

# Dip & Read Tests

Test papers • Test strips



Accurate • Rapid • Easy

**Dip & Read Tests for more than 40 substances**

- pH indicators
- semi-quantitative tests
- qualitative tests

**MACHEREY-NAGEL**

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



## Welcome

MACHEREY-NAGEL is a privately owned company that was founded in 1911. We follow long term strategies to supply our customers with the best solutions for special analytics. Our distributors and their customers can be sure, that our current products will remain available and that we will add additional value in the future.

We commit ourselves to the outstanding quality of our products. To ensure this, all our rapid tests are developed and produced in Düren, Germany. Already since 1996 we are certified according to EN ISO 9001. Users in the field realize that their results will have the same quality whenever they test.

For optimal support of our customers, a team of professionals in analytical chemistry serves all areas, from R&D to Production and Sales & Marketing. Distributors and their customers appreciate our competence and flexibility.



## Test papers and test strips

Our test papers and test strips allow the identification or semi-quantitative determination of more than 40 different substances. Professional analysts as well as chemical laymen appreciate these tests because they are

**Easy.** For the user, most of the tests are simply “Dip & Read” although they use complicated chemical systems.

**Rapid.** Whenever immediate results are asked for, test papers or test strips are the ideal choice. These tests are especially useful for on-site analysis.

**Accurate.** High quality color charts on the semi-quantitative tests ensure optimal results.



## OEM, private label and special presentations

The majority of the test papers and test strips that leave our production carry a brand other than MACHEREY-NAGEL.

**Private label** presentations are appreciated by our partners because they increase the awareness for their businesses. Our professional in-house design group creates private label artwork that meets and often exceeds the highest expectations. This ensures the consistent high quality of the finished goods and makes creating your own brand as **easy as 1-2-3**.

**Special presentations** are mainly used for promotional purposes. Individually sealed test strips are the **ideal choice for mailings**, journals or as giveaways to support product promotions. Almost all test strips and pH-indicators can be provided single sealed.

**OEM products** are manufactured for many different markets. Our partners have detailed knowledge about the demands for their specific markets. They know what products can be successful. Based on a close cooperation we convert their ideas with our underlying technology and capability into optimal products. Together, we develop innovative products, that often find a “non-compete” market. Thus, OEM-products developed and manufactured by MACHEREY-NAGEL are highly **successful**.



**Aquaculture**



QUANTOFIX® Multistick for aquarium owners

AQUADUR®  
pH-Fix  
QUANTOFIX® Ammonium  
QUANTOFIX® Carbonate hardness  
QUANTOFIX® Nitrate / Nitrite

**Laboratories and industry**



PEHANON®

pH-Fix  
Potassium iodide starch paper  
QUANTOFIX® Chloride  
QUANTOFIX® Peroxide  
QUANTOFIX® EDTA  
Universal indicator paper

**Dairy**



Peroxtesmo MI  
pH-Fix  
Phosphatesmo MI  
QUANTOFIX® Peroxide  
WATOR

**Medical applications**



pH-Fix 3.6–6.1  
pH-Fix 4.5–10  
QUANTOFIX® Peroxide 100  
Medi-Test product range (see Medi-Test brochure)

**Electroplating**



PEHANON®  
pH-Fix

QUANTOFIX® Chromate  
QUANTOFIX® Copper  
QUANTOFIX® Cyanide  
QUANTOFIX® Nickel  
QUANTOFIX® Nitrate  
QUANTOFIX® Zinc

**Education**



AQUADUR®  
Litmuspaper

Oil test paper  
pH-Fix  
Potassium iodide starch paper  
Universal indicator paper  
QUANTOFIX® Nitrate / Nitrite  
QUANTOFIX® Ammonium

**Metal workshops**



AQUADUR®  
pH-Fix  
QUANTOFIX® Nitrate  
QUANTOFIX® Nitrite  
QUANTOFIX® LubriCheck

**Authorities, fire brigades, police**



Cyantesmo  
Fluoride test paper  
Oil test paper

Peroxtesmo KM  
pH-Fix  
Plumbtesmo  
Phosphatesmo KM  
Potassium iodide starch paper  
QUANTOFIX® Arsenic 10  
QUANTOFIX® Nitrate / Nitrite

**Food processing industry**



Chlorine Test  
INDIPRO  
Medi-Test Glucose  
Peroxtesmo KO  
pH-Fix

QUANTOFIX® Ascorbic acid  
QUANTOFIX® Calcium  
QUANTOFIX® Carbonate hardness  
QUANTOFIX® Chloride  
QUANTOFIX® Nitrate / Nitrite  
QUANTOFIX® Peroxide  
QUANTOFIX® Phosphate  
QUANTOFIX® QUAT  
QUANTOFIX® Sulfite

## pH-Fix – unmatched pH test strips

pH-Fix is a high quality, color-fixed pH test strip. For many years it has been very popular among professional analysts as well as chemical laymen.

Benefits:

### Long handle

It prevents fingers from coming into contact with the sample. This adds handling convenience and **increases safety** of operation.

### Color-fixed reactive pads

To prevent bleeding, the pH-indicator is chemically bound to the cellulose fiber. This **effectively protects the sample** against contamination and enables measurements even in weakly buffered or strongly alkaline solutions.

### Brilliant color chart

Four different color blocks for each pH-value (pH-Fix 0–14) enable **highly precise pH-determination** and make the application rapid and reliable.



## pH-Fix PT – convenient PlopTop tubes

pH-Fix PT is an alternative packaging for pH-Fix test strips, especially developed for convenience and safety in everyday lab work

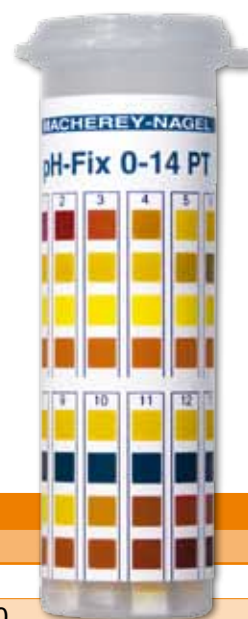
Benefits:

### PlopTop closure

The cap of the tube can be easily opened and closed with the thumb. This makes working with pH-Fix PT **comfortable and relaxing**.

### Heavy duty tubes

pH-Fix PT comes in virtually unbreakable HDPP tubes that provide an **especially safe** packing.



Test	Gradation	REF
<b>Classic flat box with 100 test strips 6 x 85 mm</b>		
pH-Fix 0–14	0 · 1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11 · 12 · 13 · 14	921 10
pH-Fix 0.0–6.0	0 · 0.5 · 1.0 · 1.5 · 2.0 · 2.5 · 3.0 · 3.5 · 4.0 · 4.5 · 5.0 · 5.5 · 6.0	921 15
pH-Fix 2.0–9.0	2.0 · 2.5 · 3.0 · 3.5 · 4.0 · 4.5 · 5.0 · 5.5 · 6.0 · 6.5 · 7.0 · 7.5 · 8.0 · 8.5 · 9.0	921 18
pH-Fix 4.5–10.0 <b>CE</b> <sup>1)</sup>	4.5 · 5.0 · 5.5 · 6.0 · 6.5 · 7.0 · 7.5 · 8.0 · 8.5 · 9.0 · 9.5 · 10.0	921 20
pH-Fix 6.0–10.0	6.0 · 6.4 · 6.7 · 7.0 · 7.3 · 7.6 · 7.9 · 8.2 · 8.4 · 8.6 · 8.8 · 9.1 · 9.5 · 10.0	921 22
pH-Fix 7.0–14.0	7.0 · 7.5 · 8.0 · 8.5 · 9.0 · 9.5 · 10.0 · 10.5 · 11.0 · 11.5 · 12.0 · 12.5 · 13.0 · 13.5 · 14.0	921 25
pH-Fix 0.3–2.3	0.3 · 0.7 · 1.0 · 1.3 · 1.6 · 1.9 · 2.3	921 80
pH-Fix 1.7–3.8	1.7 · 2.0 · 2.3 · 2.6 · 2.9 · 3.2 · 3.5 · 3.8	921 90
pH-Fix 3.1–8.3 <b>CE</b> <sup>1)</sup>	3.1 · 3.5 · 3.9 · 4.3 · 4.7 · 5.1 · 5.5 · 5.9 · 6.3 · 6.7 · 7.1 · 7.5 · 7.9 · 8.3	921 35
pH-Fix 3.6–6.1 <b>CE</b> <sup>1)2)</sup>	3.6 · 4.1 · 4.4 · 4.7 · 5.0 · 5.3 · 5.6 · 6.1	921 30
pH-Fix 5.1–7.2	5.1 · 5.4 · 5.7 · 6.0 · 6.3 · 6.6 · 6.9 · 7.2	921 40
pH-Fix 6.0–7.7	6.0 · 6.4 · 6.7 · 7.0 · 7.3 · 7.7	921 50
pH-Fix 7.5–9.5	7.5 · 7.9 · 8.2 · 8.4 · 8.6 · 8.8 · 9.1 · 9.5	921 60
pH-Fix 7.9–9.8	7.9 · 8.3 · 8.6 · 8.9 · 9.1 · 9.4 · 9.8	921 70
<b>PlopTop tube with 100 test strips 6 x 85 mm</b>		
pH-Fix 0–14 PT	0 · 1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11 · 12 · 13 · 14	921 11
pH-Fix 3.6–6.1 PT <b>CE</b> <sup>1)2)</sup>	3.6 · 4.1 · 4.4 · 4.7 · 5.0 · 5.3 · 5.6 · 6.1	921 31
pH-Fix 4.5–10.0 PT	4.5 · 5.0 · 5.5 · 6.0 · 6.5 · 7.0 · 7.5 · 8.0 · 8.5 · 9.0 · 9.5 · 10.0	921 21

**CE**: CE-marked according to <sup>1)</sup> the IvD-directive 98/79/EG <sup>2)</sup> the directive for medical products 93/42/EWG

## PEHANON® – pH measurement in colored samples

PEHANON® is a special pH-test strip that unifies the pH-indicator and the reference colors on one strip and has the following **advantages**:

Any sample color has the same effect on both the reference colors and the reactive pad. This ensures unadulterated readings in colored solutions. The user can be sure to get **accurate pH-values**.

An invisible hydrophobic barrier just above the top color field prevents capillary action of the test solution. The handle will remain dry and clean whatever the sample is. Therefore the use of the strip is **very safe**.

pH-values can be determined without a separate color chart. Workers and machinists can use single strips instead of complete packs with color chart which makes PEHANON® highly **economic**.



Test	Gradation	Presentation	REF
PEHANON® 1-12	1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11 · 12	Box of 200 strips 11 x 100 mm	<b>904 01</b>
PEHANON® 0-1.8	0 · 0.3 · 0.6 · 0.8 · 1.0 · 1.2 · 1.5 · 1.8	Box of 200 strips 11 x 100 mm	<b>904 11</b>
PEHANON® 1.0-2.8	1.0 · 1.3 · 1.6 · 1.8 · 2.0 · 2.2 · 2.5 · 2.8	Box of 200 strips 11 x 100 mm	<b>904 12</b>
PEHANON® 1.8-3.8	1.8 · 2.1 · 2.4 · 2.7 · 3.0 · 3.2 · 3.5 · 3.8	Box of 200 strips 11 x 100 mm	<b>904 13</b>
PEHANON® 2.8-4.6	2.8 · 3.1 · 3.4 · 3.6 · 3.8 · 4.0 · 4.3 · 4.6	Box of 200 strips 11 x 100 mm	<b>904 14</b>
PEHANON® 3.8-5.5	3.8 · 4.0 · 4.2 · 4.4 · 4.6 · 4.9 · 5.2 · 5.5	Box of 200 strips 11 x 100 mm	<b>904 15</b>
PEHANON® 4.0-9.0	4.0 · 4.5 · 5.0 · 5.5 · 6.0 · 6.5 · 7.0 · 7.5 · 8.0 · 8.5 · 9.0	Box of 200 strips 11 x 100 mm	<b>904 24</b>
PEHANON® 5.2-6.8	5.2 · 5.5 · 5.7 · 5.9 · 6.1 · 6.3 · 6.5 · 6.8	Box of 200 strips 11 x 100 mm	<b>904 16</b>
PEHANON® 6.0-8.1	6.0 · 6.3 · 6.6 · 6.9 · 7.2 · 7.5 · 7.8 · 8.1	Box of 200 strips 11 x 100 mm	<b>904 17</b>
PEHANON® 7.2-8.8	7.2 · 7.4 · 7.6 · 7.8 · 8.0 · 8.2 · 8.5 · 8.8	Box of 200 strips 11 x 100 mm	<b>904 19</b>
PEHANON® 8.0-9.7	8.0 · 8.2 · 8.4 · 8.6 · 8.8 · 9.1 · 9.4 · 9.7	Box of 200 strips 11 x 100 mm	<b>904 20</b>
PEHANON® 9.5-12.0	9.5 · 10.0 · 10.5 · 11.0 · 11.5 · 12.0	Box of 200 strips 11 x 100 mm	<b>904 21</b>
PEHANON® 10.5-13.0	10.5 · 11.0 · 11.5 · 12.0 · 12.5 · 13.0	Box of 200 strips 11 x 100 mm	<b>904 22</b>
PEHANON® 12.0-14.0	12.0 · 12.5 · 13.0 · 13.5 · 14.0	Box of 200 strips 11 x 100 mm	<b>904 23</b>

## pH indicator papers – standard for many applications

pH indicator papers have been on the market for decades and are the standard for many applications. For each pH-value these papers show a single color which can be matched with the color scale at intervals of 0.2 –1 pH.

The characteristic features of pH indicator papers are:

pH indicators are supplied in plastic reels that ensure long term stability and protection against many external influences. The indicator paper will **always** be **ready-to-use** when needed.

pH indicators are manufactured from high quality filter papers from MACHEREY-NAGEL. Combined with our ISO 9001 quality control scheme this ensures optimal quality. The user will always get **reliable readings**.

The colors of the color scales are specially mixed to perfectly match the reaction color of the indicator papers. This makes the read-off of results **easy and accurate**.



Test	Gradation	Presentation	REF
Universal indicator paper 1–11	1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11	reel of 5 m x 7 mm	902 01
Universal indicator paper 1–11	1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11	booklet of 100 strips 10 x 70 mm	902 03
Universal indicator paper 1–14	1 · 2 · 3 · 5 · 6 · 7 · 8 · 9 · 10 · 12 · 14	reel of 5 m x 7 mm	902 04
Special indicator paper 0.5–5.5	0.5 · 1.0 · 1.5 · 2.0 · 2.5 · 3.0 · 3.5 · 4.0 · 4.5 · 5.0 · 5.5	reel of 5 m x 7 mm	902 05
Special indicator paper 3.8–5.8	<3.8 · 3.8 · 4.1 · 4.3 · 4.5 · 4.7 · 4.9 · 5.2 · 5.5 · 5.8 · >5.8	reel of 5 m x 7 mm	902 06
Special indicator paper 4.0–7.0	4.0 · 4.3 · 4.6 · 4.9 · 5.2 · 5.5 · 5.8 · 6.1 · 6.4 · 6.7 · 7.0	reel of 5 m x 7 mm	902 07
Special indicator paper 5.4–7.0	<5.4 · 5.4 · 5.7 · 6.0 · 6.2 · 6.4 · 6.7 · 7.0 · >7.0	reel of 5 m x 7 mm	902 08
Special indicator paper 5.5–9.0	5.5 · 6.0 · 6.5 · 7.0 · 7.5 · 8.0 · 8.5 · 9.0	reel of 5 m x 7 mm	902 09
Special indicator paper 6.4–8.0	<6.4 · 6.4 · 6.6 · 6.8 · 7.0 · 7.2 · 7.4 · 7.6 · 7.8 · 8.0 · >8.0	reel of 5 m x 7 mm	902 10
Special indicator paper 7.2–9.7	<7.2 · 7.2 · 7.5 · 7.8 · 8.1 · 8.4 · 8.7 · 9.0 · 9.3 · 9.7 · >9.7	reel of 5 m x 7 mm	902 11
Special indicator paper 8.0–10.0	8.0 · 8.2 · 8.4 · 8.7 · 9.0 · 9.2 · 9.6 · 10.0	reel of 5 m x 7 mm	902 12
Special indicator paper 9.0–13.0	9.0 · 9.5 · 10.0 · 10.5 · 11.0 · 11.5 · 12.0 · 12.5 · 13.0	reel of 5 m x 7 mm	902 13
Special indicator paper 12.0–14.0	12.0 · 12.5 · 13.0 · 13.5 · 14.0	reel of 5 m x 7 mm	902 14

## Duotest – double zone pH-papers

These indicator papers show two different colors for each pH-value at intervals of 0.3–1 pH-unit. This allows more accurate reading and good estimation of intermediate values.



Test	Gradation	Presentation	REF
Duotest 1–12	1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11 · 12	reel of 5 m x 10 mm	903 01
Duotest 1.0–4.3	1.0 · 1.3 · 1.6 · 1.9 · 2.2 · 2.5 · 2.8 · 3.1 · 3.4 · 3.7 · 4.0 · 4.3	reel of 5 m x 10 mm	903 02
Duotest 3.5–6.8	3.5 · 3.8 · 4.1 · 4.4 · 4.7 · 5.0 · 5.3 · 5.6 · 5.9 · 6.2 · 6.5 · 6.8	reel of 5 m x 10 mm	903 03
Duotest 5.0–8.0	5.0 · 5.3 · 5.6 · 5.9 · 6.2 · 6.5 · 6.8 · 7.1 · 7.4 · 7.7 · 8.0	reel of 5 m x 10 mm	903 04
Duotest 7.0–10.0	7.0 · 7.3 · 7.6 · 7.9 · 8.2 · 8.5 · 8.8 · 9.1 · 9.4 · 9.7 · 10.0	reel of 5 m x 10 mm	903 05
Duotest 9.5–14.0	9.5 · 10.0 · 10.5 · 11.0 · 11.5 · 12.0 · 12.5 · 13.0 · 13.5 · 14.0	reel of 5 m x 10 mm	903 06

## Tritest – triple zone pH-papers

For most precise reading these papers show three different colors for each full pH unit. Tritest L is specially equipped with a hydrophobic barrier between the different indicators. As the different colors will not mix this ensures optimal usability.



Test	Gradation	Presentation	REF
Tritest 1–11	1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11	reel of 5 m x 10 mm	905 01
Tritest L 1–11	1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11	reel of 6 m x 14 mm	905 10

## UNISOL – liquid indicators

UNISOL are indicator solutions, that are directly applied to the sample. The resulting color of the sample is compared to a color chart that is included in the kit.

UNISOL indicator solutions are specially **suitable for** pH measurement in pure water, surface water or other **none buffered solutions**. In these samples other indicator papers find their limit of applicability.



Type	Range	Gradation	Presentation	REF
<b>UNISOL indicator solution</b>				
UNISOL 410*	pH 4.0–10.0	0.5	100 mL in drop bottle, color scale, 1 plastic cuvette MN 13/72	<b>910 02</b>
UNISOL 113*	pH 1.0–13.0	1.0	100 mL in drop bottle, color scale, 1 plastic cuvette MN 13/72	<b>910 31</b>
<b>UNISOL accessories</b>				
Plastic cuvettes MN 13/72			pack of 5	<b>910 39</b>

\* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.

## Indicator papers without color scale – easy acid/base distinction

These products are simple, completely impregnated indicator papers. They indicate, if the pH of solution is above or below the point of color change. They are useful to distinguish between acids and bases.

Test	Range	Color change	Presentation	REF
Brilliant yellow paper	6.7–7.9	yellow → red	box of 200 strips 20 x 70 mm	<b>907 01</b>
Congo paper MN 816 N*	5.0–3.0	red → blue	reel of 5 m x 7 mm	<b>907 02</b>
Congo paper MN 616 T*	5.0–3.0	red → blue	box of 200 strips 20 x 70 mm	<b>907 04</b>
Congo paper MN 260 HE*	5.0–3.0	red → blue	box of 200 strips 20 x 70 mm	<b>907 05</b>
Litmus paper blue	8.0–5.0	blue → red	reel of 5 m x 7 mm	<b>911 06</b>
Litmus paper blue	8.0–5.0	blue → red	booklet of 100 strips 10 x 70 mm	<b>911 26</b>
Litmus paper neutral	5.0–8.0	red ← violet → blue	reel of 5 m x 7 mm	<b>911 07</b>
Litmus paper neutral	5.0–8.0	red ← violet → blue	booklet of 100 strips 10 x 70 mm	<b>911 27</b>
Litmus paper red	5.0–8.0	red → blue	reel of 5 m x 7 mm	<b>911 08</b>
Litmus paper red	5.0–8.0	red → blue	booklet of 100 strips 10 x 70 mm	<b>911 28</b>
Nitrazine yellow paper	6.0–7.0	yellow → violet-blue	box of 200 strips 20 x 70 mm	<b>907 11</b>
Phenolphthalein paper	8.3–10.0	white → red	reel of 5 m x 7 mm	<b>907 12</b>

\* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.



### QUANTOFIX® semi-quantitative tests strips

QUANTOFIX® test strips are semi-quantitative in nature. They meet all requirements for a modern rapid test.

Benefits:

#### Rapid

Most of the QUANTOFIX® test strips can be carried out in 10-120 seconds. That makes the application very **quick** for the end user.

#### Convenient

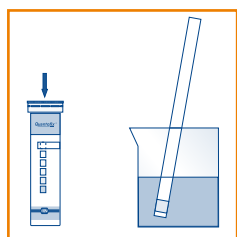
All QUANTOFIX® tests are ready to use kits. They are precalibrated and contain all necessary equipment and reagents. As “labs in a pocket” they are very **handy** for the end user.

#### Precise

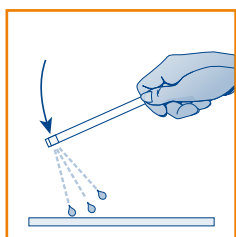
The color charts are adjusted and checked using certified standard solutions that are directly traceable to primary NIST standards. The user can be sure to receive **accurate** readings whenever he tests.



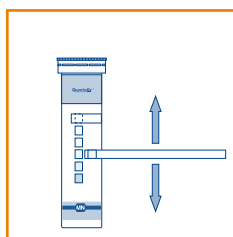
### How to use QUANTOFIX® test strips



Immerse all test fields completely.



Shake off excess liquid.



Compare the test field with the color scale.

Make sure to store the packs in a dry, cool place at 4–30 °C. Some tests are separately marked to require cool storage at 4–8 °C. To ensure the longevity of the test strips, please close the tube immediately after removing a strip. The desiccant in the stopper effectively protects the strips against moisture.

The strips can safely be used up to the date printed on the pack. The initial shelf life of the QUANTOFIX® products is 2.5 years after production.





Test	Gradation	REF
QUANTOFIX® Aluminum* 1)	0 · 5 · 20 · 50 · 200 · 500 mg/L Al <sup>3+</sup>	913 07
QUANTOFIX® Ammonium* 1)	0 · 10 · 25 · 50 · 100 · 200 · 400 mg/L NH <sub>4</sub> <sup>+</sup>	913 15
QUANTOFIX® Arsenic Sensitive* 1)	0 · 0.005 · 0.01 · 0.025 · 0.05 · 0.1 · 0.25 · 0.5	913 45
QUANTOFIX® Arsenic* 10 1)	0 · 0.01 · 0.025 · 0.05 · 0.1 · 0.5 mg/L As <sup>3+/5+</sup>	913 34
QUANTOFIX® Arsenic 50 1)	0 · 0.05 · 0.1 · 0.5 · 1.0 · 1.7 · 3.0 mg/L As <sup>3+/5+</sup>	913 32
QUANTOFIX® Ascorbic acid	0 · 50 · 100 · 200 · 300 · 500 · 1000 · 2000 mg/L vitamin C	913 14
QUANTOFIX® Calcium* 1)	0 · 10 · 25 · 50 · 100 mg/L Ca <sup>2+</sup>	913 24 2)
QUANTOFIX® Carbonate hardness	0 · 3 · 6 · 10 · 15 · 20 °d	913 23
QUANTOFIX® Chloride	0 · 500 · 1000 · 1500 · 2000 · ≥ 3000 mg/L Cl <sup>-</sup>	913 21
QUANTOFIX® Chlorine Sensitive <b>CE</b>	0 · 0.1 · 0.5 · 1 · 3 · 10 mg/L Cl <sub>2</sub>	913 39
QUANTOFIX® Chlorine* 1)	0 · 1 · 3 · 10 · 30 · 100 mg/L Cl <sub>2</sub>	913 17
QUANTOFIX® Chromate* 1)	0 · 3 · 10 · 30 · 100 mg/L CrO <sub>4</sub> <sup>2-</sup>	913 01
QUANTOFIX® Cobalt	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L Co <sup>2+</sup>	913 03
QUANTOFIX® Copper	0 · 10 · 30 · 100 · 300 mg/L Cu <sup>+2+</sup>	913 04
QUANTOFIX® Cyanide* 1)	0 · 1 · 3 · 10 · 30 mg/L CN <sup>-</sup>	913 18
QUANTOFIX® EDTA	0 · 100 · 200 · 300 · 400 mg/L EDTA	913 35
QUANTOFIX® Formaldehyde* 1)	0 · 10 · 20 · 40 · 60 · 100 · 200 mg/L HCHO	913 28
QUANTOFIX® Glutaraldehyde <b>CE</b>	0 · 0.5 · 1 · 1.5 · 2 · 2.5 % glutaraldehyde	913 43
QUANTOFIX® LubriCheck	0 · 15 · 50 · 75 · 130 · 200 mmol/L KOH	913 36
QUANTOFIX® Molybdenum 1)	0 · 5 · 20 · 50 · 100 · 250 mg/L Mo <sup>6+</sup>	913 25
QUANTOFIX® Nickel	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L Ni <sup>2+</sup>	913 05
QUANTOFIX® Nitrate/Nitrite	0 · 10 · 25 · 50 · 100 · 250 · 500 mg/L NO <sub>3</sub> <sup>-</sup> 0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO <sub>2</sub> <sup>-</sup>	913 13
QUANTOFIX® Nitrite	0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO <sub>2</sub> <sup>-</sup>	913 11
QUANTOFIX® Nitrite 3000	0 · 0.1 · 0.3 · 0.6 · 1 · 2 · 3 g/L NO <sub>2</sub> <sup>-</sup>	913 22
QUANTOFIX® Nitrite/pH	0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO <sub>2</sub> <sup>-</sup> pH 6.0 · 6.4 · 6.7 · 7.0 · 7.3 · 7.6 · 7.9 · 8.2 · 8.4 · 8.6 · 8.8 · 9.0 · 9.3 · 9.6	913 38
QUANTOFIX® Peracetic acid 50 <b>CE</b>	0 · 5 · 10 · 20 · 30 · 50 mg/L peracetic acid	913 40
QUANTOFIX® Peracetic acid 500 <b>CE</b>	0 · 50 · 100 · 200 · 300 · 400 · 500 mg/L peracetic acid	913 41
QUANTOFIX® Peracetic acid 2000 <b>CE</b>	0 · 500 · 1000 · 1500 · 2000 mg/L peracetic acid	913 42
QUANTOFIX® Peroxide 25	0 · 0.5 · 2 · 5 · 10 · 25 mg/L H <sub>2</sub> O <sub>2</sub>	913 19
QUANTOFIX® Peroxide 100 <b>CE</b>	0 · 1 · 3 · 10 · 30 · 100 mg/L H <sub>2</sub> O <sub>2</sub>	913 12
QUANTOFIX® Peroxide 1000	0 · 50 · 150 · 300 · 500 · 800 · 1000 mg/L H <sub>2</sub> O <sub>2</sub>	913 33
QUANTOFIX® Phosphate* 1)	0 · 3 · 10 · 25 · 50 · 100 mg/L PO <sub>4</sub> <sup>3-</sup>	913 20
QUANTOFIX® Potassium 1)	0 · 200 · 400 · 700 · 1000 · 1500 mg/L K <sup>+</sup>	913 16
QUANTOFIX® QUAT	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L benzalkonium-chloride	913 37
QUANTOFIX® Sulfate	< 200 · > 400 · > 800 · > 1200 · > 1600 mg/L SO <sub>4</sub> <sup>2-</sup>	913 29
QUANTOFIX® Sulfite	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L SO <sub>3</sub> <sup>2-</sup>	913 06
QUANTOFIX® Tin	0 · 10 · 25 · 50 · 100 · 250 · 500 mg/L Sn <sup>2+</sup>	913 09
QUANTOFIX® Total iron 100	0 · 2 · 5 · 10 · 25 · 50 · 100 mg/L Fe <sup>2+/3+</sup>	913 44
QUANTOFIX® Total iron 1000	0 · 5 · 20 · 50 · 100 · 250 · 500 · 1000 mg/L Fe <sup>2+/3+</sup>	913 30
QUANTOFIX® Zinc* 1)	0 · 2 · 5 · 10 · 25 · 50 · 100 mg/L Zn <sup>2+</sup>	913 10
QUANTOFIX® Multistick for aquarium owners	0 · 5 · 10 · 15 · 20 · 25 °d total hardness 0 · 3 · 6 · 10 · 15 · 20 °d carbonate hardness pH 6.4 · 6.8 · 7.2 · 7.6 · 8.0 · 8.4	913 26 913 27 3)

Presentation: Container with 100 test strips 6 x 95 mm

1) The tests are supplied complete with all reagents required for the determination

2) Presentation: Container with 60 test strips 3) Presentation: Container with 25 test strips

**CE**: CE-marked according to the directive for medical products 93/42/EWG

\* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.

## AQUADUR®

AQUADUR® are test strips for the determination of water hardness. Clear color changes from green to red ensure an accurate readout. Individually sealed AQUADUR® test strips can perfectly be combined with promotion activities to inform customers about the necessity of water softeners. Instructions for use are printed on the seal. Due to the clear design with green/red indication, a color chart is not necessary.

The hardness of water depends on its content of calcium and magnesium salts. The total sum of these salts determines the hardness of water. In the USA, it is expressed in terms of ppm (mg/L) CaCO<sub>3</sub>.

Water is often simply classified as „soft water“, or „hard water“ etc. The following values generally apply to these terms:

below 50 ppm CaCO<sub>3</sub> – very soft water

50–120 ppm CaCO<sub>3</sub> – soft water

120–240 ppm CaCO<sub>3</sub> – medium hard water

240–360 ppm CaCO<sub>3</sub> – hard water

above 360 ppm CaCO<sub>3</sub> – very hard water

Conversion factor: 1 °d = 17.8 ppm CaCO<sub>3</sub>



Gradation	Color change	Presentation	REF
< 3 · > 5 · > 10 · > 15 · > 20 · > 25 °d	green → red	Box of 100 test strips 6 x 95 mm	<b>912 01</b>
< 3 · > 4 · > 7 · > 14 · > 21 °d	green → red	Box of 100 test strips 6 x 95 mm	<b>912 20</b>
< 3 · > 4 · > 8.4 · > 14 °d	green → red	Box of 100 test strips 6 x 95 mm	<b>912 39</b>
< 3 · > 5 · > 10 · > 15 · > 20 · > 25 °d	green → red	1000 individually sealed test strips	<b>912 23</b>
< 3 · > 4 · > 7 · > 14 · > 21 °d	green → red	1000 individually sealed test strips	<b>912 24</b>
< 3 · > 4 · > 8.4 · > 14 · > 21 °d	green → red	1000 individually sealed test strips	<b>912 40</b>
< 3 · > 5 · > 10 · > 15 · > 20 · > 25 °d	green → red	5000 test strips, without scale	<b>912 21</b>
< 3 · > 4 · > 7 · > 14 · > 21 °d	green → red	5000 test strips, without scale	<b>912 22</b>
< 3 · > 5 · > 10 · > 15 · > 20 · > 25 °d	green → red	Set of 3 individually sealed test strips, pack of 50 sets	<b>912 902</b>
<b>AQUADUR® Sensitive</b>			
0 · 0.3 · 0.6 · 1.1 °d	☒	light beige → blue	Box of 100 test strips 6 x 95 mm
☒: CE-marked according to the directive for medical products 93/42/EWG			

## Swimming pool tests

Test	Gradation	Presentation	REF
Cyanuric acid test	0 · 50 · 100 · 150 · 300 mg/L cyanuric acid	Box of 25 test strips	<b>907 10</b>
Swimming Pool Test 3 in 1	Free chlorine: 0 · 0.5 · 1 · 3 · 5 · 10 mg/L Cl <sub>2</sub> Alkalinity: 0 · 80 · 120 · 180 · 240 mg/L CaCO <sub>3</sub> pH: 6.4 · 6.6 · 7.2 · 7.6 · 8.4	Box of 50 test strips	<b>907 52</b>
Swimming Pool Test 5 in 1	Total chlorine: 0 · 1 · 3 · 5 · 10 mg/L Cl <sub>2</sub> Total hardness: 0 · 100 · 250 · 500 · 1000 mg/L CaCO <sub>3</sub> Cl <sub>2</sub> , CaCO <sub>3</sub> , pH like REF 907 52	Box of 50 test strips	<b>907 59</b>

## Special test papers

Most of our special test papers are semi-quantitative and have a high quality color chart for easy and reliable read-off.

Determination of	Test paper / test strips	Gradation	REF
Ammonium / Ammonia	Ammonia Test	0 · 0,5 · 1 · 3 · 6 mg/L NH <sub>4</sub> <sup>+</sup>	907 14
Chlorine	Chlorine test	10 · 50 · 100 · 200 mg/L Cl <sub>2</sub>	907 09
Fluoride ions	Fluoride test	0 · 2 · 5 · 10 · 20 · 50 · 100 mg/L F <sup>-</sup>	907 34
Halide ions	Saltesmo	0 · 0.25 · 0.5 · 1 · 2 · 3 · 4 · 5 g/L NaCl	906 08
Humidity in air (relative)	Moisture indicator	20 · 30 · 40 · 50 · 60 · 70 · 80 %	908 01
	Moisture indicator	8 %	908 901
	Moisture indicator without cobalt chloride	8 %	908 903
Ozone content in air	Ozone test strips	< 90 · 90 – 150 · 150 – 210 · > 210 µg/m <sup>3</sup> O <sub>3</sub>	907 36
QUATS	INDIQUAT	on request	90900-2
Silver	Ag-Fix (test paper)	0 · 1 · 2 · 3 · 5 · 7 · 10 g/L Ag <sup>+</sup>	907 40
	Ag-Fix (test strips)	0 · 0.5 · 1 · 2 · 3 · 5 · 7 · 10 g/L Ag <sup>+</sup> pH 4 · 5 · 6 · 7 · 8	907 41



## Test papers for qualitative determinations

These test papers allow the qualitative determination of ions and chemical compounds. They are used to detect, if compounds tested for are present above a specific detection limit. Some of the papers have specific applications:

### Test papers for criminal investigations

**Peroxtesmo KM** detects blood traces. It is sensitive for peroxidase. A wet sample is soaked in water for about 1 minute and then placed on the test paper. A coloration of the test paper clearly indicates the presence of blood.

**Phosphatesmo KM** is used to detect sperm spots. It is specific for acid phosphatase. The test gives a clear early indication whether suspicious samples contain sperm or not. However, the reaction is not a suitable substitute for microscopic determination of live spermatozoa.

These test papers can easily be used on the crime scene. They can provide very early indications and supply the investigators with useful, preliminary information. This accelerates investigations in their critical beginning.



### Test papers for milk analysis

**Peroxtesmo MI** detects lactoperoxidase in milk. It is an accepted indicator to distinguish between raw milk and high heated milk. In contrast to liquid indicators based on guaiacol, Peroxtesmo MI does not smell and comes without hazardous reagents which is convenient and safe for the user.

**Phosphatesmo MI** is used to detect alkaline phosphatase in milk. The test is suitable as a rapid test for successful pasteurization of milk.



### Water test papers

**WATESMO** is for the detection of water in the liquid as well as the vapor phase. On contact with water the test paper changes color from light blue to dark blue.

**WATOR** is a special presentation of WATESMO for the dairy industry. The shelf life of butter is closely connected to the size of the containing water and buttermilk droplets. Manufacturers use WATOR to check the water distribution in butter prior to storing large quantities. On contact with water the light blue paper develops dark blue spots. Size and number of these spots are correlated to the distribution of water.



### Test papers for oil and oil-tanks

**Oil test paper** is recommended for the rapid determination of oil contaminations in water and soil. On contact with oil the paper turns dark blue.

**AQUATEC** allows the easy and reliable detection of water at the bottom of petrol and fuel oil tanks. It is also suitable to measure the thickness of oil layers in oil separators.



For a comprehensive overview on the applications of the different test papers, test strips and pH-papers please see the application guide on page 3.

Determination of	Test paper / Test strips	Presentation	REF
Alkaline phosphatase in milk	Phosphatesmo MI	box of 50 test strips 10 x 95 mm	906 12
Aluminum ions (Al <sup>3+</sup> )	Aluminum test paper	box of 100 strips 20 x 70 mm	907 21
Ammonia, ammonium ions (NH <sub>3</sub> , NH <sub>4</sub> <sup>+</sup> )	Ammonium test paper	box of 200 strips 20 x 70 mm	907 22
Antimony ions (Sb <sup>3+</sup> )	Antimony test paper	box of 200 strips 20 x 70 mm	907 23
Arsenic, arsine (As, AsH <sub>3</sub> )	Arsenic test paper = mercury bromide paper	box of 200 strips 20 x 70 mm	907 62
Bismuth ions (Bi <sup>3+</sup> )	Bismuth test paper	box of 200 strips 20 x 70 mm	907 33
Blood traces (Peroxidase)	Peroxtesmo KM	box of 25 sheets 15 x 30 mm	906 05
Boric acid, borates (H <sub>3</sub> BO <sub>3</sub> , BO <sub>3</sub> <sup>3-</sup> )	Tumeric paper	box of 200 strips 20 x 70 mm	907 47
Chlorine, free halogens	Chlortesmo Potassium iodide starch paper (see below)	box of 200 strips 20 x 70 mm	906 03
Chromium, chromate (Cr(VI), CrO <sub>4</sub> <sup>2-</sup> )	Chromium test paper	box of 200 strips 20 x 70 mm	907 24
Cobalt ions (Co <sup>2+</sup> )	Cobalt test paper	box of 100 strips 20 x 70 mm	907 28
Copper, copper ions (Cu, Cu <sup>+</sup> , Cu <sup>2+</sup> )	Cuprotesmo	box of 40 sheets 40 x 25 mm	906 01
Copper(II) ions (Cu <sup>2+</sup> )	Copper test paper	box of 200 strips 20 x 70 mm	907 29
Cyanide, hydrocyanic acid (CN <sup>-</sup> , HCN)	Cyantesmo*	reel of 5 m length	906 04
Fluorides, hydrogen fluorides (F <sup>-</sup> , H <sub>2</sub> F <sub>2</sub> )	Fluoride test paper	box of 200 strips 20 x 70 mm	907 50
Halogens, especially free chlorine	Chlortesmo	box of 200 strips 20 x 70 mm	906 03
Hydrogen Sulfide (H <sub>2</sub> S), Sulfide ions (S <sup>2-</sup> )	Lead acetate paper	roll of 5 m length	907 44
		refill pack of 3 rolls	907 45
		booklet with 100 strips 10 x 75 mm	907 46
	Sulfide test paper	roll of 5 m length	907 61
Iron(II) ions (Fe <sup>2+</sup> )	Dipyridyl paper	box of 200 strips 20 x 70 mm	907 25
Iron ions (Fe <sup>2+</sup> , Fe <sup>3+</sup> )	Iron test paper	box of 100 strips 20 x 70 mm	907 26
Lactoperoxidase in milk	Peroxtesmo MI	box of 100 strips 15 x 15 mm	906 27
Lead, lead ions (Pb, Pb <sup>2+</sup> )	Plumbtesmo	box of 40 sheets 40 x 25 mm	906 02
Mastitis	Udder test paper	PE bag with 20 sheets	907 48
Nickel(II) ions (Ni <sup>2+</sup> )	Nickel test paper	box of 200 strips 20 x 70 mm	907 30
Nitrate and nitrite (NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> )	Nitratesmo	reel of 5 m length	906 11
Nitrite ions (NO <sub>2</sub> <sup>-</sup> ), nitrous acid (HNO <sub>2</sub> ), ozone (O <sub>3</sub> )	Potassium iodide starch paper MN 816 N (normal sensitivity)	reel of 5 m length	907 54
		refill pack of 3 rolls	907 55
		booklet of 100 strips 10 x 75 mm	907 56
	Potassium iodide starch pa- per MN 616 T (for spot tests)	box of 200 strips 20 x 70 mm	907 58
Oil in water and soil	Oil test paper	box of 100 strips 20 x 70 mm	907 60
Peroxidase in foodstuffs	Peroxtesmo KO	box of 100 sheets 15 x 15 mm	906 06
Peroxidase in milk	Peroxtesmo MI	box of 100 sheets 15 x 15 mm	906 27
Potassium ions (K <sup>+</sup> )	Potassium test paper	box of 200 sheets 20 x 70 mm	907 27
Protein residues	INDIPRO	box of 60 test sticks 10 x 95 mm and reagents	907 65
Reducing agents, SO <sub>2</sub> , sulfite ions	Potassium iodate starch paper	reel of 5 m length	907 53
Silver ions (Ag <sup>+</sup> )	Silver test paper	box of 200 strips 20 x 70 mm	907 32
Sulphur dioxide (SO <sub>2</sub> ), sulfite ions	Sulfite test paper	box of 100 strips 20 x 70 mm	907 63
Sperm, acid phosphatase	Phosphatesmo KM	box of 25 sheets 15 x 30 mm	906 07
Vat dyes, end-point of conversion	Indanthrene yellow paper	box of 200 strips 20 x 70 mm	907 51
Water on the bottom of fuel tanks	AQUATEC test sticks	box of 100 strips 10 x 200 mm	907 42
Water in org. solutions	Watesmo	reel of 5 m length	906 09
Water distribution in butter	Wator	box of 50 sheets 78 x 40 mm	906 10
Zirconium ions (Zr <sup>4+</sup> )	Zirconium test paper	box of 100 strips 20 x 70 mm	907 21

\* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.

# List of applications

For detection of	Detection limit [mg/L]	Product name	Page
Acidic phosphatase	traces	Phosphatesmo KM	13
Alkalinity (CaCO <sub>3</sub> ) in swimming pool water	80	Swimming Pool Test 3 in 1 and 5 in 1	10
Aluminum (Al <sup>3+</sup> )	10	Aluminum test paper	13
Aluminum (Al <sup>3+</sup> )	5	QUANTOFIX® Aluminum	9
Ammonium (NH <sub>4</sub> <sup>+</sup> )	0.5	Ammonia Test	11
Ammonium (NH <sub>4</sub> <sup>+</sup> )	10	Ammonium test paper	13
Ammonium (NH <sub>4</sub> <sup>+</sup> )	10	QUANTOFIX® Ammonium	9
Antimon (Sb <sup>3+</sup> )	5	Antimony test paper	13
Aquariumwater parameters	5 °d (Total hardness) 3 °d (Carbonate hardness) 6.4 (pH)	QUANTOFIX® Multistick for aquarium owners	9
Arsenic (As <sup>3+/5+</sup> )	0.005	QUANTOFIX® Arsenic Sensitive	9
Arsenic (As <sup>3+/5+</sup> )	0.01	QUANTOFIX® Arsenic 10	9
Arsenic (As <sup>3+/5+</sup> )	0.05	QUANTOFIX® Arsenic 50	9
Arsenic (As <sup>3+/5+</sup> ), Arsenic trihydride (AsH <sub>3</sub> )	0.5 µg	Arsenic test paper (Mercury bromide paper)	13
Ascorbic acid (Vitamine C)	50	QUANTOFIX® Ascorbic acid	9
Bismuth (Bi <sup>3+</sup> )	60	Bismuth test paper	13
Blood traces	traces	Peroxtesmo KM	13
Borate, Boric acid (B)	20	Turmeric test paper	13
Bromine, free	1	Chlortesmo	13
Calcium (Ca <sup>2+</sup> )	10	QUANTOFIX® Calcium	9
Carbonate hardness	3 °d	QUANTOFIX® Carbonate hardness	9
Carbonate hardness in aquarium water	3 °d	QUANTOFIX® Multistick for aquarium owners	9
Chloride (Cl <sup>-</sup> )	150	Saltesmo	11
Chloride (Cl <sup>-</sup> )	500	QUANTOFIX® Chloride	9
Chlorine (Cl <sub>2</sub> )	1	Chlortesmo	13
Chlorine (Cl <sub>2</sub> )	0.1	QUANTOFIX® Chlorine Sensitive	9
Chlorine (Cl <sub>2</sub> )	1	QUANTOFIX® Chlorine	9
Chlorine (Cl <sub>2</sub> )	10	Chlorine Test	11
Chlorine (Cl <sub>2</sub> ), free, in swimming pool water	0.5	Swimming Pool Test 3 in 1 and 5 in 1	10
Chlorine (Cl <sub>2</sub> ), total, in swimming pool water	1	Swimming Pool Test 5 in 1	10
Chromate (CrO <sub>4</sub> <sup>2-</sup> )	5	Chromium test paper	13
Chromate (CrO <sub>4</sub> <sup>2-</sup> )	3	QUANTOFIX® Chromate	9
Chromium in matter	0.1 %	Chromium test paper (chromate detection)	13
Cobalt (Co <sup>2+</sup> )	25	Cobalt test paper	13
Cobalt (Co <sup>2+</sup> )	10	QUANTOFIX® Cobalt	9
Cobalt in matter	0.5 %	Cobalt test paper	13
Complexing agents (EDTA)	100	QUANTOFIX® EDTA	9
Copper (Cu <sup>+</sup> , Cu <sup>2+</sup> )	10	QUANTOFIX® Copper	9
Copper (Cu <sup>+</sup> , Cu <sup>2+</sup> ) in solutions	3	Cuprotesmo	13
Copper (Cu <sup>+</sup> , Cu <sup>2+</sup> ) on surfaces	0.05 µg	Cuprotesmo	13
Copper (Cu <sup>2+</sup> )	20	Copper test paper	13
Cyanide (CN <sup>-</sup> )	0.2	Cyantesmo	13
Cyanide (CN <sup>-</sup> )	1	QUANTOFIX® Cyanide	9
Cyanuric acid	50	Cyanuric acid Test	10
Diazotizations	end point	Potassim iodide starch paper	13
Disinfectants, QUAT-based	customer specified	INDIQUAT	13
EDTA	100	QUANTOFIX® EDTA	9
Formaldehyde (HCHO)	10	QUANTOFIX® Formaldehyde	9
Fluorides (F <sup>-</sup> )	20	Fluoride test paper	13
Fluorides (F <sup>-</sup> )	2	Fluoride Test	11
Free bromine	1	Chlortesmo	13
Free chlorine	1	Chlortesmo, Potassium iodide starch paper	13
Free iodine	1	Chlortesmo	13
Glutaraldehyde	0.5 %	QUANTOFIX® Glutaraldehyde	9
Humidity, relative	20 % or 8 %	Humidity indicator	11
Hydrocyanic acid (HCN)	0.2	Cyantesmo	13
Hydrogen fluoride (HF)	20	Fluoride test paper	13
Hydrogen peroxide	0.5 / 1 / 50	QUANTOFIX® Peroxide 25 / 100 / 1000	9
Hydrogen sulfide (H <sub>2</sub> S)	5 (S <sup>2-</sup> )	Lead acetate paper	13
Hydroxyperoxide		see peroxide	9
Iodine, free	1	Chlortesmo	13
Iron(II), specific for Fe <sup>2+</sup>	2	Dipyridyl paper	13
Iron(II+III)	10	Iron test paper	13
Iron(II+III)	2 / 5	QUANTOFIX® total Iron 100 / 1000	9
Lead (Pb <sup>2+</sup> ) in solutions	5	PLUMBTESMO®	13
Lead in exhaust gases	traces	PLUMBTESMO®	13
Lead on surfaces	0.05 µg	PLUMBTESMO®	13

For detection of	Detection limit [mg/L]	Product name	Page
Mastitis		Udder test paper	13
Molybdenum (Mo <sup>6+</sup> )	5	QUANTOFIX <sup>®</sup> Molybdenum	9
Nickel(II) (Ni <sup>2+</sup> )	10	Nickel test paper	13
Nickel(II) (Ni <sup>2+</sup> )	10	QUANTOFIX <sup>®</sup> Nickel	9
Nickel in matter	0.5 %	Nickel test paper	13
Nitrate (NO <sub>3</sub> <sup>-</sup> )	10	Nitratesmo	13
Nitrate (NO <sub>3</sub> <sup>-</sup> )	10	QUANTOFIX <sup>®</sup> Nitrate/Nitrite	9
Nitrate (NO <sub>3</sub> <sup>-</sup> ) in vegetables	10	QUANTOFIX <sup>®</sup> Nitrate/Nitrite	9
Nitrite (NO <sub>2</sub> <sup>-</sup> )	1	Nitratesmo, Potassium iodate starch paper	13
Nitrite (NO <sub>2</sub> <sup>-</sup> )	1	QUANTOFIX <sup>®</sup> Nitrite	9
Nitrite (NO <sub>2</sub> <sup>-</sup> )	0.1 g/L	QUANTOFIX <sup>®</sup> Nitrite 3000	9
Nitrite (NO <sub>2</sub> <sup>-</sup> ) in cooling lubricants	1	QUANTOFIX <sup>®</sup> Nitrite	9
Nitrous acid (HNO <sub>2</sub> )	1 (NO <sub>2</sub> <sup>-</sup> )	Potassium iodate starch paper	13
Oil in soil	specific	Oil test paper	13
Oil in water	1	Oil test paper	13
Ozone (O <sub>3</sub> )		Potassium iodate starch paper	13
Ozone concentration in air	90 µg/m <sup>3</sup>	Ozone test strip	11
Peracetic acid	5	QUANTOFIX <sup>®</sup> Peracetic acid 50	9
Peracetic acid	50	QUANTOFIX <sup>®</sup> Peracetic acid 500	9
Peracetic acid	500	QUANTOFIX <sup>®</sup> Peracetic acid 2000	9
Peroxidase in blood	specific	Peroxtesmo KM	13
Peroxidase in food	specific	Peroxtesmo KO	13
Peroxidase in milk	specific	Peroxtesmo MI	13
Peroxide (H <sub>2</sub> O <sub>2</sub> )	0.5	QUANTOFIX <sup>®</sup> Peroxide 25	9
Peroxide (H <sub>2</sub> O <sub>2</sub> )	1	QUANTOFIX <sup>®</sup> Peroxide 100	9
Peroxide (H <sub>2</sub> O <sub>2</sub> )	50	QUANTOFIX <sup>®</sup> Peroxide 1000	9
pH value		Test papers and test strips, liquid indicator	4-7
pH value in colored solvents		PEHANON <sup>®</sup>	4-7
Phosphatase, acidic	traces	Phosphatesmo KM	13
Phosphatase, alkaline	traces	Phosphatesmo MI	13
Phosphate (PO <sub>4</sub> <sup>3-</sup> )	3	QUANTOFIX <sup>®</sup> Phosphate	9
Potassium (K <sup>+</sup> )	250	Potassium test paper	13
Potassium (K <sup>+</sup> )	200	QUANTOFIX <sup>®</sup> Potassium	9
Proteins, residues	50 µg BSA	INDIPRO	13
Quaternary ammonium compounds	customer specified	INDIQUAT	11
Quaternary ammonium compounds	10	QUANTOFIX <sup>®</sup> QUAT	9
Reducing agents	specific	Potassium iodate starch paper	13
Relative humidity	20 %	Humidity indicator	11
Secretion, impaired, in cows		Udder test paper	13
Silver (Ag <sup>+</sup> )	20	Silver test paper	13
Silver (Ag <sup>+</sup> ) in fixing baths	0.5 g/L / 1 g/L	Ag-Fix test paper and test strips	11
Sodium chloride in food	0.25 g/L	SALTESMO	11
Sperm	traces	Phospahtesmo KM	13
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	< 200	QUANTOFIX <sup>®</sup> Sulfate	9
Sulfides (S <sup>2-</sup> )	5	Lead acetate paper	13
Sulfides (S <sup>2-</sup> )	5	Sulfide test paper	13
Sulfite (SO <sub>3</sub> <sup>2-</sup> )	5 (SO <sub>2</sub> ) 10 (Na <sub>2</sub> SO <sub>3</sub> )	Potassium iodate starch paper, Sulfite test paper	13
Sulfite (SO <sub>3</sub> <sup>2-</sup> )	10	QUANTOFIX <sup>®</sup> Sulfite	9
Sulfite oxidase deficiency	traces	Sulfite test paper	13
Sulphur dioxide (SO <sub>2</sub> )	5	Potassium iodate starch paper, Sulfite test paper	13
Sulphurous acid (H <sub>2</sub> SO <sub>2</sub> )	5 (SO <sub>2</sub> )	Potassium iodate starch paper	13
Swimming pool parameters	0.5 (Cl <sub>2</sub> ) 80 (CaCO <sub>3</sub> ) 6.4 (pH)	Swimming Pool Test	10
Tin (Sn <sup>2+</sup> )	10	QUANTOFIX <sup>®</sup> Tin	9
Total hardness in aquarium water	5 °d	QUANTOFIX <sup>®</sup> Multistick for aquarium owners	9
Vat-dye test	end point	Indanthrene yellow paper	13
Vitamine C	50	QUANTOFIX <sup>®</sup> Ascorbic acid	9
Water hardness	3 °d	AQUADUR <sup>®</sup>	10
Water in butter	according to DIN 10311	WATOR	13
Water in organic solvents	traces	WATESMO	13
Water in petrol tanks	bottom	AQUATEC test strips	13
Water in vapour phase		WATESMO	13
Zinc (Zn <sup>2+</sup> )	2	QUANTOFIX <sup>®</sup> Zinc	9
Zirconium (Zr <sup>4+</sup> )	20	Zirconium test paper	13

# Dip & Read Tests

## MACHEREY-NAGEL

Your competent partner in analytical chemistry

### Tradition and modernity – 100 years experience

- Worldwide operating German company (founded 1911)
- Subsidiaries in France, Switzerland and USA
- Distributors in over 150 countries
- Longtime tradition in filter papers
- Development, production and sales of special products for water, environmental and food analysis, for the biotechnology, chemical and pharmaceutical industry and medical diagnostics



### Quality and diversity – 5 product ranges with over 25 000 products „Made in Germany“

#### Filtration

- Filter papers
- Filter membranes
- Extraction thimbles

#### Rapid Tests

- Test papers and test strips
- Urine test strips

#### Water Analysis

- Colorimetric and titrimetric
- Photometric water analysis
- Microbiology

#### Chromatography

- High performance liquid chromatography (HPLC)
- Gas chromatography (GC)
- Sample preparation (SPE)
- Thin layer chromatography (TLC)

#### Bioanalysis

- Kits for purification of nucleic acids
- Kits for purification of proteins
- Transfer membranes



### Service

- Technical support by our Customer Service Center
- Product-specific quality certificates and Material Safety Data Sheets
- Customised special products
- Easy ordering and short delivery times
- Large number of catalogues, flyer and product information – of course free of charge

### Contact

Technical support and Customer Service Center for Water Analysis, Filtration, Rapid Tests, Medi-Test:

+49 2421 / 969 138  
+49 2421 / 969 161  
+49 2421 / 969 174  
+49 2421 / 969 187  
csc@mn-net.com

Product management Water Analysis:

+49 2421 / 969 168

Product management Filtration and Rapid Tests:

+49 2421 / 969 166

Please visit our website:

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

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

Your local distributor

## MACHEREY-NAGEL



MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6–8 · 52355 Düren · Germany

Germany

and international:

Tel.: +49 24 21 969-0

Fax: +49 24 21 969-199

E-mail: [info@mn-net.com](mailto:info@mn-net.com)

Switzerland:

MACHEREY-NAGEL AG

Tel.: +41 62 388 55 00

Fax: +41 62 388 55 05

E-mail: [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)

France:

MACHEREY-NAGEL EURL

Tel.: +33 388 68 22 68

Fax: +33 388 51 76 88

E-mail: [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)

USA:

MACHEREY-NAGEL Inc.

Tel.: +1 484 821 0984

Fax: +1 484 821 1272

E-mail: [sales-us@mn-net.com](mailto:sales-us@mn-net.com)



Since 1911