visocolor® ECO

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Iron

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

Method:
Combined with a triazine derivative, iron(II) ions form a violet complex. Iron(III) ions are also identified by means of a prior reduction with Fe-2.

Measurement range:
0.04 - 1.0 mg/l Fe

Contents of test kit (*refill pack):
sufficient for 100 tests

17 ml	Fe-1*
5 g	Fe-2*
1	measuring spoon 70 mm*
2	screw-plug measuring glasses
1	slide comparator
1	colour chart
1	plastic syringe 5 ml
1	instructions for use*

Hazard warning:
This test does not contain any harmful substances which must be specially labelled as hazardous.

Instructions for use:
also refer to the pictogram on the back of the colour 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 Fe-1**, seal the glass and mix.
3. Add **1 level measuring spoonful of Fe-2**, seal the glass and shake the mixture until the powder has dissolved.
4. Open the glass after **7 min** and place it on position B in the comparator.
5. 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.
6. After use, rinse out both measuring glasses thoroughly and seal them.
7. The iron(II) ion content is ascertained by carrying out the analysis without Fe-2.

The reagents can also be used for the **photometric evaluation** with photometer PF-11.

This technique can be used also for analysing 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:
Copper(I) ions present in excess of 0.3 mg/l form a grey-violet complex and disrupt the iron test. Nickel ions present in excess of 0.5 mg/l lead to reduced findings. Cobalt ions and molybdate ions present in excess of 0.5 mg/l disrupt the iron test by forming a yellow complex compound. Nitrite ions present in excess of 20 mg/l disrupt the test by turning the specimen yellowish-red.

Conversion table:

mg/l Fe	mmol/m^3
0.04	0.7
0.07	1.3
0.10	1.8
0.15	2.7
0.20	3.6
0.30	5.4
0.50	9.0
1.0	18

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

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