carbon dioxide content in the wine so treated and placed on the market is 3 g/l, while the excess pressure caused by the carbon dioxide must be less than 1 bar at a temperature of 20 °C
24 Addition of citric acid for wine stabilisation purposes	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008	Maximum content in wine thus treated and placed on the market: 1 g/l

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Oenological practice		Conditions of use (1)	Limits on use Applications
25	Addition of tannins	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Council Regulation (EC) No 479/2008	
26	The treatment: — of white and rosé wines with <u>potassium ferrocyanide</u> , — of red wines with <u>potassium ferrocyanide</u> or with <u>calcium phytate</u>	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008 under the conditions set out in Appendix 5	In the case of calcium phytate, no more than 8 g/hl
27	Addition of metatartaric acid	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008	No more than 100 mg/l
28	Use of acacia	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008	
29	Use of DL tartaric acid, also called racemic acid, or of its neutral salt of potassium, for precipitating excess calcium	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008 and under the conditions laid down in Appendix 5	
30	To assist the precipitation of tartaric salts, use of: — <u>potassium bitartrate</u> or potassium hydrogen tartrate, — <u>calcium tartrate</u>	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008	In the case of calcium tartrate, no more than 200 g/hl

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	Oenological practice	Conditions of use (1)	Limits on use Applications
31	Use of copper sulphate or cupric citrate to eliminate defects of taste or smell in the wine	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008	►M3 No more than 1 g/hl, provided that the copper content of the product so treated does not exceed 1 mg/l, with the exception of liqueur wines prepared from fresh unfermented or slightly fermented grape must, for which the copper content may not exceed 2 mg/l ◀
32	Addition of caramel within the meaning of Directive 94/36/EC of the European Parliament and of the Council of 30 June 1994 on colours for use in foodstuffs (2), to reinforce the colour	Only with liqueur wines	
33	Use of discs of pure paraffin impregnated with allyl isothiocyanate to create a sterile atmosphere	Only for partially fermented must for direct human consumption as such, and wine. Permitted solely in Italy as long as it is not prohibited under that country's legislation and only in containers holding more than 20 litres	No trace of allyl isothiocyanate must be present in the wine
34	Addition of dimethyldicarbonate (DMDC) to wine for microbiological stabilisation	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008 and under the conditions laid down in Appendix 6	No more than 200 mg/l with no detectable residues in the wine placed on the market
35	Addition of yeast mannoproteins to ensure the tartaric and protein stabilisation of wines	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008	
36	Electrodialysis treatment to ensure the tartaric stabilisation of the wine	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008 and under the conditions laid down in Appendix 7	

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Oenological practice		Conditions of use (1)	Limits on use Applications
37	Use of urease to reduce the level of urea in the wine	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008 and under the conditions laid down in Appendix 8	
38	Use of oak chips in winemaking and ageing, including in the fermentation of fresh grapes and grape must	Under the conditions laid down in Appendix 9	
39	Use: — of calcium alginate, or, — of potassium alginate,	Only for the manufacture of all categories of sparkling and semi-sparkling wines obtained by fermentation in bottle and with the lees separated by disgorging	
40	►M4 Correction of the alcohol content of wine ◀	Only with wine and under the conditions laid down in Appendix 10	
▼M3			
▼B			
42	Addition of carboxymethylcellulose (cellulose gums) to ensure tartaric stabilisation	Only with wine and all categories of sparkling and semi-sparkling wine	No more than 100 mg/l
43	Treatment with cation exchangers to ensure the tartaric stabilisation of the wine	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex IV to Regulation (EC) No 479/2008 and under the conditions laid down in Appendix 12	
▼M2			
44	►M3 Treatment using chitosan derived from <i>Aspergillus niger</i> ◀	Under the conditions set out in Appendix 13	

▼M2

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Oenological practice		Conditions of use (1)	Limits on use Applications
45	►M3 Treatment using chitin-glucan derived from <i>Aspergillus niger</i> ◀	Under the conditions set out in Appendix 13	
46	Acidification by means of electro-membranary treatment	Conditions and limits laid down in points C and D of Annex XVa to Regulation (EC) No 1234/2007 and Articles 11 and 13 of this Regulation Under the conditions set out in Appendix 14	
47	Use of enzymatic preparations for oenological purposes in maceration, clarification, stabilisation, filtration and to reveal the aromatic precursors of grapes present in the must and the wine	Without prejudice to the provisions of Article 9(2) of this Regulation, enzymatic preparations and the enzyme activities of these preparations (i.e., pectolyase, pectin methylesterase, polygalacturonase, hemicellulase, cellulase, betaglucanase and glycosidase) must comply with the corresponding purity and identification specifications of the International Oenological Codex published by the OIV	
▼M4			
48	Acidification by treatment with cation exchangers	Conditions and limits laid down in points C and D of Annex XVa to Regulation (EC) No 1234/2007 and Articles 11 and 13 of this Regulation. Under the conditions set out in Appendix 15	
49	Reduction in sugar content of musts through membrane coupling	For the products defined in point 10 of Annex XIb to Regulation (EC) No 1234/2007, under the conditions stipulated in Appendix 16	
50	Deacidification by electromembrane treatment	Conditions and limits laid down in points C and D of Annex XVa to Regulation (EC) No 1234/2007 and Articles 11 and 13 of this Regulation. Under the conditions set out in Appendix 17	
▼M6			
51	Use of inactivated yeasts		

▼M6

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Oenological practice		Conditions of use ^(f)	Limits on use Applications
52	Management of dissolved gas in wine using membrane contactors	For the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15 and 16 of Annex XIb to Regulation (EC) No 1234/2007 except the addition of carbon dioxide for the products defined in paragraphs 4, 5, 6 and 8 of that Annex.	

▼M9

53	Treatment of wines using a membrane technology coupled with activated carbon to reduce excess 4-ethylphenol and 4-ethylguaiacol	For wines and under the conditions laid down in Appendix 19	
54	Use of polyvinylimidazole-polyvinylpyrrolidone copolymers (PVI/PVP)	For musts and wines and under the conditions laid down in Appendix 20	No more than 500 mg/l (where added to both the must and the wine, the total overall quantity must not exceed 500 mg/l)
55	Use of silver chloride	For wines and under the conditions laid down in Appendix 21	No more than 1 g/hl, residue in the wine < 0,1 mg/l (silver)

▼M10

56	Use of malolactic fermentation activators	Under the conditions laid down in Appendix 22.	
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57	Use of filter plates containing zeolites γ-faujasite to adsorb haloanisoles	Under the conditions laid down in Appendix 23	
58	Treatment with potassium polyaspartate in wine	Under the conditions laid down in Appendix 24	No more than 10 g/hl

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(f) Unless otherwise stated, the practice or process described may be used for fresh grapes, grape must, partially fermented grape must, partially fermented grape must from raisined grapes, concentrated grape must, new wine still in fermentation, partially fermented grape must for direct human consumption, wine, all categories of sparkling wine, semi-sparkling wine, aerated semi-sparkling wine, liqueur wines, wines made from raisined grapes and wines made from over-ripened grapes.
 (g) These ammonium salts may also be used in combination, up to an overall limit of 1g/l, without prejudice to the specific limits of 0,3 g/l or 0,2 g/l set above.
 (h) The use limit is 250 mg/l for each treatment.
 (i) OJ L 237, 10.9.1994, p. 13.

▼M2