

Titratable Total Acidity Mini Titrator

For the Determination of Titratable Total Acidity for Wine Analysis

Titratable Total Acidity

Acids occur naturally during the growing of grapes as part of the fermentation process. Wines show lower levels of acid when there are hot growing seasons or when the grapes come from hotter regions. In the proper proportion, acids are a desirable trait and give the wine character.

The three predominant acids in wine are tartaric, malic, and citric, all of which are intrinsic to the grape. Tartaric acid is the principal acid in grapes and is a component that promotes a crisp flavor and graceful again in wine. A moderate amount of a wine's acid comes from malic acid, which contributes to fruitiness, and a small amount comes from citric acid. Wine also contains trace amounts of other acids. The least desirable acid in wine is acetic acid, which, when present in more than a nominal amount, gives wine a sour vinegary aspect.

Total acidity, also called, titratable acidity, is the sum of the fixed and volatile acids. In the United States the total acidity is usually expressed in terms of tartaric acid, even though the other acids are measured.

Total acidity directly affects the color and flavor of wine and, depending on the style of the wine, is sought in a perfect balance with the sweet and bitter sensations of other components. Too much acidity makes wine tart and sharp; too little makes wines flat, flabby and uninteresting. Proper acidity in wine is what makes it refreshing and an ideal accompaniment to food.

The proper acid level of a wine varies, with sweeter wines generally requiring somewhat higher levels to retain the proper balance. For dry table wine the acceptable range is usually 0.60 to 0.75%; for sweet wine it's 0.70 to 0.85%.

ORDERING INFORMATION

HI 84102-01 (115V) and **HI 84102-02** (230V) is supplied with reagent set for 20 titrations, 2000 µL automatic pipette, plastic tips for 2000 µL automatic pipette (2), 50 mL beakers (2), tube set with cap, pH electrode, temperature probe, stir bar, power cable, 30 mL bottle of refill solution, mL syringe (1), wine deposits cleaning solution sachets (2), wine stain cleaning solution sachets (2) and instruction manual.

ELECTRODES

HI 1048B pH Electrode
HI 7662-T Temperature Probe



- Titrator, magnetic stirrer, electrode & reagent holder in one compact unit
- Results in minutes • Simple to operate

SPECIFICATIONS

HI 84102 mini Titrator

Range	0.0 to 25.0 g/L of tartaric acid
Resolution	0.1 g/L
Accuracy	5% of reading
Method	Acid-base titration method
Principle	End-point titration
pH Calibration	1 point in selected end-point: 7.00 pH or 8.20 pH
Sample Volume	2 mL
Temperature Compensation	Automatic from 0.0 to 100.0°C
pH Electrode	HI 1048B (included)
Temperature Probe	HI 7662-T (included)
Pump Dosing	0.5 mL/min
Stirring Speed	1500 rpm
Environment	0 to 50°C (32 to 122°F); max 95% RH non-condensing
Power Supply	115V/230 Vac; 50-60Hz; 10VA
Dimensions	208 x 214 x 163 mm (8.2 x 8.4 x 6.4") (with beaker)
Weight	2200 g (77.6 oz.)

SOLUTIONS

HI 70300L Electrode storage solution, 500 mL
HI 70635 Cleaning solution for wine deposits, 500 mL
HI 70636 Cleaning solution for wine stains, 500 mL
HI 7082 Electrode filling solution, 30 mL (4)
HI 84102-50 Titrant solution, 110 mL
HI 84102-55 Calibration standard, 100 mL
HI 84102-60 Buffer solution 1, pH 7.00, 500 mL
HI 84102-61 Buffer solution 2, pH 8.20, 500 mL

ACCESSORIES

HI 70483T Tube set with cap for titrant bottle and tip
HI 731316 Stir bar (5)
HI 731342 Automatic pipette 2000 µL
HI 731352 Tips for 2000 µL automatic pipette (4)
HI 740036P Beaker 50 mL (10)
HI 7662-T Temperature probe