






TANNINS

HIDEKI

Tannin providing wine antioxidant and antimicrobial protection.

	<p>COMPOSITION Blend of gallic, ellagic and condensed tannins.</p>
	<p>GENERAL CHARACTERISTICS HIDEKI is a wine protection tool composed of tannins with an excellent antioxidant effect and a high ability to interfere with the functional proteins of microorganism cells.</p> <p>In nature, plants produce polyphenolic substances in response to injuries caused by external agents: viruses, fungi, bacteria, insects, etc. as well as vertebrates. In cases of viral, bacterial and fungal infections, tannins play a protective role in plant tissue by reducing the activity of enzymes produced by the pathogen entering the plant cell and by blocking the transport proteins present in the cell membrane of the pathogen to prevent its exchange with the growth substrate. At the same time, due to their ability to chelate metals and block free radicals, tannins limit the deterioration of plant tissues caused by oxidation triggered by the pathogen attack.</p> <p>The best gallic, ellagic and condensed tannins were selected for HIDEKI due to their ability to interfere with the action of transport proteins of microorganisms, chelating capacity and antiradical activity. After selection, a purification process concentrated the most active polyphenolic fractions and amplified the desired protective effect.</p> <p>The result is a blend of tannins able to protect wine from chemical oxidation, enzymatic oxidation (laccase) and to limit the growth of undesired microorganisms, particularly bacteria, for long periods of time and in wine with pH close to 4.</p>
	<p>APPLICATIONS During wine preparation for bottling:</p> <ul style="list-style-type: none"> ▪ As an alternative to the antioxidant and antimicrobial action of sulfur dioxide. ▪ In wine previously treated with EnartisStab Micro/Micro M (activated chitosan) to prolong protection after the removal of the antimicrobial agent. ▪ To prevent the development of unwanted microorganisms that can alter the composition and sensory quality of bottled wine (increase in volatile acidity, appearance of anomalous odors, loss of acidity, etc.).
	<p>DOSAGE As an antioxidant: 1 - 3 g/hL (0.08-0.25 lb/1,000 gal) As microbiostatic: 5 - 10 g/hL (0.4-0.8 lb/1000 gal)</p>
	<p>INSTRUCTIONS FOR USE Dissolve HIDEKI at a 1:10 ratio in water or wine while mixing continuously to avoid clumps. Add to wine during pump-over with a dosage pump or Venturi tube. Performing laboratory trials is recommended to evaluate the sensory impact of the tannin and in order to determine the best dosage. When added close to bottling, it is important to evaluate the effect on filterability and protein and colloidal stability by completing preliminary laboratory trials. In the case of bacteriostatic application, it is recommended to perform microbiological analysis regularly.</p>
	<p>PACKAGING AND STORAGE CONDITIONS 1 kg</p> <p>Sealed package: store in a cool, dry, well-ventilated area. Opened package: carefully reseal and store as indicated above.</p>

The indications given here correspond to the current state of our knowledge and experience, however they do not relieve the user from compliance with safety and protection regulations or from improper use of the product.

COMPLIANCE

Product made of raw material is in compliance with the following specifications:
Codex OEnologique International



Product approved for winemaking in accordance with
Reg. (EU) 2019/934

Product approved for winemaking by the TTB:
Legal Limit: The residual amount of tannin shall not exceed 0.8 g/L in white wine and 3.0 g/L in red wine (in gallic acid). Only tannin which does not impart color may be used. Total tannin shall not be increased by more than 150 mg/L (in tannic acid).

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