When wineries add sulfur dioxide (SO₂) to wine as an antioxidant and preservative, the SO₂ is not considered a pesticide. However, when sulfur dioxide is used to sanitize corks, barrels and equipment, the compound is legally classified a pesticide. A pesticide is a substance or mixture of substances used to kill or control a pest. A pesticide may be a chemical substance, biological agent, antimicrobial, or disinfectant used against any pest.

This means that only an SO₂ product registered as a pesticide with the U.S. Environmental Protection Agency (EPA) and the California Department of Pesticide Regulation (DPR) can be used to sanitize corks, barrels and equipment.

Check the product label to make sure there is an “EPA Registration Number,” and that the intended use is on the label. Using unregistered SO₂ for winery sanitation (for example, using a product bought for fermentation, or an antioxidant or preservative) is against the law and subject to fines and penalties.

Sulfur dioxide is a corrosive, deadly gas. Winery workers must carefully follow safety rules whenever they use SO₂. Extra rules must be followed when the gas is used as a pesticide.

Only two SO₂ products are currently registered for winery sanitation, and they are federally restricted-use pesticides. That means certain requirements must be met to buy or use them.

- **Qualified Applicator License (QAL).** You cannot use SO₂ with a Private Applicator’s Certificate (even if it is on your own property, for your own wine, or for your employer). Only certified applicators can buy or use restricted pesticides. State law requires that any person who uses or supervises the use of a federally restricted-use pesticide must, at a minimum, hold a Qualified Applicator Certificate (QAC) or a Qualified Applicator License (QAL). You can not use SO₂ with a Private Applicator’s Certificate (even if it is on your own property, for your own wine, or for your employer). Wine production is considered a commercial process that requires a commercial certification or license from DPR. Getting a QAC or QAL requires passing two examinations given by DPR. Proof of certification is required to purchase pesticidal sulfur dioxide.

- **Operator identification number is also needed for purchase.** Wineries must present an operator identification number (OPID) to buy a federally restricted-use pesticide. You can get an OPID from the County Agricultural Commissioner (CAC) in the county where the winery sanitation work is occurring.

- **Recordkeeping and reporting of pesticide use is required.** Wineries must keep records of how much pesticidal SO₂ they use and send use information to the CAC on a Monthly Summary Pesticide Use Report (PUR).

What’s required to get certified or licensed to buy or use pesticidal SO₂?

Federal and state laws require each winery that buys or uses a restricted pesticide to have at least one employee with a QAC or QAL. This requires passing two DPR examinations: “Laws, Regulations and Basic Principles”; and the “Category P - Microbial Pest Control” exam. Detailed information on how to get a QAC or QAL is available at www.cdpr.ca.gov. Under the “Quick Links” tab, click on “Licensing” and then click on the “Qualified Applicator License” or “Qualified Applicator Certificate” link under “Individual Licenses and Certificates.”
These are the basic steps:

- Submit an application to DPR. In section “D - Examinations,” check boxes “R - Laws and Regulations” and “P - Microbial.”

- When you send in your application as a new applicant, you must pay an application fee of $40 (QAC) or $80 (QAL), plus a $50 fee for each exam. Passing score for each exam is 70 percent or higher. If you don’t pass the first time around, another application with exam fee is required within the first year.

- To prepare for the Laws and Regulations exam, you should study the Laws and Regulations Study Guide and The Safe and Effective Use of Pesticides. Download the first publication from DPR’s Web site, www.cdpr.ca.gov/docs/license/lcpubs.htm. You can buy the second from the University of California, http://anrcatalog.ucanr.edu. Or, call 1-800-994-8849 and ask to order Publication 3324.

- The second exam, Microbial Pest Control, will focus on control of microbial pests, and the safe and effective use of antimicrobial pesticides. It will also include reading and understanding an antimicrobial label.

DPR schedules exams from January through November each year, throughout the state. Download a schedule from www.cdpr.ca.gov. Under “Quick Links,” click on “Licensing,” then “Exam Schedule.”

Are there other requirements to be a QAC or QAL?

QACs and QALs with P-Microbial must take approved continuing education (CE) classes during their valid license period to be eligible for renewal. For more information, go to www.cdpr.ca.gov. Under “Quick Links,” click on “Licensing,” and “Licensing and Certificate Holders,” under “Continuing Education.” After your first renewal, your QAC or QAL will be issued on a two year cycle. The required number of CE hours for this QAC or QAL will be 2 hours in laws and regulations and 6 hours in other pesticides and pest management education for a total of 8 hours to be completed every 2 years.

Another option

Smaller wineries that have few occasions to sanitize equipment, barrels and corks may choose to hire a licensed pest control business (PCB) to do their sanitation work. These businesses must have the necessary qualified applicator and pest control business licenses to buy and use SO2.

Need more information?

Go to http://www.cdpr.ca.gov/docs/license/liccert.htm. Or call DPR’s Licensing Office at (916) 445-4038, or e-mail to LicenseMail@cdpr.ca.gov

RECORDKEEPING AND REPORTING OF SULFUR DIOXIDE USE

California law requires that all agricultural operations file reports of their pesticide use. Each month, wineries that use SO2 as a sanitizer must send a Monthly Summary PUR to their CAC. (You don’t have to report nonpesticidal uses of SO2.)

Monthly Summary PUR forms and instructions are available online. The reporting form (#DPR-PM-060) and instructions can be downloaded from www.cdpr.ca.gov. In the “Quick Links” tab near the top, click on the “Forms” link, then “Pesticide Use Reporting,” then the “PDF” link for “Monthly Summary Pesticide Use Report.” If you do not have access to a computer, paper forms are available at your local CAC’s office.

You are encouraged to file PURs electronically. In order to obtain access to the CalAgPermits online system, you will need to contact your local CAC’s office to be issued a User Name and Password which will allow you web access to enter PURs.

PURs must be sent by the tenth of each month following the month in which the application was made.

To calculate use, weigh the SO2 cylinder at the beginning and end of each month. The difference between the two readings is the pounds of SO2 used that month. Enter that number in column C of the form. Under column D, applications made to multiple barrels on a single day can be reported as one application. In column E, enter “91” (the code for other fumigation).

Single copies of this handout are available from DPR by calling 916-445-3974, or can be downloaded from DPR’s Web site, www.cdpr.ca.gov, click on the “A-Z Index” then “Sulfur dioxide use in wineries” link.