

# TRAP'METALS™

## CLARIFICATION - FINING OF MUSTS

**Reduces the concentration of metals in musts and wines.  
An innovative, non-allergenic solution.**

### ↓ OENOLOGICAL APPLICATIONS

TRAP'METALS™ is an association of PVI/PVP (POLYVINYLMIDAZOLE / POLYVINYLPYRROLIDONE, an insoluble, adsorbent copolymer), chitosan and yeast cell walls. The synergy of these various components helps bind heavy metals (Cu<sup>2+</sup>, Fe<sup>3+</sup>, Pb<sup>2+</sup>, ...) and reduces concentration in musts and wines. It makes it possible to:

- Limit the phenomenon of ferric haze,
- Limit the reactions of oxidation on musts by eliminating copper and iron salts, which are catalysers of oxidation reactions,
- Preserve the thiolated potential of musts,
- Enhance fermentation kinetics

### ↓ INSTRUCTIONS FOR USE

Disperse TRAP'METALS™ in 10 times its weight of water and shake the preparation until you obtain a suspension that is well mixed in and without lumps. For better dispersion and interaction, add TRAP'METALS™ in the must or wine already being shaken. See that everything is thoroughly mixed in.

Precautions for use:

Place TRAP'METALS™ in suspension twice a day through a process of mixing by pumping over, taking wine from the bottom of the tank. Allow to stand and take a sample to check iron content. The OIV (International Organisation of Vine and Wine) specifies removal of the copolymer at the latest 2 days after being added and separation from wine by filtration before being bottled.

If iron content is still high, carry out a second treatment. The total dose used must be less than 100 g/hL.

This process must be recorded in the cellar's register.

This treatment must be carried out under the responsibility of an oenologist or specialist technician.

### ↓ DOSE RATE

Prior tests are recommended to determine the optimum dose.

Eliminating copper on white musts:

- 20 to 30 g/hL for an initial copper content of 1 to 3 mg/L
- 30 to 50 g/hL for an initial copper content of 3 to 5 mg/L
- 50 to 70 g/hL for an initial copper content of 5 to 8 mg/L

Eliminating iron from red wines:

- 20 to 80 g/hL, depending on the initial concentration of iron

Legal maximum dose in line with current European regulations: 100 g/hL

### ↓ PACKAGING AND STORAGE

- 1 kg

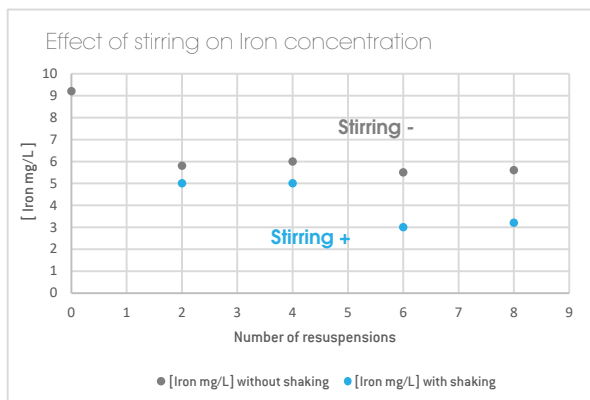
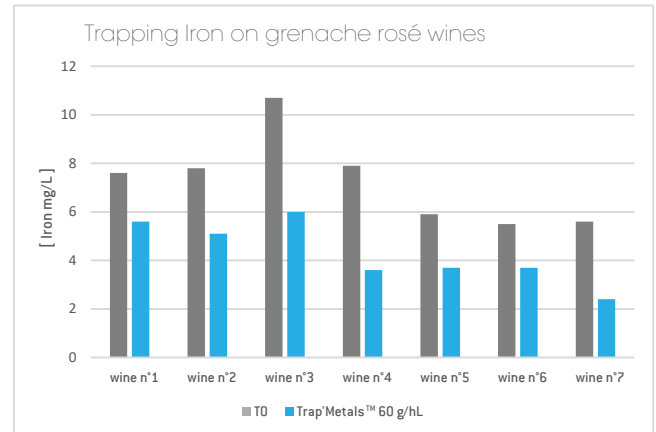
To be stored in dry, well-ventilated odour-free premises, at a temperature of between 5 and 25°C.

Once the product has been opened, it must be used rapidly. Once placed in solution, the preparation must be used during the day.

# TRAP'METALS™

## TRAPPING IRON

**TRAP'METALS™** reduces the concentration of iron in wines by a minimum of 25 to 50%. Rosé wines are clarified and take on an attractive, very pale pink hue. Tasting is significantly enhanced, wines are clearer and fruitier, and the metallic end note disappears.



## THE EFFECT OF STIRRING

In order to optimise iron trapping in wines, the graph opposite shows that it is strongly recommended to stir the product when implemented in the wine.

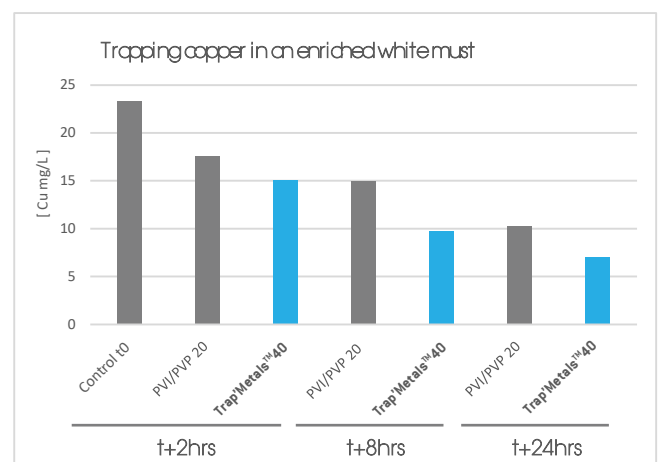
Renewing this during the period of treatment enables a more significant reduction in iron content.

This heightened efficiency is explained by better interaction between the liquid and solid phase and by optimum iron adsorption which goes from the ferrous form  $Fe^{2+}$  to the ferric form  $Fe^{3+}$ .

## TRAPPING COPPER

The synergetic action of the three **TRAP'METALS™** compounds reduces copper level more than the pure Pvi/Pvp method.

Prolonged contact time accentuates the drop in copper level and concentration is reduced by 65% after 24 hours.

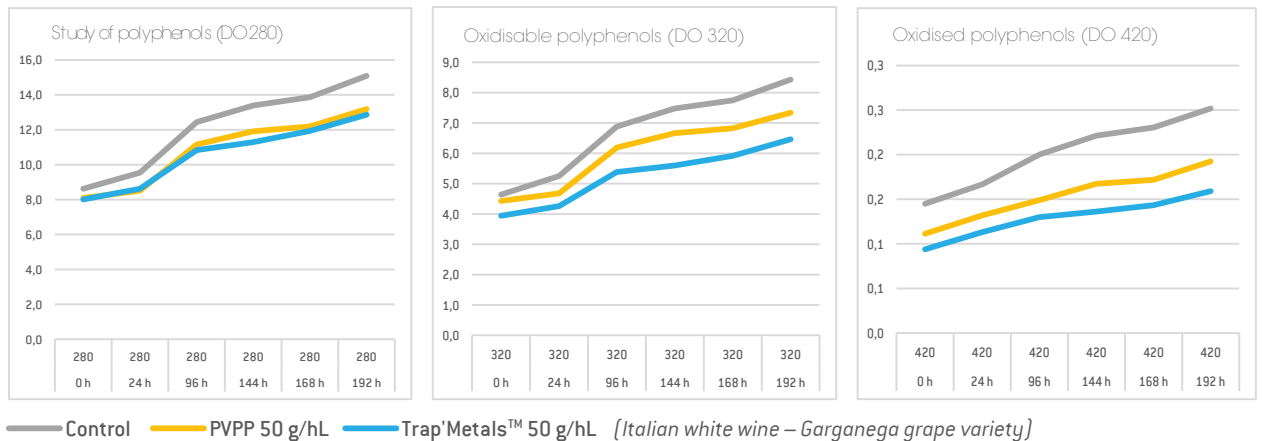


# TRAP'METALS™

## EVOLUTION OF PHENOLIC COMPOUNDS

In addition to the product's performance in trapping metals, the following results show its capacity to reduce polyphenol levels in wines:

- The reduction in total polyphenolic load with **TRAP'METALS™** is comparable with the PVPP method.
- The potential of oxidability of wine treated with **TRAP'METALS™** is less than wine treated with PVPP.



## REDUCTION IN PINKING

**TRAP'METALS™** reduces the sensitivity of white wines to "pinking", a problem encountered in wines that are rich in polyphenols and vinified in reducing conditions.

Pinking is characterised by an evolution in the colour of white wines towards a pink-grey colour. Procyanidins are transformed into anthocyanidols [F. Cosme & coll., 41st World Congress of Vine and Wine - BIO Web of Conferences - Feb. 2019]. The oxidation produced during transfers of wines (pumping, bottling, etc...) as well as a low temperature (+ O<sub>2</sub> dissolved) accentuate this phenomenon.

In literature, PVPP is described as being most efficient in fighting against pinking. In this trial, **TRAP'METALS™** and Pvi/Pvp both appear to be good candidates for reducing the pinking index of a white wine of the grenache grape variety, sensitive to pinking.

