

FACTSHEET: FREE SULFUR DIOXIDE SPECTROPHOTOMETER TEST KIT

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. This test kit is a fast and easy way to determine the amount of free sulfur dioxide in wine samples, without the need for the laborious setup associated with traditional methods. Additionally, unlike some other commercial products this test kit does not contain formaldehyde, which is a known carcinogen.

PRINCIPLE OF MEASUREMENT

The amount of sulfite present in wine is measured by monitoring the reaction with a chromogen under acidic 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 sulfite present.

TEST PERFORMANCE (n = 116)

Average difference between test kit and aspiration oxidation = 1 mg/L (SD 4 mg/L)

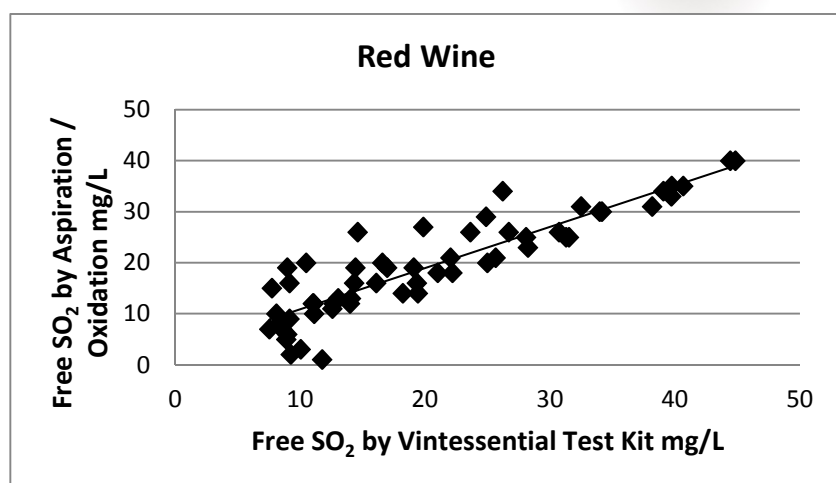
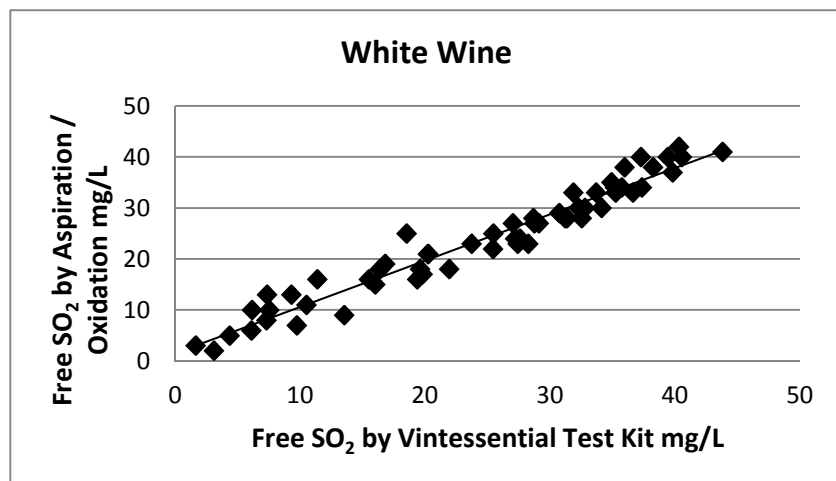
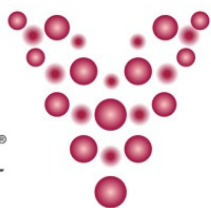
Correlation between test kit and aspiration oxidation: R^2 white wine = 0.95
 R^2 red wine = 0.80

Repeatability (CV) = 1.07%
(SD) = 0.28 mg/L

Reproducibility (CV) = 3.27%
(SD) = 0.87 mg/L

LOQ: white wine = 2 mg/L
red wine = 10 mg/L

Linearity = 2 – 50 mg/L



ITEMS REQUIRED BUT NOT SUPPLIED

	Item code*
100 mL volumetric flask	2F205
Semi-micro cuvettes	2C890
Spectrophotometer	2S120 / 2S140
Micropipette	2P399
Pipette tips	2P502
Parafilm	2P140
Distilled water	1W002 / 1W022

* *Vintessential items available within Australia only*

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