



AST

BROAD SPECTRUM ANTIOXIDANT

COMPOSITION

Potassium metabisulfite 50%
L-ascorbic acid 30%
Gallic tannin 20%

GENERAL FEATURES

Appearance: light brown homogeneous powder, slight SO₂ odor.

As a result of the synergy among its components, AST prevents must oxidation, preserving grape aromatic potential.

Ascorbic acid rapidly reacts with oxygen, eliminating it and preventing the effect of laccase; gallic tannin - with its excellent antioxidant and antiradical properties - captures hydrogen peroxide formed during the reaction between ascorbic acid and oxygen, enhancing the action of sulfur dioxide and maintaining its antimicrobial effectiveness.

The perfect balance among AST components preserves and enhances grape aromatic characteristics, ensuring an effective antioxidant, anti-oxidase and antimicrobial action, while reducing the macerating effect of sulfur dioxide.

APPLICATIONS

- Treatment of grapes and musts during transport to the cellar, to prevent oxidation and contamination due to indigenous microorganisms.
- Production of fragrant and well-structured wines: AST is a fast deoxygenating agent: in a few hours it dramatically reduces the content of oxygen dissolved in must, thus preventing oxidation of grape natural aromatic and phenolic components, and preserving varietal aromatic features. Moreover, AST reduces the quantity of SO₂ in pre-fermentation stages, resulting in a lower production of acetaldehyde and H₂S during alcoholic fermentation and a considerable improvement of wine organoleptic quality. Finally, tannin contributes to improving wine structure and mouthfeel balance.
- Protection against oxidases: in musts obtained from grapes infected with *Botrytis cinerea*, AST competes with laccase for the consumption of oxygen and, consuming it faster than the enzyme, limits the laccase/oxidant action.
- Regular fermentations: the antimicrobial action of sulfur dioxide, enhanced by the bacteriostatic effect of the hydrolysable tannin, delays the development of lactic bacteria, thus preventing any bacterial alterations, even in high pH conditions.
- Reduction of stabilization and clarification treatments: used on grapes, AST ensures the protection provided by sulfur dioxide, limiting, however, its macerating effect, whenever this is not required, e.g. with white grapes rich in polyphenols, Champagne bases (especially blanc de noirs), and in case of mechanical vintage.

DOSAGE

15-20 g/hL (1.2-1.7 lb/1000 gal) or more, if necessary, applying it at different stages (grape harvest, grape unloading, grape press, must).

10 g/hL (0.8 lb/1000 gal) of AST provides around 28 mg/L of SO₂ and 30 mg/L of ascorbic acid.

INSTRUCTIONS FOR USE

Dissolve AST in 10 parts water and add directly to must or apply on grapes.

Sealed package: store in a cool, dry, well-ventilated area.

Opened package: reseal and store as described above.

Attention: hygroscopic product.

Product made by raw material that is in compliance with the following specifications:

Codex Œnologique International

Product approved for winemaking, in accordance with:

Reg. (CE) N. 606/2009

ESSECO srl

San Martino

Trecale (NO) Italy

Tel. +39-0321-790.300

Fax +39-0321-790.347

vino@enartis.it

www.enartis.com

The indications supplied are based on our current knowledge and experience, but do not relieve the user from adopting the necessary safety precautions or from the responsibility to use the product properly.