



# Guide to sample preparation for Sentia analysis

Some sample preparations are required for a small number of Sentia methods to achieve an accurate result.

This guide will detail:

1. The recommended procedure to dilute samples for malic acid and fructose methods using a unique Sentia buffer solution, prior to testing on the Sentia analyzer.
2. The recommended procedure for degassing samples with excessive carbon dioxide prior to testing on the Sentia analyzer.



### Measuring ranges

Free SO <sub>2</sub>	3 – 50 mg/L
Fructose	0.1 – 10 g/L
Glucose	0.1 – 10 g/L
Malic acid	0.05 – 5 g/L

### Materials and equipment required to analyse samples with Sentia

- Sentia analyzer
- Sentia test strips (specific to the analyte being tested)

For methods that require a dilution or a degassing step, the additional materials and equipment are required:

- Test tube with cap (plastic, size 5 mL or less recommended)
- Diluent solution
- Micropipette and micropipette tips (100 – 1000 µL recommended)

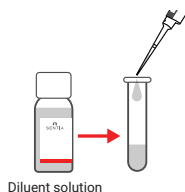
## Sample preparations

### Dilution instructions

Certain Sentia tests require sample dilution prior to analysis. This will be prompted by your Sentia analyzer as you move through the analysis test flow. It is recommended that you perform the dilution just before you perform the test. Refer to the below table to find information on tests that require a dilution and the dilution ratio to be used.

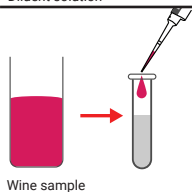
Test	Dilution solution required	Dilution explained	Recommended sample volume	Recommended diluent volume	Dilution expiry time
Free SO <sub>2</sub>	No buffering step required. Add the sample directly onto the porch of the strip as directed				
Malic acid	Sentia malic acid buffer	1 part wine : 4 parts malic acid buffer	100 µL	400 µL	Samples can be diluted up to 30 minutes before testing
Glucose	No buffering step required. Add the sample directly onto the porch of the strip as directed				
Fructose	Sentia fructose buffer	1 part wine : 4 parts fructose buffer	100 µL	400 µL	Samples can be diluted up to 30 minutes before testing

Note: Alternative dilution solutions should not be used. Refrain from combining buffer solutions from different bottles to avoid changes to the buffer concentration. Please check the buffer solution bottle for date of manufacture or best before date prior to use.



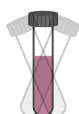
#### Step one:

Using a micropipette, accurately pipette the recommended volume of diluent solution into a clean test tube. Dispose of the used pipette tip and replace with another clean tip.



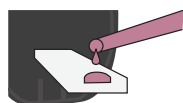
#### Step two:

Accurately pipette the recommended wine sample volume into the test tube. Dispose of the micropipette tip.



#### Step three:

Cap the test tube, and gently shake to mix.



#### Step four:

You now have a diluted wine sample ready to apply to the test strip.



#### Step five:

Dispose of buffer solutions down the sink with running water.

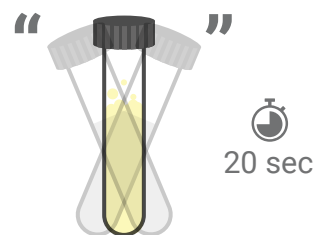
To see a video guide to sample dilutions, visit <https://www.universalbiosensors.com/products/sentia/resources/videos/>

## Degassing instructions

Formation of bubbles on the electrode surface results in the displacement of sample and may give an erroneous result.

Samples with visible effervescence should therefore be degassed first, for example by shaking the wine in a vessel for 20 seconds and allowing to vent.

Note: it is **NOT** recommended to degas samples prior to Free SO<sub>2</sub> analysis. Carbonated samples are not suitable for Free SO<sub>2</sub> testing on the Sentia.



## Further information

For translations visit [www.universalbiosensors.com/products/sentia/resources/](http://www.universalbiosensors.com/products/sentia/resources/)  
Please contact your supplier for buffer solution MSDS information.

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