visocolor®ECO



Nitrate

Test kit for performing colorimetric tests on nitrate ions in surface water and sewage

wetnoa

Nitrate ions are reduced to nitrite ions in an acidic medium. Combined with a suitable aromatic amine, these form an orange-yellow azo dye.

Measurement range:

1-120 mg/L NO₃

Contents of test kit (*refill pack):

sufficient for 110 tests

- 30 mL NO₃-1
- 5 g NO₃-2*
- 1 measuring spoon 70 mm*
- 2 screw-plug measuring glasses
- 1 slide comparator
- 1 color chart
- 1 plastic syringe 5 mL
- 1 instructions for use'

Hazard warning:

Information regarding safety can be found on the box' label and in the safety data sheet. You can download the SDS from www.mn-net.com/SDS.

Instructions for use:

also refer to the pictogram on the back of the color chart

 Pour a 5 mL water sample into each of the measuring glasses using the plastic syringe.

Place a measuring glass on position A in the comparator.

Only add the reagent to measuring glass B.

- 2. Add 5 drops of NO_3 -1, seal the glass and mix.
- 3. Add 1 level measuring spoonful of NO_3 -2, seal the glass and immediately shake the mixture well for 1 min.
- Open the glass after 5 min and place it on position B in the comparator.
- Slide the comparator until the colours match in the inspection hole on top. Check the measurement reading in the recess on the comparator reed. Mid-values can be estimated.
- After use, rinse out both measuring glasses thoroughly and seal them.

The reagents can be used for the **photometric evaluation** with photometer PF-12/PF-12 Plus .

This technique can be used also for analyzing sea water (see "Conversion table").

Disposing of the samples:

Information regarding disposal can be found in the safety data sheet. You can download the SDS from *www.mn-net.com/SDS*.

Interferences:

Depending on their concentration, oxidizing substances may reduce the measurement reading or suppress the reaction totally. Chlorine ≤ 10 mg/L does not interfere.

Nitrite interferes (same reaction). This can be circumvented by addition of amido sulphonic acid (REF 918 973).

The water sample should be between 18 and 30 °C. At lower temperatures the reaction takes place at a significantly slower rate, and the results are limited.

Conversion table:

mg/L I	NO ₃ ⁻	mg/L NO ₃ -N (Nitrate nitrogen)	mmol/m ³	mg/L NO ₃ ⁻ in sea water
	1	0.2	16	1
	3	0.7	48	3
	5	1.1	81	5
1	0	2.3	160	12
2	0	4.5	320	25
3	0	6.8	480	40
5	0	11	810	65
7	0	16	1130	95
9	0	20	1450	120
12	Λ	27	1940	160

Storage:

Store the test kit in a cool (< 25 °C) and dry place.