



# NOXITAN Liquid CSM

Sulfide for musts and wines



## → TECHNICAL DESCRIPTION

Sulphur dioxide has been used for centuries as an antiseptic, antioxidant and antioxidizing product, and in enology for the high power of extraction of anthocyanins from the skin. Sulphur dioxide additions are indispensable when pressing grapes, from one side to favour the quick predominance of *Saccharomyces cerevisiae* yeasts, and on the other side to inhibit the premature development of lactic bacteria, as well as the action of grape polyphenol-oxydase. During storage period, the SO<sub>2</sub> ensures the control of bacteric development and polluting microorganisms.

Practical trials show however that antioxidant effect on red wines is limited. In fact it is verified that phenolic compounds in red wines are more oxidizable than SO<sub>2</sub> and are therefore capable of prioritarily catch the dissolved oxygen. From this consideration, it appears clear that the action of SO<sub>2</sub> must be strengthened through the utilization of natural antioxidizing products that we can attribute to the group of tannins. It is known that preparations containing ellagic tannins cause an increase in rH, on the contrary preparations based on gallic tannins have a limited action towards rH, while proanthocyanidins favour the decrease of rH in white wines. The addition of proanthocyanidinic, ellagic and gallic tannins to wines sensibly influences their composition and their quality: tannins take part in oxidation-reduction phenomena, they consume dissolved oxygen and block the formation of peroxides capturing the formed free radicals. All trials point out that tannins are inclined to limit bacteria growth, above all acetic bacteria, which are sensible to gall tannins and ellagic tannins and less sensible to condensed tannins. The antibacterial effect has to be attributed to the action the tannins exerce on the bacterial cellular wall. In the light of such considerations, it appears clear that, in order to have antimicrobial, antioxidant and antioxidizing effects, it is necessary to take advantage of both sulphur dioxide and tannins, such as in Noxitan preparations, to make use of their synergetic effects.

## → COMPOSITION AND TECHNICAL CHARACTERISTICS

Solution of potassium bisulphite stabilized with citric acid.

## → DOSAGE

10 mL/hL of **Noxitan Liquid CSM** will produce 10,5 mg/L of SO<sub>2</sub>.

## → INSTRUCTIONS FOR USE

Immediately add to the must in fermentation.

## → STORAGE AND PACKAGING

Store in a cool dry place, away from direct sunlight and heat.

- 25 kg net drums.
- 200 kg net drums.
- 1000 kg net IBC.

