



Basic Chemistry Panel for Winemaking - Panel 1

Once a wine has completed primary fermentation, the Basic Chemistry Panel for Winemaking is a useful tool as a general wine check-up. The panel covers baseline chemistry tests for assessing wine from fermentation through to finishing. The Basic Chemistry Panel is also recommended prior to barreling and bottling and at regular intervals during ageing.

Basic Chemistry Panel Includes:

- Alcohol (NIR or GC)
- Titratable Acidity (autotitrator)
- pH (autotitrator)
- Volatile Acidity (segmented flow analyzer)
- Free SO₂ (segmented flow analyzer)
- Total SO₂ (segmented flow analyzer)
- Malic Acid (enzymatic)
- Glucose/Fructose (enzymatic)

Components of the Panel

The test for **Alcohol** will determine how primary fermentation has progressed. It is important to know the alcohol concentration because it can have an effect on malolactic fermentation and sensory attributes. Typically the sample is tested by Near Infrared (NIR), but may be analyzed by Gas Chromatograph (GC) under certain sample conditions, such as high alcohol.

Titratable Acidity (TA) is the concentration of available hydrogen ions present in the sample. Low titratable acidity causes wine to taste flat, while high acidity results in tart or sour wine. The test for TA is run on an autotitrator to ensure accuracy and consistency.

The **pH** test is the most important test to determine the general “health” of a wine. The pH level will indicate the level of monitoring needed for microbiological growth, and can effect color, SO₂ additions and malolactic fermentation.

Volatile Acidity (VA) establishes a baseline for the monitoring of potential spoilage problems. If VA increases over time, spoilage organisms are possibly present.

Testing for both **Free and Total SO₂** throughout the winemaking process is essential. SO₂ aids in the prevention of oxidation and spoilage.

The **Malic Acid** test is needed to determine the status of malolactic fermentation (MLF).

Testing **Glucose/Fructose** follows the course of primary fermentation. It is useful for determining potential alcohol and residual sugar.

Sampling

The panel requires at least 500mL of sample. Minimal headspace is essential. Please send samples in plastic containers only. Complementary plastic sample bottles are available from all three Vinquiry locations. Please call the phone number below to have sample bottles shipped to you.

For further information on the Basic Chemistry Panel for Winemaking please call 707-838-6312.