

HI3874

Nitrate Test Kit

The HI3874 is a colorimetric chemical test kit that determines the nitrate concentration in samples within a 0 to 50 mg/L (ppm) range as nitrate-nitrogen ($\text{NO}_3\text{-N}$). The HI3874 is supplied with all of the necessary reagents and equipment to perform the analysis. The test kit contains enough reagents for perform approximately 100 tests.

- **Complete setup**
 - All required materials are included with the test kit, such as the glass cuvette, color comparison cube, and reagent packets.
- **High resolution**
 - Readings from 0 to 50 mg/L are determined to 10 mg/L resolution.
- **Replacement reagents available**
 - There is no need to buy a new kit when reagents are exhausted. The HI3874-100 can be ordered to replace the reagents supplied with the kit.

Significance of Use

Nitrogen is abundant in the Earth's atmosphere and is present in water in the form of nitrate, nitrite, and ammonia. Plants use nitrogen as a nutrient to build proteins by tracking it in through their root system. Nitrate is formed in water mainly through rainfall, decomposition of organic matter, and runoff from manmade pollutants such as sewage waste and fertilizers. Almost all surface waters have a measurable level of nitrate, and a moderate amount is considered beneficial. Large amounts of nitrate, however, can lead to eutrophication which may result in decreased levels of dissolved oxygen in the water.



Specifications	HI3874 Nitrate (as $\text{NO}_3\text{-N}$)
Type	colorimetric
Range	0-50 mg/L (ppm)
Smallest Increment	10 mg/L (ppm)
Method	cadmium reduction
Number of Tests	100 avg.
Ordering Information	HI3874 test kit comes with 100 packets nitrate reagent, glass cuvette and color comparison cube.
Reagent	HI3874-100 nitrate (as $\text{NO}_3\text{-N}$), 100 tests avg.

HI38050

Nitrate Test Kit

for Soil and Irrigation Water

The Hanna HI38050 nitrate test kit for soil and irrigation water makes it possible to determine the need for nitrogen fertilization. It also obtains the best crop response and avoids over-fertilization.

Nitrate is reduced to nitrite in the presence of cadmium. The nitrite thus produced reacts with the reagent to yield an orange compound. The amount of color developed is proportional to the concentration of nitrate present in the aqueous sample.

The Hanna nitrate-nitrogen test can be performed the whole year round, but testing is particularly recommended during spring and late spring, when rainfall and temperature-related bursts of microbiological activity often have great influence on the availability of nitrate-nitrogen.



Specifications	HI38050 Nitrate (as $\text{NO}_3\text{-N}$) in irrigation water and soil
Type	checker disc
Range	water: 0-50 mg/L (ppm) soil: 0-60 mg/L (ppm)
Smallest Increment	water: 1 mg/L (ppm) soil: 2 mg/L (ppm)
Method	cadmium reduction
Number of Tests	water: 100 avg. soil: 100 avg.
Ordering Information	HI38050 test kit comes with 200 packets nitrogen reagent, checker disc, glass vials with caps (2), 10 g calcium sulfate, demineralizer bottle with filter cap for 12 L, soil sieve, 50 mL plastic test tube with screw cap, large funnel, 100 paper filter discs, brush, 50 mL calibrated vessels (2), 2 g sample cup, 3 mL plastic pipette and spoons (2).
Reagent	HI38050-200 nitrate, soil and irrigation (as $\text{NO}_3\text{-N}$), 200 tests avg.