

HI97751

# Sulfate Portable Photometer

- **Advanced LED optical system**
  - Innovative optical design that utilizes a reference detector and focusing lens to eliminate errors from changes in the light source and from imperfections in the glass cuvette.
  - LEDs have a much higher luminous efficiency, providing more light while using less power. They also produce little heat, which could otherwise affect electronic stability.
- **CAL Check™**
  - Validate instrument performance at any time using CAL Check cuvettes made with NIST traceable standards. The CAL Check screen guides the user step-by-step through the validation process and user calibration.
- **On-screen tutorial mode with animations**
  - Guides users step-by-step through the measurement process
- **Waterproof and floating IP67 case**
- **Unit of measure is displayed along with reading**
- **Built-in timer**
  - Built-in reaction timer that ensures consistency between tests.
- **Error messages on display**
  - Alerts to problems including no cap, high zero, and standard too low
- **GLP data**
  - Displays the last calibration date.
- **Auto logging**
- **Battery status indicator**
- **Auto-shut off**

## Significance of Use

Sulfate is naturally present within waters at different concentrations. However, sulfate concentrations are kept within strict ranges for drinking water, since this value can become high near mine drainage points. Sulfate is also rigorously tested in the production of beverages such as beer, due to its significant effect upon odor and taste. Sulfate is also rigorously tested in the production of beverages such as beer, due to its significant effect upon odor and taste.



Specifications	HI97751 Sulfate	
Measurement	Range	0 to 150 mg/L (ppm) (as SO <sub>4</sub> <sup>2-</sup> )
	Resolution	1 mg/L
	Accuracy @25°C (77°F)	±5 mg/L ±3% of reading
	Method	adaptation of the turbidimetric method; sulfate is precipitated with barium chloride crystals and light absorbance of the suspension is measured
Measurement System	Light Source	light emitting diode
	Bandpass filter	466 nm
	Bandpass filter bandwidth	8 nm
	Bandpass filter wavelength accuracy	±1.0 nm
	Light Detector	silicon photocell
Additional Specifications	Cuvette type	round 24.6 mm diameter (22 mm inside)
	Auto logging	50 readings
	Display	128 x 64 pixel B/W LCD with backlight
	Auto-off	after 15 minutes of inactivity (30 minutes before a READ measurement)
	Battery type / Life	alkaline 1.5 V AA (3) / > 800 measurements (without backlight)
	Environment	0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable
	Dimensions	142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")
Weight	380 g (13.4 oz.)	

**HI97751** is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual.

CAL Check standards and testing reagents sold separately

## Ordering Information

**HI97751C** includes photometer, CAL Check standards, sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), scissors, cuvette wiping cloth, CAL Check standard certificate, instrument quality certificate, instruction manual, and rigid carrying case.

Reagents sold separately

Reagents and Standards	HI97751
	<b>HI97751-11</b> CAL Check standard cuvettes for sulfate
	<b>HI93751-01</b> sulfate reagents for 100 tests
	<b>HI93751-03</b> sulfate reagents for 300 tests