

Determination of Sulfur Dioxide in Wine

AN #: 19_001_11_01

Market: Wine

Subcategory: Sulfer Dioxide Measurement

Product: HI 84500

Description:

Sulfur dioxide (SO₂) is a widely used additive in the wine industry to prevent against oxidation and microbial spoilage. As an antioxidant, it helps preserve the color, flavor, and stability of a wine. Sulfur dioxide serves as an antimicrobial by interfering with the metabolic pathways of yeast and bacteria. The term “free” indicates the amount of SO₂ available to perform these functions. The remainder of SO₂ present is “bound” to other compounds and is not available to protect the wine. These two elements combined represent the “total” SO₂ present in wine. Free and total sulfur dioxide content in a finished wine will vary with its style, the personal philosophy of the winemaker, and any regulatory and governmental requirements.



The Ripper Method is a titration used by winemakers throughout the world to understand the amount of SO₂ present in wine. While simple in principle, it can be quite labor-intensive and time-consuming, especially if there are many samples to test.

Application:

A customer that makes wine was looking for a way to measure the sulfur dioxide content. They required the method to be easier than what they currently used and inexpensive, since they were a small wine producer with a limited budget. The HI 84500 is the perfect tool for any winery large and small to help save time and simplify the SO₂ titration process. It is considerably less expensive than many titration systems available on the market, since it is dedicated to a single parameter, sulfur dioxide. The customer appreciated that the procedure was easy to follow and the results were very accurate and repeatable due to the piston-style dosing. The customer was also grateful that the supplied reagents were premade so there was no need for an analytical balance or complicated glassware to make the solutions necessary for the titration. Other valuable features of the meter include a dot matrix display that can be used to watch a graph of the progress of the titration, USB ports for flash drive and PC connectivity, and dynamic dosing to speed up the titration as well as prevent over-titration.

