



PROTECT-F

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 Specific treatment based on fumaric acid and tannins

→ TECHNICAL DESCRIPTION

Protect-F is a product in which the synergy of the components exerts bacteriocidal and bacteriostatic, clarifying, stabilising and antioxidant action.

Protect-F is based on a formula containing fumaric acid (E297), and gallic acid and proanthocyanidinic tannins, which allows reducing, and, in some cases, neutralising unwanted bacterial microbial load in wine; is primarily active against lactic bacteria, but also helps in countervailing and decreasing the charge of acetic bacteria.

Fumaric acid denatures DNA and proteins, permeating at the membrane level. The presence of gall tannins and proanthocyanidins also enables a high antioxidant and stabilising action, protecting the wine from oxidation.

Protect-F thus plays an important role in the prevention and treatment of contamination due to lactic bacteria, facilitating work in the cellar; it allows preserving the malic acid contents and obtaining wines with fewer biogenic amines.

The use of **Protect-F** ensure healthiness and sustainability, since, thanks to the powerful antimicrobial and antioxidant action deriving from the synergy of the components, it allows to significantly reducing SO₂, protecting wines and providing a good alternative to lysozyme. Moreover, **Protect-F** does not interact with the colouring matter, but, thanks to the presence of tannins, helps stabilise colour and anthocyanins.

The wines produced after the addition of **Protect-F** are clean on the nose and free from olfactory impurities of bacterial origin, in addition to possessing a natural freshness, given by the acid component, as well as by malic preservation and by the protection offered by tannins.

Protect-F is widely used in wines to be aged in wood; in red, white and rosé wines. The action of **Protect-F** lasts over time, over 60 days from application. We recommend to always reduce the microbial population for longer storage times by using Danmil filtering layers and cartridges.

Potentiometric analysis: dosages of **Protect-F** on different wines.

| WINES/TREATMENT | pH 3.2 | pH 3.4 | pH 3.5 | pH 3.7 |
|-----------------|--------|--------|--------|--------|
| 10 g/hL | 3,17 | 3,36 | 3,47 | 3,66 |
| 20 g/hL | 3,16 | 3,35 | 3,46 | 3,65 |
| 30 g/hL | 3,16 | 3,34 | 3,44 | 3,63 |
| 40 g/hL | 3,16 | 3,33 | 3,43 | 3,62 |
| 50 g/hL | 3,15 | 3,32 | 3,42 | 3,60 |
| 60 g/hL | 3,15 | 3,31 | 3,41 | 3,58 |

→ COMPOSITION AND TECHNICAL CHARACTERISTICS

Fumaric Acid (E297), gall tannins and proanthocyanidins.





PROTECT-F

→ DOSAGE

In wines, depending on the contamination. 10 to 60 g/hL, as appropriate.

→ METHOD OF USE

Dissolve the 1:10 dose, adding it to the mass to be pumped over.

→ STORAGE AND PACKAGING

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

Packs with 1kg net weight in 4kg boxes.
5Kg bags.

