

Scott Laboratories Introduces Velcorin

This past June, Health Canada approved the use of Velcorin® (dimethyldicarbonate/ DMDC), a microbial control agent produced by LANXESS for use in the production of wine within Canada. VELCORIN technology has been used within the US Wine industry since 1988 and is very effective at low dosages against a broad range of yeast, bacteria and molds. Unlike many other oenological practices though, VELCORIN does not affect wine taste, bouquet or colour.

Applications

Wines containing residual sugar are susceptible to fermentation in the bottle, which can lead to haze, off-odors, off-flavors and effervescence. Adding VELCORIN to wine during bottling can help prevent refermentation. Also, the product VELCORIN can be used to replace or decrease sorbate, which is sometimes used in wines containing residual sugar.

To control spoilage yeast such as *Brettanomyces* (especially in unfiltered or moderately filtered wines):

Brettanomyces is able to metabolize sugars, including cellobiose from toasted barrels, leading to the evolution of 4-ethylphenol and other undesirable sensory attributes. VELCORIN is very effective against *Brettanomyces*.

To decrease the amount of sulfur dioxide used in wines:

Sulfur dioxide, used in combination with VELCORIN technology, has been shown to achieve microbial stability at lower overall sulfur dioxide levels.

To reduce warehouse holding time in early-to-market wines:

VELCORIN technology can be used to decrease the amount of sulfur dioxide and/or decrease the degree of filtration required. Such wines undergo speedier sulfur dioxide equilibration and can be released earlier.

To prevent refermentation in wines for bulk transport:

Recently, certain European countries and companies have moved to minimize or eliminate the use of sorbate in wines. VELCORIN, a microbial control agent, has been used in lieu of sorbate, at the point of bulk container filling to prevent refermentation of wines containing residual sugar.

To replace hot filling process and tunnel pasteurization:

Microbiologic sensitive wines may be bottled by temperature up to 150°F to prevent refermentation or products filled in cans may be pasteurized which stresses the product and affects its properties whereas VELCORIN is added at usual cellar temperature.

Frequently Asked Questions:

How does VELCORIN work?

VELCORIN controls microorganisms by entering the cell and inactivating some of the key enzymes required for cell function. Specifically, VELCORIN is thought to react with the histidyl residues of proteins, including those involved in the active site of many enzymes. Susceptible enzymes are consequently rendered functionless due to blockage of the active site and/or conformational changes in structure. Excess VELCORIN then completely hydrolyzes in the presence of water.

What factors determine VELCORIN effectiveness?

The effectiveness of VELCORIN technology depends on microbial type, microbial load and other factors. At low doses, VELCORIN is very effective against yeast. At greater doses, VELCORIN is also effective against bacteria and certain fungi. Pre-treatment of wine must reduce the microbial load to less than 500 microorganisms/mL. That said, VELCORIN is not a replacement for good sanitation practices.

How much VELCORIN can I use in my wine?

Health Canada permits up to 200 ppm total of VELCORIN to be used in wine, dealcoholized wine and low-alcohol wine.

Are there any limits in respect to product packaging?

Velcorin can be used for filling into standard packaging such as glass, PET, cans, bag-in-box or pouches, as well as during production, temporary storage or transport in a container.

Why do I have to use an approved dosing system?

Due to the unique physical properties of VELCORIN and to help assure safe handling, LANXESS Corp. requires the use of VELCORIN DT dosing machines. VELCORIN is hydrophobic and solidifies at 17°C (63°F). The dosing machines are engineered expressly for VELCORIN (to prevent solidification and aid in VELCORIN solubility). Temperature controls, specific safety features and a special metering system, are also incorporated into the design.

I don't have a VELCORIN-dosing machine. How can I use VELCORIN technology to treat my wine?

Mobile VELCORIN-dosing service has proven very popular within the United States. Currently several businesses have expressed an interest in the mobile dosing of VELCORIN within Canada. Please call our office (800-797-2688) to learn more about mobile dosing within your region.

Is VELCORIN-treated wine approved in other countries?

DMDC is approved by the codex alimentarius as a processing aid for wine as well as a recognized oenological practice by OIV (International Organization of Vines and Wine). VELCORIN approval is product and country specific. Of the approximately 60 countries that currently allow VELCORIN product treatment for wine include: United States, Argentina, Australia, Chile, Mexico, European Union member states, Russia, New Zealand and South Africa.

Scott Laboratories is the exclusive distributor of VELCORIN within Canada's wine industry. Please contact your Scott Laboratories Sales Representative, or our office at 1-800-797-2688 to learn more about the benefits of VELCORIN.