

FACTSHEET: FREE SULFUR DIOXIDE DISCRETE ANALYSER 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 THERMO ARENA (n = 101, white and red wines)

Average difference between test kit and aspiration oxidation = 1 mg/L (SD 2 mg/L)

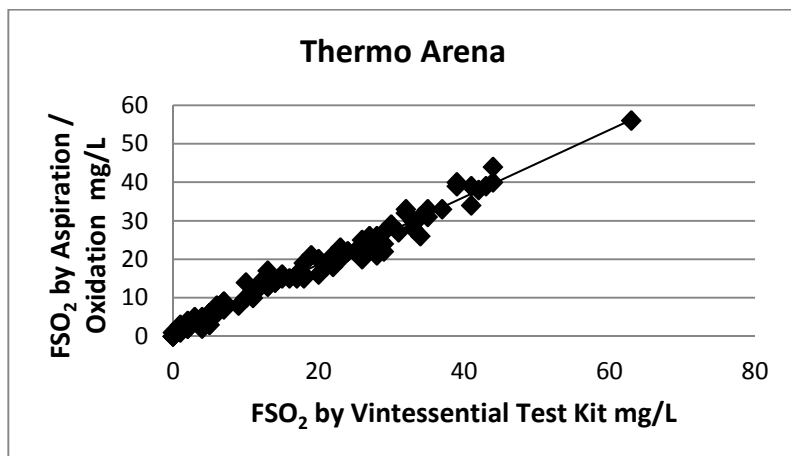
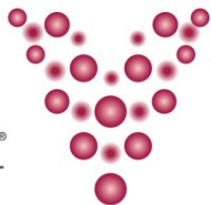
Correlation between test kit and aspiration oxidation: $R^2 = 0.97$

Repeatability (CV) = 2.47%
(SD) = 0.41 mg/L

Reproducibility (CV) = 3.38%
(SD) = 0.57 mg/L

LOQ = 1 mg/L

Linearity = 1 – 50 mg/L



TEST PERFORMANCE CHEMWELL-T (n = 111, white and red wines)

Average difference between test kit and aspiration oxidation = 1 mg/L (SD 2 mg/L)

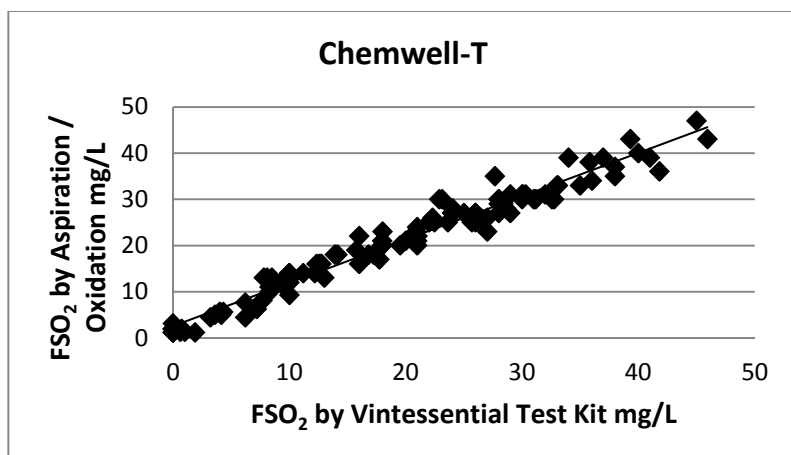
Correlation between test kit and aspiration oxidation: $R^2 = 0.96$

Repeatability (CV) = 1.71%
(SD) = 0.63 mg/L

Reproducibility (CV) = 4.89%
(SD) = 0.96 mg/L

LOQ = 1 mg/L

Linearity = 1 – 50 mg/L



© Vintessential Laboratories 2019. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior written permission of the publisher.