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How do I use a titret kit?

A titret kit is used to measure the amount of sulfur dioxide (SO^2) in a wine. Sulfur dioxide has two main purposes when it comes to the storage of a wine. One purpose is it is an anti-microbial agent. This means that the SO^2 will curtail the growth of undesirable yeast and bacteria. The second purpose is to protect the wine from oxidizing as it ages.

If you have too little sodium hydroxide in your wine, the wine will age prematurely. If you have too much, you will notice a 'salt' like flavor in your wine. Using a titret kit will help you determine your levels of SO^2 in your wine.

How to Measure Sulfite in Wine Titrets®

10 - 100 ppm

1. Collect the sample in any clean container.
2. Push a valve assembly onto the Titret ampule tip until it fits snugly (fig. 1).
   NOTE: The valve assembly should reach the reference line on the neck of the ampule.
3. Gently snap the tip of the ampule at the score mark (fig. 2).

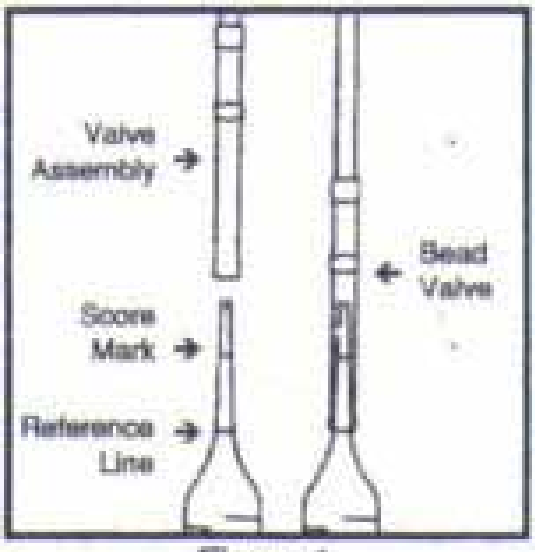

Figure 1

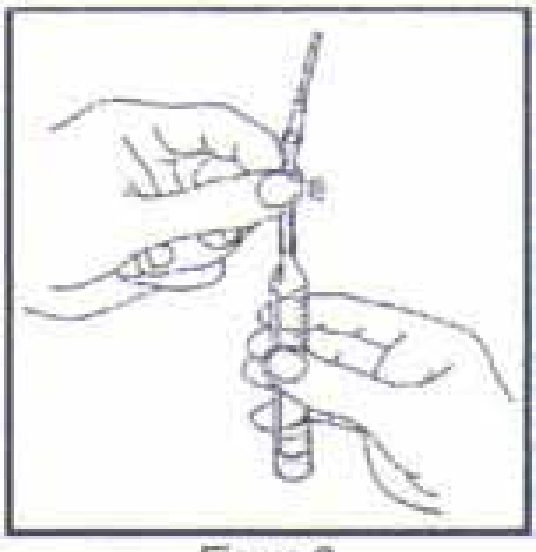
Figure 2

4. With the tip of the valve assembly immersed in the sample, squeeze the bead valve briefly to add a small amount of sample to the Titret. The contents will turn a DEEP BLUE color (fig. 3). Wait 30 seconds.
   NOTE: Do not squeeze the bead valve unless the tip of the valve assembly is immersed below the surface of the liquid.
5. Rock the Titret to mix the contents.
6. Continue to add small amounts of sample until the liquid in the Titret turns from BLUE TO COLORLESS (or the color of your sample).
7. Be sure to rock the Titret to mix the contents after each addition of sample. When the color of the liquid in the Titret changes to COLORLESS (or the color of your sample), the end point has been reached. Stop the test, hold the Titret with its tip pointed upward and read the scale opposite the liquid level to obtain the test results in ppm (mg/L) free SO^2 (fig. 4).

Figure 3

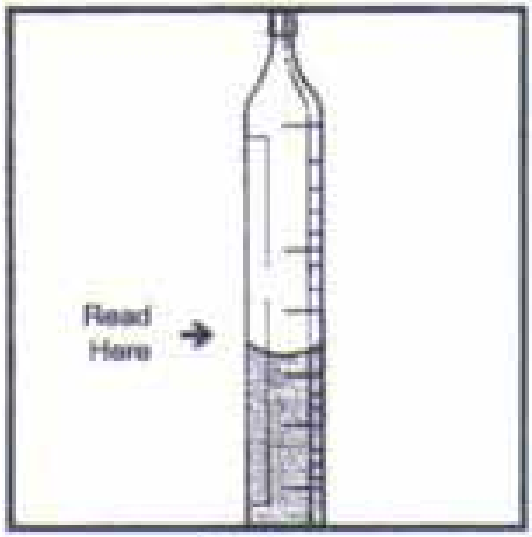

Figure 4

Once you have your parts per million, you'll know where you stand. Ideally, most wines will have a free SO^2 reading between 50 – 70 ppm.

If you find that you need to add some sodium dioxide to your wine, here is an idea of how much to add:

Campden tablets - 1 tablet / gallon of wine yields 50 ppm SO^2

Potassium Metabisulfite - ¼ tsp / 20 liters yields 40 ppm SO^2

If you have too much sodium dioxide in your wine, you can reduce it by "splash racking". This is done by holding your racking tube so that it is a few inches above the bottom of the carboy when you begin your transfer so that the wine splashes as it's going into the carboy. Keep raising the tubing so that it is always a few inches above the liquid during the transfer. Or, you may use The Whip Wine Degasser, which will accomplish the same thing.

You may have heard that you can use hydrogen peroxide to reduce SO^2 levels in your wine. This is true, however we would caution against using this method, as even a slight miscalculation can ruin your entire batch. The ratio is 0.7 ml of 3% hydrogen peroxide per gallon of wine to reduce the SO^2 level by 10 ppm.