Inspiring innovation.

EnartisStab MICRO M

FAQS

Frequently Asked Questions

How does chitosan work?

Chitosan is positively charged and acts on the negatively charged cell walls of a wide range of microorganisms, inhibiting cell growth and leading to cell death. Furthermore, its affinity to metal cations facilitates removal of prooxidant metals from solution while also destabilizing the structure of cell walls by removing structural cations.

Why are Enartis' chitosan-based products more effective than the competitors?

It's pre-activated. Enartis has developed a unique pre-activation process that aims to increase the positive molecular charge and enlarge the contact surface area of chitosan. It improves reactivity with a wider spectrum of spoilage microorganisms (such as *Brettanomyces, Oenococcus, Pediococcus, Acetobacter, Lactobacillus, Zygosaccharomyces, Schizosaccharomyces,* and other contaminants yeast) and increases solubility, making it a more rapid and effective product.

What does EnartisStab MICRO M contain?

EnartisStab MICRO M contains pre-activated chitosan derived from *Aspergillus niger* and inactivated yeast, specifically developed for the treatment of musts and wines, even in high turbidity.

How soon do I need to rack-off after treatment with this product?

Depending on the microbial contamination load, we recommend from a couple of days to a week of contact in which the product can be resuspended every other day. Once the product is removed via racking, the wine is no longer protected. For improved efficacy when treating a wine, an initial contact time of 30 min via mixing is important. After initial treatment, EnartisStab MICRO M can remain in the wine for prolonged periods (up to 4 months) and periodic stirring/resuspension (every 1 – 2 weeks) will help prevent spoilage during ageing.

Can EnartisStab MICRO M replace SO_2?

The treatment with EnartisStab MICRO M can help replace or reduce the use of SO_2. It has antimicrobial, antioxidant, and antioxidasic activity, and unlike SO_2, its efficacy is not pH-dependent. Using EnartisStab MICRO M is a very effective way of preventing microbial contamination and oxidation, while keeping SO_2 levels low. While EnartisStab MICRO M is approved for eliminating spoilage microorganisms, wines will also benefit from this treatment by removing oxidative precursors (catechins), inhibiting oxidative enzymatic activity (laccase from rotten grapes), and chelating metals (copper and iron) responsible for oxidation reactions.

How many ppm SO_2 protection does EnartisStab MICRO M provide at a given dose rate?

EnartisStab Micro M does not have any direct SO_2 protection equivalent. It acts by removing microbes, small phenolic compounds, and metals, thereby allowing for lower SO_2 dosages.

How to maintain microbiological control after treatment with EnartisStab MICRO M?

To ensure microbial stability, it is recommended to use EnartisStab Micro M in synergy with HIDEKI, a blend of technical tannins with bacteriostatic action. Essentially, EnartisStab Micro M removes microbes on contact, while HIDEKI can be added afterwards to suppress future microbial growth.
Both these products can also be effectively used to inhibit malolactic fermentation.

Can I use EnartisStab MICRO M instead of lysozyme to delay or prevent MLF and stabilize my wine?

Absolutely! Lysozyme is considered an allergenic product, while EnartisStab MICRO M is allergen-free. Additionally, lysozyme is only effective against lactic acid bacteria for a short time, while EnartisStab MICRO M can control *Brettanomyces*, wild yeast, *Acetobacter, Zygosaccharomyces*, and *Lactobacillus* much longer by being resuspended while in contact with must/wine. At 10 g/hL it is highly effective at preventing MLF and once settled and removed, MLF can proceed as normal using the EnartisML range.

The TDS states that EnartisStab MICRO M can help prevent the formation of reductive compounds, but which ones does this product help to minimize?

EnartisStab MICRO M can prevent the formation of sulfur compounds when used during fermentation by limiting microbe/yeast interactions. EnartisStab MICRO M has been shown to significantly reduce methyl mercaptan (rotten cabbage, stagnant water), ethyl mercaptan (burnt match, earthy), diethyl sulfide (rubber), dimethyl sulfide (canned corn, asparagus), and other associated sulfur compounds, although its effect on elevated levels of hydrogen sulfide is negligible.

What about other volatile phenols such as those associated with *Brettanomyces*?

Significant reductions, up to 50%, have been demonstrated on the most commonly found volatile phenols, 4-ethylyguaiacol (4-EG) and 4-ethylphenol (4-EP), as well as significant reductions in both 4-vinylguaiacol (4-VG) and 4-vinylphenol (4-VP). To eliminate and reduce odors related to the formation of volatile phenols, we recommend using it in synergy with FENOL FREE.

What dose rates should I be using depending on the type of spoilage microorganism?

The table below provides an idea of the amount of EnartisStab MICRO M we would suggest using for major spoilage microorganisms.

CONTAMINATION	LOW	AVERAGE	HIGH
NUMBER OF CONTAMINATING CELLS/mL	<100	$10^2 – 10^4$	$10^4 - 10^6$
Brettanomyces			
Lactobacillus			
Oenococcus			
non-*Saccharomyces*			
Zygosaccharomyces			
Pediococcus			
Acetobacter			
Suggested dose of EnartisStab Micro M (g/hL)	5	10	20

Can I use EnartisStab MICRO M in wine maturing in barrel to prevent microbial growth?

Yes, EnartisStab MICRO M is approved for use in juice, must, and wine in barrel or any type of vessel. EnartisStab MICRO M remains effective in wine for prolonged periods (up to 4 months), and periodic stirring/resuspension (every 1 – 2 weeks) will help prevent spoilage during ageing.

Can EnartisStab MICRO M be used for sluggish/stuck fermentations?

Absolutely. You can avoid a time-consuming restart or make it more successful by using EnartisStab MICRO M to eliminate competition for the inoculated yeast. It kills all bacteria and *Brettanomyces* while not affecting *S. cerevisiae*, so you can rest easy knowing that the sugar and nutrients are only consumed by friendly microbes.

Can EnartisStab MICRO M be used for wild/spontaneous fermentations?

Yes. EnartisStab MICRO M can be added to must intended for spontaneous fermentation. This helps ensure complete fermentation kinetics and decreases the risk of contaminants. EnartisStab MICRO M promotes cleaner, defect-free fermentations, working as a useful tool even in those fermented by indigenous yeasts.

Does EnartisStab MICRO M reduce the impact of TCA (cork taint)?

It can certainly help! Our advice is to use it together with PLANTIS AF, a powerful tool to reduce TCA concentration. In fact, a trial done with EnartisStab MICRO M on white wine exhibiting a moldy TCA note at 39 ng/L of 2,4,6 trichloroanisole showed a reduction of more than 50% and was deemed clean by a panel of tasters following a 17 g/hL addition of EnartisStab MICRO M.

If you have any further questions, please contact Technical Support vino@enartis.it