

## Overview

The test is suitable for the photometric determination of DEHA. The test is suitable for boiler feed water and cooling water.

- Measuring range: 0.05 – 1.00 mg/L DEHA (method 0351)
- Number of tests: 20
- Wavelength for photometric determination: 540/560 nm
- Shelf life: 12 months
- Storage temperature: 15 – 25 °C
- Storage conditions: upright

## Method

Photometric determination of the resultant iron(II) ions through the reduction behaviour of diethylhydroxylamine (DEHA) on iron(III) ions after heating to 100 °C for 15 minutes.

## Interferences

Iron(II) ions interfere with the determination. This error can be taken into account as follows: estimation of a 2nd measured value without heating for 15 minutes and deduction of this value from the result.

The method can be applied for analyzing seawater.

## Reagents and accessories

Contents of reagents set:

- 20 test tubes R0
- 1 NANOFIX R2

Required devices:

- MACHEREY-NAGEL photometer
- MACHEREY-NAGEL heating block
- Digital piston pipette 1 – 5 mL (REF 916909) with pipette tips (REF 916916)
- Tweezers for sampling NANOFIX capsules (REF 916114)

## Sampling and preparation

See DIN EN ISO 5667-3-A21.

Adjust to pH 6 – 8 prior to analysis.

## Quality control

The measurement of a blank value and a standard is recommended before every measuring series as quality control measure.

LOT-specific certificates are available at [www.mn-net.com](http://www.mn-net.com).

## Procedure

1. Open test tube. Pipette 4 mL of sample into test tube
2. Seal test tube and shake vigorously
3. Heat for 15 min at 100 °C
4. Take the tube from the heating block. Cool to room temperature
5. Open test tube. Add 1 NANOFIX R2
6. Seal test tube and shake vigorously
7. Wait 10 min
8. Clean outside of test tube
9. Measure

## Notes

When using other photometers, make sure measurements are possible in test tubes (16 mm OD) and calibrate the method.

Test a sample of distilled water (REF 918932) to generate a blank value for the reagent.

Use the correction value when measuring cloudy or colored samples (see photometer handbook).

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[www.mn-net.com](http://www.mn-net.com)

**MACHEREY-NAGEL**



MACHEREY-NAGEL GmbH & Co. KG  
Valenciennr Str. 11  
52355 Düren · Germany

DE Tel.: +49 24 21 969-0 info@mn-net.com  
CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
US Tel.: +1 888 321 62 24 sales-us@mn-net.com

