FACTSHEET: FREE AND TOTAL SULFUR DIOXIDE TEST KITS FOR THE CHEMWELL 2910

Sulfur dioxide is used as a preservative in wine and there are restrictions limiting the amount that can be added in most wine producing countries. These test kits are a fast and easy way to determine the amount of free and total sulfur dioxide in wine samples, without the need for the laborious setup associated with traditional methods. Additionally, unlike some other commercial products our free sulfur dioxide test kit does not contain formaldehyde, which is a known carcinogen. These methods can be used for both white and red wines.

PRINCIPLE OF MEASUREMENT

The amount of free sulfite present in wine is measured by monitoring the reaction with a chromogen under acidic conditions. The amount of total sulfite present in wine is measured by monitoring the reaction with a chromogen under basic conditions. The reduction of the chromogen leads to formation of a strongly absorbing compound which can be measured at 340 nm. The measured amount of the activated chromogen is stoichiometrically proportional to the amount of free or total sulfite present.

TEST PERFORMANCE CHEMWELL 2910, FREE SULFUR DIOXIDE (n = 102, white and red wines)

Average difference between test kit and aspiration/oxidation = 0 mg/L (SD 2 mg/L)

Correlation between test kit and aspiration/oxidation: $R^2 = 0.97$

Repeatability (CV) = 4.10 %
(SD) = 0.98 mg/L

LOQ = 3 mg/L

Linearity = 3 – 50 mg/L

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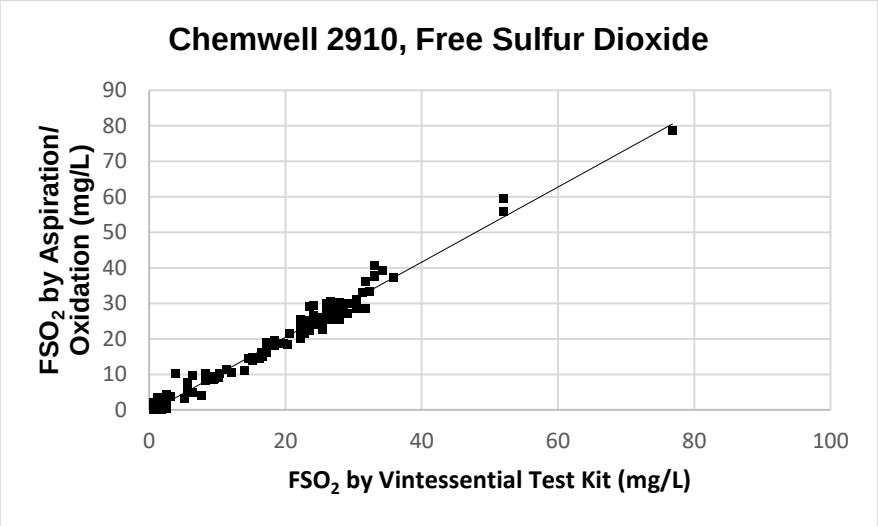
WA 6284



TEST PERFORMANCE CHEMWELL 2910, TOTAL SULFUR DIOXIDE (n = 100, white and red wines)

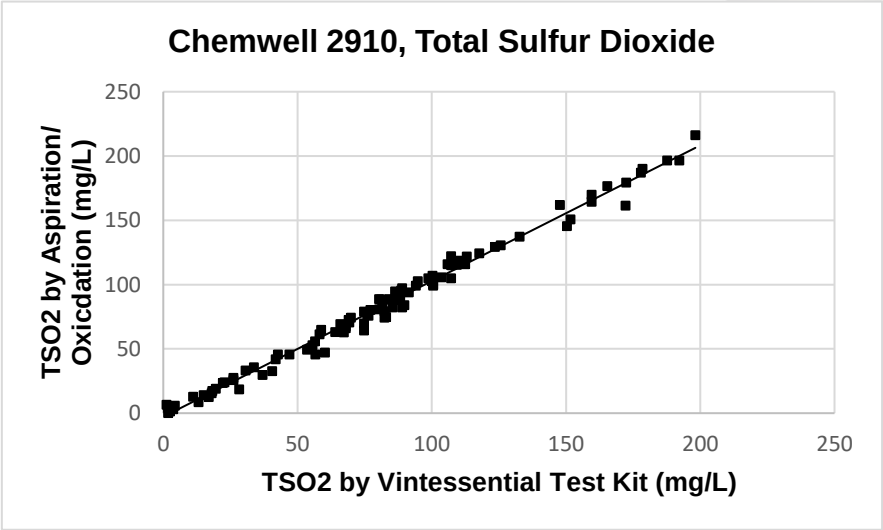
Average difference between test kit and aspiration/oxidation = 2 mg/L (SD 6 mg/L)

Correlation between test kit and aspiration/oxidation: $R^2 = 0.99$

Repeatability (CV) = 1.66 %
(SD) = 1.92 mg/L

LOQ = 11 mg/L

Linearity = 11 – 250 mg/L



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