

Nitrite

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

Method:

Sulfanilamide is diazotized by nitrite in acidic solution. The diazonium salt is coupled with a naphthylamine to form a reddish-violet azo dye.

Measurement range:

0.02–0.5 mg/L NO₂⁻

Contents of test kit (*refill pack):

sufficient for 120 tests

- 30 mL NO₂-1*
- 5 g NO₂-2*
- 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:

This test does not contain any hazardous substances which must be specially labelled as hazardous.

Instructions for use:

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

1. 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 **4 drops of NO₂-1**, seal the glass and mix.
3. Add **1 level measuring spoonful of NO₂-2**, seal the glass and shake the mixture until the powder has dissolved.
4. Open the glass after **10 min** and place it on position B in the comparator.
5. Slide the comparator until the colors match in the inspection hole on top. Check the measurement reading in the recess on the comparator reed. Mid-values can be estimated.
6. After use, rinse out both measuring glasses thoroughly and seal them.

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

This technique can be used also for analyzing sea water.

Disposing of the samples:

The used analysis specimens can be flushed down the drain with tap water and channelled off to the local sewage treatment works.

Interferences:

Chromium(VI) and iron(III) ions present in excess of 3 mg/L simulate nitrite values which are too high. Chlorine interferes even in minute concentrations.

Conversion table:

mg/L NO ₂ ⁻	mg/L NO ₂ -N (nitrite nitrogen)
0.02	0.006
0.03	0.009
0.05	0.015
0.07	0.021
0.1	0.03
0.2	0.06
0.3	0.09
0.5	0.15

Storage:

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