

Chemical Test Kits Ammonia

HI 3824 Ammonia Test Kit for Fresh Water

This HANNA ammonia portable test kit determines the ammonia concentration in water in several easy steps. The Nessler reagent reacts with ammonia, under strong alkaline conditions, to form a yellow colored complex.

HI 3826 Ammonia Test Kit for Sea Water

The HANNA ammonia portable test kit determines the ammonia concentration in water in several easy steps. The ammonia level in mg/L (or ppm), ammonia as nitrogen is determined by a colorimetric method. The Nessler reagent reacts with ammonia, under strong alkaline conditions, to form a yellow colored complex (see equation below). An addition of Reagent 1 for Sea Water inhibits precipitation of calcium and magnesium ions due to the presence of the alkaline Nessler reagent. The color intensity of the solution determines the ammonia concentration



HI 38049 Ammonia Test Kit for Fresh Water

The HI 38049 test kit measures ammonia nitrogen concentration up to 3 ppm in fresh waters, employing the Nessler colorimetric method. Ammonia reacts with the reagent in basic solution to form a yellow compound. The absorbance of this colored product is proportional to the concentration of ammonia-nitrogen present in the aqueous sample.

ORDERING INFORMATION

HI 3826 test kit comes with 20 mL plastic beaker, color comparison cube, 20 mL ammonia reagent 1 (for sea water) and 20 mL Nessler reagent.

HI 3824 test kit comes with 20 mL plastic beaker, color comparison cube, 20 mL ammonia reagent 1 (for fresh water) and 20 mL Nessler reagent

HI 38049 test kit comes with 20 mL ammonia reagent (for fresh water), 20 mL Nessler reagent, checker disc, glass vials with caps (2) and 3 mL plastic pipette.

ACCESSORIES

HI 3826

HI 3826-025 Spare reagent for 25 tests

HI 3824

HI 3824-025 Spare reagent for 25 tests

HI 38049

HI 38049-100 Spare reagent for 100 tests



HI 3826 Ammonia in salt water

Ammonia - nitrogen, in the form of NH_3 and NH_4^+ , is often present in water as a component of the nitrogen cycle. In the metabolism of proteins and amino acids, many heterotrophic bacteria, actinomycetes, and fungi (occurring in both soil and water) excrete what for them is excess nitrogen: ammonia. Generally, in unpolluted waters, ammonia and ammonium compounds occur in relatively small quantities, on the order of 0.1 mg/L, while higher levels usually indicate organic pollution. Ammonia is also recognized to be toxic diatoms in the 7.4-8.5 pH range at a level of 1.1 mg/L, and to fish, in the same pH range, at a level of 2.5 mg/L.

In nature, the ammonia level in water can vary. Ground water normally contains ammonia due to bacterial decay of plants and animals. However, the presence of ammonia in surface water may be evidence of sanitary pollution due to waste discharges or natural causes.

Ammonia is commercially used as a fertilizer, either as such or in the form of compounds. Its presence in raw surface waters indicates animal or plant microbiological decay, and it is toxic to fish above certain critical levels.

METHOD	RANGE	SMALLEST INCREMENT	CHEMICAL METHOD	# TESTS	WEIGHT
HI 3824 Ammonia (as NH_3-N) in fresh water					
colorimetric	0.0-2.5 mg/L (ppm)	0.5 mg/L (ppm)	Nessler	25 avg.	180 g
HI 3826 Ammonia (as NH_3-N) in salt water					
colorimetric	0.0-2.5 mg/L (ppm)	0.5 mg/L (ppm)	Nessler	25 avg.	180 g
HI 38049 Ammonia (as NH_3-N) in fresh water					
checker disc	0.0-3.0 mg/L (ppm)	0.1 mg/L (ppm)	Nessler	100	248 g