

Inspiring innovation.

RIPPER METHOD TO MEASURE SO2

- 1. To avoid interference of ascorbic acid (or phenolic compounds) when performing the Ripper method, you first need to do a titration of the wine without SO₂ present. Acetaldehyde strongly binds to SO₂, essentially neutralizing the SO₂ when running the Ripper Method and will therefore be used in excess.
 - a. Pipet 50 mL of wine into a 300 mL Erlenmeyer flask then add 5 mL of 0.7% Acetaldehyde solution (C_2H_4O at 7 g/L). Close the flask with parafilm or a stopper, swirl and wait at least 30 minutes.
 - b. Add 5 mL Starch Indicator and 3 mL of 0.10 N (1/10N) Sulfuric Acid solution.
 - c. Perform the titration with 0.0156 N (N/64) lodine until the solution changes color (turns blue). The lodine mL added to get the color change in this step is the V1. The V1 number is typically low unless Ascorbic Acid has been added to the wine, which will make it much higher.
- 2. Next, perform the classic lodine Titration for either Free SO₂ or Total SO₂.
- 3. When doing the calculation, you must subtract out V1 to remove the interference by ascorbic acid and phenolic compounds. Take the volume of lodine needed to affect a color change from the reaction in step 2 (either Free or Total SO₂) and subtract V1. The difference is then used to calculate the actual Total and Free SO₂ present.

V (iodine in classic reaction) - V1 (iodine in acetaldehyde reaction) = volume used to calculate SO2

The indications supplied are based on our current knowledge and experience, but do not relieve the user from adopting the necessary safety precautions or from the responsibility of using the product(s) properly.