



## Winemaking practices and additives compatible with Claristar<sup>®</sup> and Final touch<sup>®</sup> mannoproteins

| Winemaking<br>practices                   | Applications   | Compatibilities of mannoproteins with treatment done |                                    |  |
|---|--|--|------------------------------------|--|
|   |  | Before<br>Mannoproteins<br>addition                  | After<br>Mannoproteins<br>addition | Recommendations  |
| Activated charcoal                        | Treatment of oxidation or<br>coloration of whites<br>Treatment of contaminants in<br>must and wine in fermentation | Yes  | No                                 |  |
| Alcohol level                             | We have found that Claristar is  | most effective when                                  | the wine to be treat               | ed contains less than 16% alcohol.   |
| Arabic gum                                | Stabilisation and Texture  | Yes  | Yes                                |  |
| Ascorbic Acid                             | Anti-oxidising   | Yes  | Yes                                |  |
| Barrel                                    | Ageing   | refer to   | Tannins                            |  |
| Bentonite                                 | Clarification and stabilisation  | Yes  | No                                 |  |
| Blending                                  | Mixing wines to make a cuvée   | Yes  | To be analysed                     |  |
| Carboxyl methyl<br>cellulose CMC          | Tartrate stabilisation   | Yes  | Yes                                | ATTENTION: the stabilisation capacity of these 2<br>products is not cumulative. The boundaries of each<br>are the same.                            |
| Calcium Carbonate<br>CaCO3                | Diacidification of the wine  | No   | No                                 |  |
| Casein                                    | Remove oxidisible and oxidised<br>phenolic compounds   | Yes  | No                                 |  |
| Cellulose                                 | Prevent oxidation of whites and<br>rosés   | Yes  | No                                 |  |
|   | Filtration   | Yes  | Yes                                | Possible retention with 100% cellulose filter.<br>Lenticular pads compatible. Addition after earth<br>mandatory.                                   |
| Chitin-based<br>derivatives               | Clarification, prevention of metals casse and detoxification   | Yes  | No                                 | Those products are not soluble so the racking done<br>after their addition could affect the efficienc of of<br>Claristar and Final touch products. |
| Citric Acid                               | Prevention of iron casse   | Yes  | No                                 |  |
| Cold stabilization                        | Tartrate stabilisation   | Yes  | Yes                                |  |
| Copper sulphate or<br>citrate             | Treatment of reduction odour   | Yes  | No                                 | The copper concentration in the wine must be lower<br>than 1 mg/l - Delay of 48h before the mannoproteins<br>use.                                  |
| DMDC                                      | Sterilisation  | Yes  | Yes                                |  |
| Electrodialysis                           | Tartrate stabilisation   | Yes  | Yes                                |  |
| Ferrocyanure of                           | Removal of excess of iron on   |  | NI                                 |  |
| potassium                                 | whites and rosés   | Yes  | No                                 |  |
| Filtration aids                           | Filtration using diatomite<br>(Kieselguhr/diatomaceous earth,<br>perlite, cellulose fibers)                        | Yes  | No                                 |  |
| Filtration<br>membrane<br>organic/mineral | Filtration with crossflow  | Yes  | Yes                                |  |
| Filtration<br>membrane plastic<br>fibers  | Filtration with cartridges   | Yes  | Yes                                |  |
| Gelatin                                   | Clarification  | Yes  | No                                 |  |
| Filtration with glass fiber               | Filtration   | Yes  | Yes                                |  |
| Ion Echange Resins                        | Tartrate stabilisation   | Yes  | No                                 |  |
| Isinglass                                 | Clarification of white wines   | Yes  | No                                 |  |
| Lactic Acid                               | Acidification  | Yes  | No                                 | Delay of 15 days to be respected before the mannoproteins use.   |
| Malic Acid, L & DL                        | Acidification  | Yes  | No                                 | Delay of 15 days to be respected before the<br>mannoproteins use.<br>26/04/2020 Poge1/2  |





## Winemaking practices and additives compatible with Claristar<sup>®</sup> and Final touch<sup>®</sup> mannoproteins

| Winemaking<br>practices                            | Applications                                       | Compatibilities of mannoproteins<br>with treatment done |                                    |   |
|--|--|---|------------------------------------|---|
|  |  | Before<br>Mannoproteins<br>addition                     | After<br>Mannoproteins<br>addition | Recommendations   |
| Metatartaric acid                                  | Tartrate stabilisation                             | Yes   | Yes                                | ATTENTION: the stabilisation capacity of these 2<br>products is not cumulative. The boundaries of each<br>are the same.   |
| Oak chips  | Gives complexity and structure to the wine         | refer to Tannins  |                                    |   |
| Phytate of Calcium                                 | Removal of excess of iron on reds                  | Yes   | No                                 |   |
| Plant Proteins                                     | Clarification and fining                           | Yes   | No                                 |   |
| Potassium<br>bicarbonate KHCO3                     | Diacidification of the wine                        | Yes   | No                                 | Delay of 15 days to be respected before the mannoproteins use.  |
| Potassium<br>bitartrate                            | Accelerate precipitation of tartaric crystals      | Yes   | No                                 |   |
| Potassium<br>metabisulfite                         | Sulphiting   | Yes   | Yes                                |   |
| Potassium<br>polyaspartatae KPA                    | Tartrate stabilisation                             | Yes   | Yes                                | ATTENTION: the stabilisation capacity of these 2<br>products is not cumulative. The boundaries of each<br>are the same.   |
| PVPP   | Clarification                                      | Yes   | No                                 |   |
| Silica gel   | Clarification and fining                           | Yes   | No                                 |   |
| SO2  | Sulphiting   | Yes   | Yes                                |   |
| Sorbic acid or<br>Potassium sorbate                | Prevent the micribiological development            | Yes   | Yes                                |   |
| Tannins (chips,<br>barrels, enological<br>tannins) | Ageing, Colour stabilisation,<br>Prevent oxidation | Yes   | No                                 | Turbidity test with wine sample filtrated +<br>Mannoproteins (wished dosage or dose according to<br>instability analysis) at 4/8°C : absence of turbidity<br>after 1 day. |
| Tartaric acid DL                                   | Decrease calcium level                             | Yes   | No                                 | Delay of 15 days to be respected before the mannoproteins use.  |
| Tartaric acid L                                    | Acidification                                      | Yes   | No                                 | Delay of 15 days to be respected before the mannoproteins use.  |
| Yeasts hulls                                       | Detoxification                                     | Yes   | No                                 | Those products are not soluble so the racking done<br>after their addition could affect the efficienc of of<br>Claristar and Final touch products.                        |

Diligent care has been taken to ensure that the information provided here is accurate. Since the user's specific conditions of use and application are beyond our control, we give no warranty and make no representation regarding the results which may be obtained by the user. The user is responsible for determining the suitability and legal status of the use intended for our products.