Sentia
Wine testing made easy

SENTIA™

Sentia: a wine analyzer for fast and reliable testing.

The Sentia analyzer is the most convenient wine analysis tool available to winemakers, laboratory scientists and cellar hands. Sentia is a portable, hand-held potentiostat that performs electrochemical detection methods, and is currently equipped to test 6 key wine analytes measured during the winemaking process:

- **Acetic acid**
- **Free SO^2**
- **Fructose**
- **Glucose**
- **Malic acid**
- **Titratable acidity**

How does Sentia work?

Originating from a pedigree of modern POC medical devices designed by Universal Biosensors, Sentia uses the same expertise in healthcare technology to deliver meaningful, accurate and consistent results for the wine industry in just minutes.

Specialized test strips unique to each test method have a series of widely recognized and researched industry common reagents dried down into a small reaction chamber contained within the strip. Once this test strip is inserted into the device and a single drop of sample is applied, the reagents will dissolve and react with the wine, all whilst the device delivers a voltage to the strip electrodes. Electrons are consequently transferred at the strip electrode surface, and the current generated from this exchange of electrons is measured using electrochemical techniques such as squarewave voltammetry and amperometry.

Machine based learning algorithms and calibration parameters generated from industry reference methods are then applied to give you a final result within minutes of sample application.

1. Power button.

2. Touch screen display.

3. Test strip eject button for mess free disposal.

4. Test strip port & protective cap for insertion of Sentia test strips and protection of hardware.

5. USB charge port.

Rapid results for fast decisions

Hand-held size lets you analyze in the winery

Upload results to a PC, tablet or phone via Wi-Fi

More than 100 tests achievable on a single charge

Affordable

Easy and intuitive for any team member

Auto calibrating

No hazardous chemicals for safe handling

Touchscreen

Reproducible results comparable to other test methods

Contact Grapeworks on **04 390 3577**
or email info@grapeworks.co.nz
Grapeworks.co.nz

grapeworks NZ

Test strip & measurement specifications

Acetic Acid	**Product code**	30730
	**Sample type**	Red or white wine
	Measurement range	0.1 to 1.5 g/L
	Test time	<3.5 min
	Dilution required	Yes (1 part sample, 3 parts deionized/distilled water)
	Coefficient of determination (R_2)*	0.91
	Standard error*	0.1 to 1.5 g/L = 0.05 g/L
	Repeatability	Red wine: 0.02 g/L; White wine: 0.04 g/L
Free SO_2	**Product code**	30230
	**Sample type**	Post-fermentation red or white wine
	Measurement range	3 to 50 mg/L
	Test time	<1 min
	Dilution required	No
	Coefficient of determination (R_2)	0.93
	Standard error	2.7 mg/L
	Repeatability	≤1.37 mg/L SD
Fructose	**Product code**	30530 (strips); 91004 (diluent)
	**Sample type**	Red or white wine
	Measurement range	0.1 to 10 g/L
	Test time	<2 min
	Dilution required	Yes (1 part sample, 4 parts Sentia fructose buffer)
	Coefficient of determination (R_2)*	0.1 to 10 g/L = 0.99
	Standard error*	0.1 to 1.0 g/L = 0.09 g/L; 0.1 to 10 g/L = 0.17 g/L
	Repeatability	0.1 to 5 g/L = ≤0.11 g/L SD; 5.1 to 10 g/L = ≤1.8% CV
Glucose	**Product code**	30330
	**Sample type**	Red or white wine
	Measurement range	0.1 to 10 g/L
	Test time	<1 min
	Dilution required	No
	Coefficient of determination (R_2)*	0.1 to 5 g/L = 0.97; 0.1 to 10 g/L = 0.99
	Standard error*	0.1 to 1.0 g/L = 0.13 g/L; 0.1 to 10 g/L = 0.18 g/L
	Repeatability	0.1 to 5 g/L = ≤0.05 g/L SD; 5.1 to 10 g/L = ≤1.0% CV
Malic Acid	**Product code**	30430 (strips); 91002 (diluent)
	**Sample type**	Red or white wine
	Measurement range	0.05 to 5 g/L
	Test time	<1 min
	Dilution required	Yes (1 part sample, 4 parts Sentia malic acid buffer)
	Coefficient of determination (R_2)	0.99
	Standard error	0.05 to 1 g/L = 0.065 g/L; 1 to 5 g/L = 6.75%
Titratable Acidity (pH 7.00 & 8.20)	**Product code**	30630
	**Sample type**	Red or white wine
	Measurement range	3 to 10 g/L
	Test time	<1 min
	Dilution required	No
	Coefficient of determination (R_2)*	pH 7.00 = 0.89; pH 8.20 = 0.87
	Standard error*	pH 7.00 = 0.25 g/L; pH 8.20 = 0.26 g/L
	Repeatability	Red wine: 0.07 g/L SD; white wine: 0.12 g/L SD

*Validated by the Australian Wine Research Institute (AWRI), Australia.