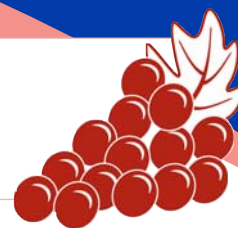




Mi451 - Photometer

for the determination of COPPER in wine analysis



Mi451 is a user-friendly photometer for monitoring copper in wine and will give you direct readings in mg/L, with a range of 0.00 to 0.50 mg/L. This instrument provides greater resolution, better accuracy and immediate results.

It is important to monitor copper in wine because concentrations of copper higher than 1 mg/L can be considered toxic. When found in higher levels, copper plays an important role in catalyzing oxidation of wine phenols. Excessive levels of copper in wine can be removed or reduced by treatment of potassium ferrocyanide (see the table below).

Milwaukee's Wine - Photometer are manufactured for easy use, are practical and accurate. Ideal for laboratory use.

The photometer has an advanced optical system based on a special tungsten lamp and a narrow band interference filter that allows most accurate and repeatable readings. The instruments is factory calibrated.



Step 2

Insert the cuvet in the photometer, zero the instrument and see the respective reading on LCD.



Step 1

Prepare two sample to be measured with wine and reagents and fill the cuvet.



Accessories

- Mi551-020 Copper reagent set (20 tests)
- Mi0004 Tissue for wiping cuvetts (4 pcs)
- Mi0007 20 mL glass vials with cap (2 pcs)
- Mi0011 10 mL glass small cuvetts (2 pcs)
- Mi0014 Caps for cuvetts for wine colorimeters (2 pcs)
- Mi0013 Stopper 10 mL small cuvetts (2 pcs)
- Mi0006 Battery 1.5V AA (4 pcs)



Ordering Information

Mi451 is supplied complete with:
Reagents for 20 tests, 1 mL short pipette, 3 mL pipette, 2 spoons, 2 small cuvetts with cap, stopper 10 mL small cuvetts, 2 x 20 mL glass vials with cap, tissue for wiping cuvetts, 4 x 1.5V AA batteries and instruction manual.



Mi451	Copper
Range	0.00 to 1.50 mg/L
Accuracy	typical ±5%
Light Source	tungsten lamp with narrow band interference filter @ 560 nm
Sensor	silicon photocell
Method	extraction method 2.2 bichinoline
Environment	0 to 50°C; max RH 95%
Battery Type	4 x 1.5V AA (included)
Auto-off	after 15 minutes of non-use
Dimensions	225 x 85 x 80 mm
Weight	0.5 Kg

Copper elimination with potassium ferrocyanide treatment

Wine before treatment		Wine after Fe(CN) ₆ K ₄ treatment (blue fanning)
Iron (mg/L)	Copper (mg/L)	Copper (mg/L)
20	5	0.2
10	5	0.5
5	5	1.0
2.5	5	1.5
1	5	2.0
Small traces	5	3.0