

# AIM FOR BRILLIANCE

IS YOUR WATER  
OF THE HIGHEST  
QUALITY?

## Detect very low concentrations of impurities in water

### The application

- Drinking water, groundwater, freshwater, mineral water and process water should be regularly tested for a variety of parameters.
- Analysis often requires high measurement sensitivities down to the ppb range.

### Our solution: MColortest™ with color-card comparator

The MColortest™ system is designed for highly sensitive, fast analysis of any water sample. It includes a color-card comparator, which allows you to compare the reaction color of the sample with a high-quality color scale for accurate evaluation.

### Benefits

- Unique brilliance and fine color graduation for precise analysis
- Easy-to-use visual tests with fast results
- Very low (ppb range) to medium concentrations can be tested
- Excellent measurement sensitivity

For more details, please visit: [www.merckmillipore.com/aaf](http://www.merckmillipore.com/aaf)





### Colorimetric and titrimetric test kits MColortest™

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Cooling & boiler water workflow  
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Drinking water workflow  
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Bottled water workflow  
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# MColortest™

Aim for brilliance with color cards

## Colorimetric and titrimetric test kits

**MColortest™** test kits give you exceptional results with brilliant color cards for easy, precise comparison. No special training is required – simply follow our illustrated instructions. Despite their simplicity, they offer unparalleled reliability. All test kits are thoroughly checked using certified standard solutions, which can be traced directly to primary reference materials from NIST and PTB. Thanks to their excellent stability, the kits can be stored for up to three years at 15-25°C.



*The MColortest™ system includes colorimetric and titrimetric tests (evaluation using color cards or test vessels, respectively). For more information, please see page 126.*

Economical  
refill packs

Easy, fast,  
direct read-out of color cards

Maximum  
reliability  
with numerous parameters

# Is the water's ammonium level safe for aquatic life?

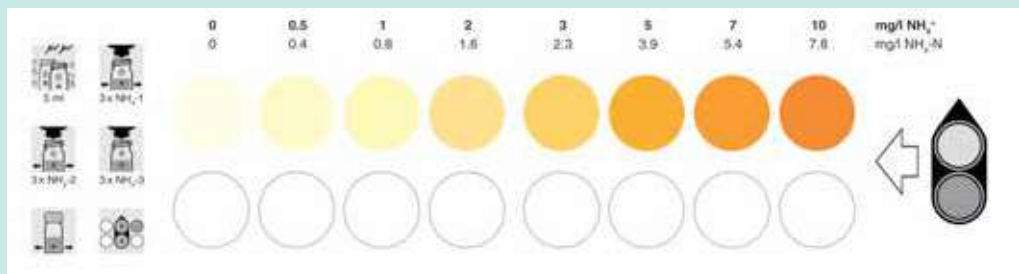
## Sensitive measurement of ammonium in fresh- and seawater

### The application

- Ammonium is a common water pollutant and can be toxic to aquatic life.
- Measuring the ammonium concentration of water is required by many international authorities, and maximum limits may not be exceeded.

### Our solution: MColortest™ Ammonium Test

We offer special test kits for fast, reliable measurement of ammonium ions and unionized ammonium in fresh- or seawater. The kits are designed for use with the MColortest™ system, offering sensitive measurements in the range of 0.5 to 10 mg/L  $\text{NH}_4$ .



### Benefits

- Easy to use with illustrated instructions
- Color card included in test kit for precise comparison
- Fast reaction times with results in 10 minutes
- Waste disposal advice available

For more applications, please visit: [www.merckmillipore.com/aaf](http://www.merckmillipore.com/aaf)

### High to medium concentrations, especially for turbid solutions MColortest™ with color-disk comparator

These tests evaluate the color reaction based on the transmitted light method. So even turbid and lightly colored water samples can be analyzed without further preparation.

Ten-stage color disk is made of very durable, lightfast plastic, thus suitable for industrial areas and wet environments. Almost all test vessels are break-proof for safer handling.

#### Application areas:

- Wastewater
- Industrial water
- Groundwater
- Bottled water
- Boiler water
- Swimming pool water
- Industrial applications

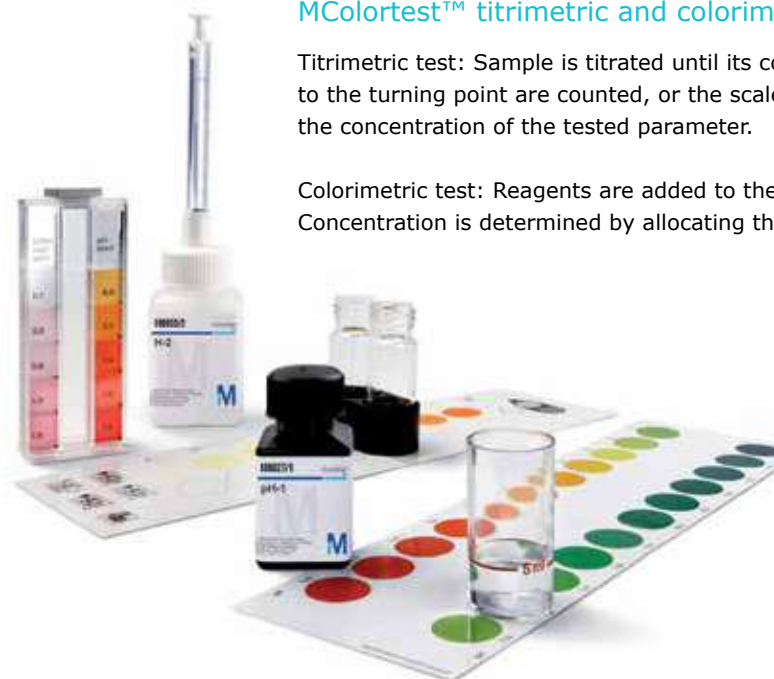
*The MColortest™ system:  
All reagents and the  
color-disk comparator are  
contained in the kit.*



### Medium concentrations MColortest™ titrimetric and colorimetric methods

Titrimetric test: Sample is titrated until its color changes. Number of drops consumed to the turning point are counted, or the scale value is read from a pipette to determine the concentration of the tested parameter.

Colorimetric test: Reagents are added to the sample, resulting in a color reaction. Concentration is determined by allocating the color to a value on a reference scale.



#### Application areas:

- Aquaculture for freshwater and seawater
- Surface water
- Swimming pool water
- School lessons

## Very low to medium concentrations MColortest™ with color-card comparator

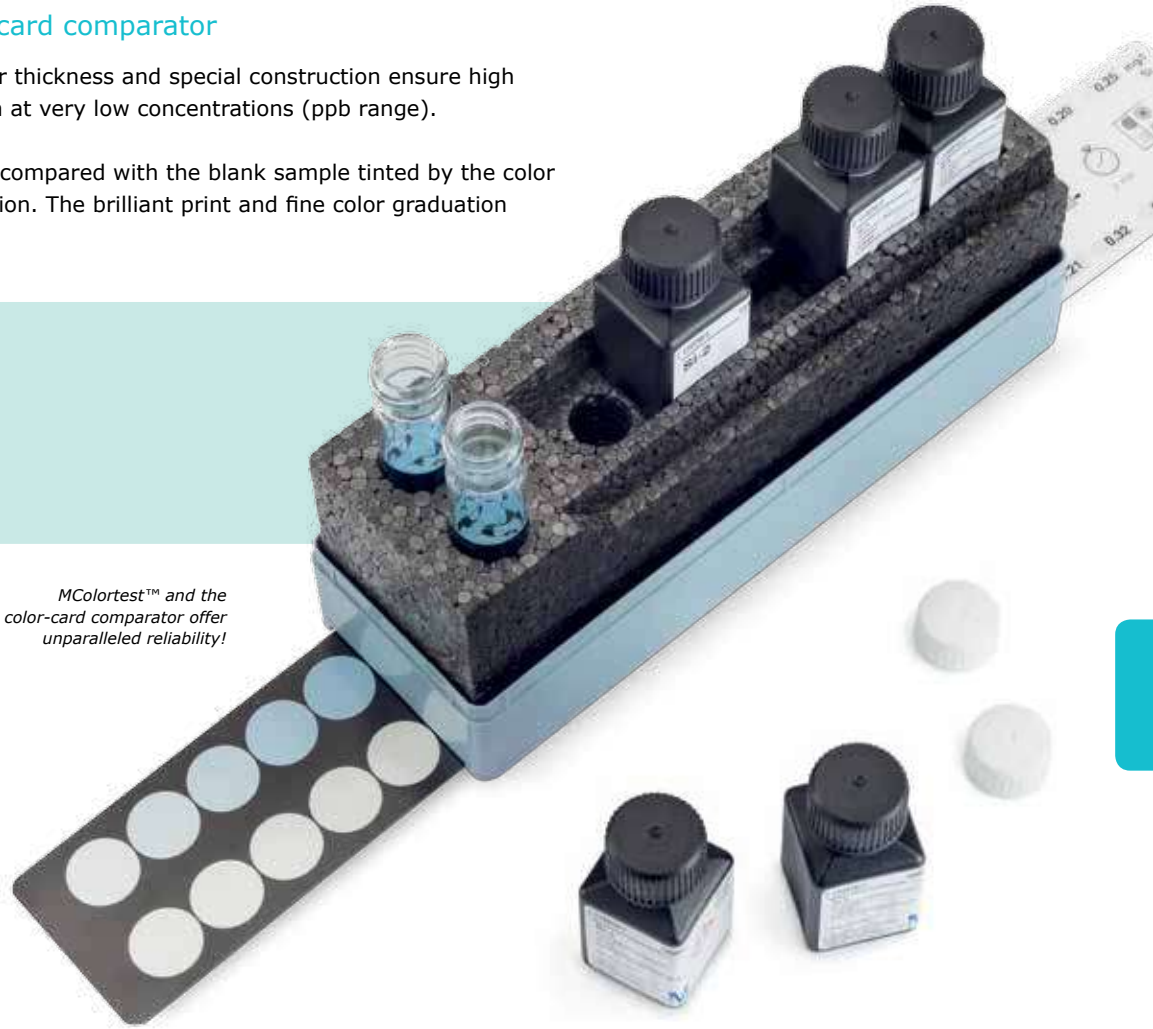
The comparator's greater layer thickness and special construction ensure high measurement sensitivity, even at very low concentrations (ppb range).

The sample's reaction color is compared with the blank sample tinted by the color cards to determine concentration. The brilliant print and fine color graduation enable precise analyses.

### Application areas:

- Drinking water
- Bottled water
- Boiler water
- Cooling water
- Industrial applications

*MColortest™ and the  
color-card comparator offer  
unparalleled reliability!*



## ! practical refill packs

You can effectively reduce your costs per analysis by using the economical refill packs we offer for many of our test kits.

## ! waste disposal advice

Get detailed information about disposal of MColortest™ kits on:  
[www.disposal-test-kits.com](http://www.disposal-test-kits.com)

Parameter	Graduation	No. of tests	Ord. No.	Ord. No. Refill pack	Method	Type
<b>A</b> Alkalinity Test	0.1 mmol/L	200 at 8.5 mmol/L	1.11109.0001		Acidimetric	Titration with pipette
Aluminium Test	0.07–0.12–0.20–0.35–0.50–0.65–0.80 mg/L Al	185	1.14413.0001	1.18452.0002	Chromazurol S	Color-card comparator
Aluminium Test	0.10–0.20–0.35–0.50–0.75–1–2–3–6 mg/L Al	150	1.18386.0001	1.18452.0002	Chromazurol S	Disk comparator
Ammonium Test	0.025–0.050–0.075–0.10–0.15–0.20–0.25–0.30–0.40 mg/L NH <sub>4</sub>	70	1.14428.0002		Indophenol blue	Color-card comparator
Ammonium Test	0.05–0.10–0.15–0.2–0.3–0.4–0.5–0.6–0.8 mg/L NH <sub>4</sub>	100	1.14400.0001		Neßler	Color-card comparator
Ammonium Test	0.2–0.4–0.6–1–2–3–5 mg/L NH <sub>4</sub>	50	1.08024.0001		Indophenol blue	Sliding comparator
Ammonium Test	0.2–0.5–0.8–1.2–1.6–2–3–5–8 mg/L NH <sub>4</sub>	200	1.14423.0002	1.18455.0002	Indophenol blue	Color-card comparator
Ammonium Test	0.2–0.5–0.8–1.3–2.0–3.0–4.5–6.0–8.0 mg/L NH <sub>4</sub>	200	1.14750.0002	1.18455.0002	Indophenol blue	Disk comparator
Ammonium Test	0.5–1–3–5–10 mg/L NH <sub>4</sub>	150	1.11117.0001		Neßler	Color-card comparator
Ammonium Test in freshwater and seawater	0.5–1–3–5–10 mg/L NH <sub>4</sub>	50	1.14657.0001		Indophenol blue	Color card
<b>C</b> Calcium Test	2 mg/L Ca	200 at 170 mg/L Ca	1.11110.0001		Titriplex® III	Titration with pipette
Carbon Dioxide Test	1.25 mg/L CO <sub>2</sub> 2.5 mg/L CO <sub>2</sub> 5 mg/L CO <sub>2</sub>	100 at 30 mg/L 100 at 60 mg/L 100 at 120 mg/L	1.17179.0001		Phenolphthalein	Titration with dropping bottle
Carbonate Hardness Test/ Acid cap. to pH 4.3 (ANC)	0.25 °e and 0.1 mmol/L	300 at 12.5 °e	1.08048.0001		Acidimetric	Titration with pipette
Carbonate Hardness Test/ Acid cap. to pH 4.3 (ANC)	1.25 °e	100 at 12.5 °e	1.11103.0001		Acidimetric	Titration with dropping bottle
Carbonate Hardness Test in freshwater and seawater	1.25 °e	50 at 1.25 °e	1.14653.0001		Acidimetric	Titration with dropping bottle
Chloride Test	2 mg/L Cl	200 at 170 mg/L Cl	1.11106.0001		Mercury(II)-nitrate	Titration with pipette
Chloride Test	3–6–10–18–30–60–100–180–300 mg/L Cl	200	1.14753.0001	1.18322.0002	Mercury(II)-thiocyanate	Disk comparator
Chloride Test	5–10–20–40–75–150–300 mg/L Cl	400	1.14401.0001	1.18322.0002	Mercury(II)-thiocyanate	Color-card comparator
Chloride Test	25 mg/L Cl	100 at 150 mg/L Cl	1.11132.0001		Mercury(II)-nitrate	Titration with dropping bottle
Chlorine Test (free chlorine)	0.01–0.025–0.045–0.06–0.08–0.1–0.15–0.2–0.3 mg/L Cl <sub>2</sub>	400 free chlorine	1.14434.0001	1.14977.0002	DPD	Color-card comparator
Chlorine Test (free chlorine) in freshwater and seawater	0.10–0.25–0.5–1.0–2.0 mg/L Cl <sub>2</sub>	100 free chlorine	1.14670.0001		TMB	Color card
Chlorine Test (free chlorine)	0.1–0.2–0.3–0.4–0.6–0.8–1.0–1.5–2.0 mg/L Cl <sub>2</sub>	600 free chlorine	1.14978.0001	1.14979.0002	DPD Liquid	Disk comparator
Chlorine Test (free and total chlorine)	0.1–0.2–0.3–0.4–0.6–0.8–1.0–1.5–2.0 mg/L Cl <sub>2</sub>	400 free chlorine + 400 total chlorine	1.14801.0001	1.14803.0002	DPD Liquid	Disk comparator
Chlorine Test (free chlorine)	0.25–0.50–0.75–1–2–4–8–10–15 mg/L Cl <sub>2</sub>	1,000 free chlorine	1.14976.0001	1.14977.0002	DPD	Disk comparator

														Parameter				
Food and beverages					Water (Analytics)									Others				
Beer processing	Food testing	Juices	Milk products	Mineral water	Soft drinks	Aquaculture	Boiler water, cooling water	Drinking water	Groundwater, surface water	Industrial water	Process water	Seawater	Swimming pools	Wastewater	Agriculture	Disinfection control	Electroplating	
				■		■	■	■	■	■	■	■	■	■				Alkalinity Test
■				■		■	■	■	■	■	■	■	■	■			■	Aluminium Test
■				■		■	■	■	■	■	■	■	■	■			■	Aluminium Test
	■			■		■	■	■	■				■	■	■			Ammonium Test
						■	■	■	■				■	■	■			Ammonium Test
	■			■		■	■	■	■	■			■	■	■			Ammonium Test
	■			■		■	■	■	■	■			■	■	■		■	Ammonium Test
						■	■	■	■	■			■	■	■		■	Ammonium Test
						■		■	■			■	■			■		Ammonium Test in freshwater and seawater
				■		■	■	■	■				■					Calcium Test
						■	■	■	■	■		■	■					Carbon Dioxide Test
				■		■	■	■	■	■	■	■						Carbonate Hardness Test / Acid cap. to pH 4.3 (ANC)
				■		■	■	■	■	■	■	■						Carbonate Hardness Test / Acid cap. to pH 4.3 (ANC)
				■		■	■	■	■	■	■	■						Carbonate Hardness Test in freshwater and seawater
	■			■		■	■	■	■	■	■	■	■	■	■			Chloride Test
	■			■		■	■	■	■	■	■	■	■	■	■			Chloride Test
	■			■		■	■	■	■	■	■	■	■	■	■			Chloride Test
	■			■		■	■	■	■	■	■	■	■	■	■			Chloride Test
				■		■		■					■			■	■	Chlorine Test (free chlorine)
				■		■	■	■			■		■					Chlorine Test (free chlorine) in freshwater and seawater
				■		■		■	■				■			■	■	Chlorine Test (free chlorine)
				■		■		■	■				■	■		■	■	Chlorine Test (free and total chlorine)
				■		■		■	■				■			■	■	Chlorine Test (free chlorine)



Parameter	Graduation	No. of tests	Ord. No.	Ord. No. Refill pack	Method	Type
<b>C</b> Chlorine Test (free and total chlorine)	0.25-0.50-0.75-1-2-4-7-10-15 mg/L Cl <sub>2</sub>	400 free chlorine + 400 total chlorine	1.14826.0001	1.18326.0002	DPD	Disk comparator
Chlorine- and pH Test (free chlorine)	0.10-0.20-0.30-0.60-1.0-1.5 mg/L Cl <sub>2</sub> / pH 6.5-6.8-7.0-7.2-7.4-7.6-7.9	150 (chlorine) 150 (pH)	1.11160.0001		DPD Phenol red	Sliding comparator
Chlorine- and pH Test (free and total chlorine)	0.1-0.3-0.6-1.0-1.5 mg/L Cl <sub>2</sub> pH 6.8-7.1-7.4-7.6-7.8	200 (chlorine) 200 (pH)	1.11174.0001	1.11157.0001 1.11143.0001	DPD Phenol red	Color-matching vessel
Chlorine Dioxide Test	0.020-0.050-0.075-0.10-0.15-0.20-0.30-0.40-0.55 mg/L ClO <sub>2</sub>	300	1.18754.0001	1.18757.0002	DPD	Color-card comparator
Chlorine Dioxide Test	0.5-0.9-1.4-1.9-3.8-7.5-13-19-28 mg/L ClO <sub>2</sub>	300	1.18756.0001	1.18757.0002	DPD	Disk comparator
Chromate Test	0.011-0.022-0.045-0.07-0.09-0.11-0.13-0.18-0.22 mg/L CrO <sub>4</sub>	150	1.14402.0001	1.18456.0002	Diphenyl-carbazide	Color-card comparator
Chromate Test	0.22-0.45-0.67-1.0-1.3-1.8-2.2-2.9-3.6 mg/L CrO <sub>4</sub>	300	1.14441.0001	1.18456.0002	Diphenyl-carbazide	Color-card comparator
Chromate Test	0.22-0.45-0.8-1.3-2.2-4.0-6.7-13-22 mg/L CrO <sub>4</sub>	300	1.14756.0001	1.18456.0002	Diphenyl-carbazide	Disk comparator
Color Test	5-10-20-30-40-50-70-100-150 CU (Hazen)	no limit	1.14421.0001		Hazen	Color-card comparator
Copper Test	0.05-0.08-0.12-0.16-0.2-0.25-0.3-0.4-0.5 mg/L Cu	125	1.14414.0001	1.18459.0002	Cuprizone	Color-card comparator
Copper Test in freshwater and seawater	0.15-0.3-0.45-0.6-0.8-1.2-1.6 mg/L Cu	50	1.14651.0001		Cuprizone	Color card
Copper Test	0.3-0.6-1.0-1.5-2.0-2.5-3-5 mg/L Cu	125	1.14418.0001	1.18459.0002	Cuprizone	Color-card comparator
Copper Test	0.3-0.6-1.0-1.5-2-3-5-7-10 mg/L Cu	125	1.14765.0001	1.18459.0002	Cuprizone	Disk comparator
Cyanide Test	0.002-0.004-0.007-0.010-0.013-0.016-0.020-0.025-0.030 mg/L CN	65	1.14417.0001	1.18457.0002	König reaction	Color-card comparator
Cyanide Test	0.03-0.06-0.10-0.15-0.2-0.3-0.4-0.5-0.7 mg/L CN	200	1.14429.0001	1.18457.0002	König reaction	Color-card comparator
Cyanide Test	0.03-0.07-0.13-0.2-0.3-0.5-1-2-5 mg/L CN	200	1.14798.0001	1.18457.0002	König reaction	Disk comparator
<b>F</b> Fluoride Test	0.15-0.3-0.5-0.8 mg/L F	100	1.18771.0001		Alizarin complexone	Color card
Formaldehyde Test	0.10-0.25-0.4-0.6-0.8-1.0-1.5 mg/L HCHO	100	1.08028.0001		Triazole derivative	Sliding comparator
<b>H</b> Hydrazine Test	0.10-0.25-0.5-1.0 mg/L N <sub>2</sub> H <sub>2</sub>	100	1.08017.0001	necessary 1.08018.0001	Dimethylamino-benzaldehyde	Color-matching vessel
<b>I</b> Iron Test	0.01-0.02-0.03-0.04-0.06-0.08-0.10-0.15-0.20 mg/L Fe	300	1.14403.0001	1.18458.0002	Triazine	Color-card comparator
Iron Test in freshwater and seawater	0.05-0.1-0.2-0.4-0.6-0.8-1.0 mg/L Fe	50	1.14660.0001		Triazine	Color card
Iron Test	0.1-0.2-0.5-0.8-1.2-2-3-5 mg/L Fe	500	1.14759.0001	1.18458.0002	Triazine	Disk comparator
Iron Test	0.1-0.3-0.5-1.0-2.5-5.0-7.5-12.5-25-50 mg/L Fe	200	1.11136.0001	1.08023.0001	2,2'-Bipyridine	Color-matching vessel
Iron Test	0.2-0.4-0.6-0.8-1.0-1.3-1.6-2.0-2.5 mg/L Fe	500	1.14438.0001	1.18458.0002	Triazine	Color-card comparator

														Parameter				
Food and beverages						Water (Analytics)						Others						
Beer processing	Food testing	Juices	Milk products	Mineral water	Soft drinks	Aquaculture	Boiler water, cooling water	Drinking water	Groundwater, surface water	Industrial water	Process water	Seawater	Swimming pools	Wastewater	Agriculture	Disinfection control	Electroplating	
							■						■	■				Chlorine Test (free and total chlorine)
													■					Chlorine- and pH Test (free chlorine)
													■					Chlorine- and pH Test (free and total chlorine)
							■	■								■		Chlorine Dioxide Test
							■	■		■				■		■		Chlorine Dioxide Test
								■	■	■		■		■			■	Chromate Test
								■	■	■		■		■			■	Chromate Test
								■	■	■		■		■			■	Chromate Test
	■		■					■	■		■			■			■	Color Test
	■	■	■		■		■	■	■			■	■	■			■	Copper Test
							■	■	■	■		■	■	■				Copper Test in freshwater and seawater
		■					■	■	■			■	■	■			■	Copper Test
		■					■	■	■			■	■	■			■	Copper Test
		■		■			■	■	■	■				■			■	Cyanide Test
				■			■	■	■	■				■			■	Cyanide Test
				■			■	■	■	■				■			■	Cyanide Test
				■				■	■									Fluoride Test
		■									■					■	■	Formaldehyde Test
							■											Hydrazine Test
		■		■			■	■	■	■		■		■				Iron Test
				■			■	■	■	■		■		■				Iron Test in freshwater and seawater
				■			■	■	■	■		■		■				Iron Test
		■		■			■	■	■	■				■				Iron Test
		■		■			■	■	■	■		■		■				Iron Test

Parameter	Graduation	No. of tests	Ord. No.	Ord. No. Refill pack	Method	Type
<b>I</b> Iron Test	0.25-0.5-1.0-2.0-3.0-5.0-7.5-10-15 mg/L Fe	300	1.14404.0001		1,10-phenanthroline	Color-card comparator
<b>M</b> Magnesium Test	100-200-300-500-1,000-1,500 mg/L Mg	50	1.11131.0001		Xylidyl blue	Color card
Manganese Test	0.03-0.06-0.10-0.15-0.20-0.25-0.3-0.4-0.5 mg/L Mn	120	1.14406.0001	1.18460.0002	Oxime	Color-card comparator
Manganese Test	0.3-0.7-1.3-2-3-4-5-7-10 mg/L Mn	120	1.14768.0001	1.18460.0002	Oxime	Disk comparator
<b>N</b> Nickel Test	0.02-0.04-0.07-0.10-0.15-0.2-0.3-0.4-0.5 mg/L Ni	125	1.14420.0001	1.18461.0002	Dimethyl-glyoxime	Color-card comparator
Nickel Test	0.5-1.0-1.5-2-3-4-6-8-10 mg/L Ni	500	1.14783.0001	1.18461.0002	Dimethyl-glyoxime	Disk comparator
Nitrate Test	5-10-20-30-40-50-60-70-90 mg/L NO <sub>3</sub>	90	1.18387.0001	1.18462.0002	Nitrospectral / sulfuric acid	Disk comparator
Nitrate Test	10-25-50-75-100-125-150 mg/L NO <sub>3</sub>	200	1.11170.0001		Sulfanilic acid	Sliding comparator
Nitrate Test in freshwater	10-25-50-75-100-125-150 mg/L NO <sub>3</sub>	100	1.11169.0001		Sulfanilic acid	Color card
Nitrite Test	0.005-0.012-0.02-0.03-0.04-0.05-0.06-0.08-0.10 mg/L NO <sub>2</sub>	110	1.14408.0001	1.18463.0002	Griess' reaction	Color-card comparator
Nitrite Test in freshwater and seawater	0.05-0.15-0.25-0.50-1.0 mg/L NO <sub>2</sub>	100	1.14658.0001		Griess' reaction	Color card
Nitrite Test	0.025-0.05-0.075-0.1-0.15-0.2-0.3-0.5 mg/L NO <sub>2</sub>	200	1.08025.0001		Griess' reaction	Sliding comparator
Nitrite Test	0.1-0.2-0.3-0.4-0.6-0.8-1.0-1.3-2.0 mg/L NO <sub>2</sub>	400	1.14424.0001	1.18463.0002	Griess' reaction	Color-card comparator
Nitrite Test	0.1-0.2-0.4-0.6-1.0-1.8-3.0-6.0-10 mg/L NO <sub>2</sub>	400	1.14774.0001	1.18463.0002	Griess' reaction	Disk comparator
<b>O</b> Oxygen Test	0.1 mg/L O <sub>2</sub>	100 at 8.5 mg/L O <sub>2</sub>	1.11107.0001	1.11152.0001 1.14663.0001	modified Winkler method	Titration with pipette
Oxygen Test in freshwater and seawater	1-3-5-7-9-12 mg/L O <sub>2</sub>	50	1.14662.0001	necessary: 1.14663.0001	modified Winkler method	Color card
Ozone Test	0.007-0.017-0.030-0.040-0.055-0.070-0.10-0.14-0.20 mg/L O <sub>3</sub>	300	1.18755.0001	1.18759.0002	DPD	Color-card comparator
Ozone Test	0.15-0.35-0.5-0.7-1.4-2.7-5.0-7.0-10 mg/L O <sub>3</sub>	300	1.18758.0001	1.18759.0002	DPD	Disk comparator
<b>P</b> pH Universal indicator, liquid	pH 4.0-4.5-5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0-9.5-10.0	100 mL	1.09175.0100		Mixed indicator	Color card
pH Universal indicator, liquid	pH 4.0-4.5-5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0-9.5-10.0	1 L	1.09175.1000		Mixed indicator	Color card
pH Indicator liquid	pH 9.0-10.0-11.0-12.0-13.0	100 mL	1.09176.0100		Mixed indicator	Color card
pH Test	pH 4.5-5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0	400	1.08027.0001		Mixed indicator	Sliding comparator
pH Test	pH 4.5-5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0	100	1.08038.0001	1.08043.0001	Mixed indicator	Color-matching vessel
pH Test in freshwater and seawater	pH 5.0-5.3-5.6-6.0-6.3-6.6-7.0-7.3-7.6-8.0-8.3-8.6-9.0	200	1.18773.0001		Mixed indicator (fresh-/seawater)	Color-card comparator

																	Parameter	
																	Parameter	
Food and beverages						Water (Analytics)								Others				
Beer processing	Food testing	Juices	Milk products	Mineral water	Soft drinks	Aquaculture	Boiler water, cooling water	Drinking water	Groundwater, surface water	Industrial water	Process water	Seawater	Swimming pools	Wastewater	Agriculture	Disinfection control	Electroplating	
																		Iron Test
																		Magnesium Test
																		Manganese Test
																		Manganese Test
																		Nickel Test
																		Nickel Test
																		Nitrate Test
																		Nitrate Test
																		Nitrate Test in freshwater
																		Nitrite Test
																		Nitrite Test in freshwater and seawater
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																		Oxygen Test
																		Oxygen Test in freshwater and seawater
																		Ozone Test
																		Ozone Test
																		pH Universal indicator, liquid
																		pH Universal indicator, liquid
																		pH Indicator liquid
																		pH Test
																		pH Test
																		pH Test in freshwater and seawater

Parameter	Graduation	No. of tests	Ord. No.	Ord. No. Refill pack	Method	Type
<b>P</b> pH Test in swimming pool	pH 6.5–6.8–7.1–7.4–7.6–7.8–8.2	200	1.14669.0001		Phenol red	Color card
Phosphate Test	0.046–0.092–0.14–0.18–0.25–0.34–0.43 mg/L PO <sub>4</sub>	200	1.18394.0001	1.18465.0002	Phosphomolybdenum blue	Color-card comparator
Phosphate Test in freshwater and seawater	0.25–0.50–0.75–1.0–1.5–2.0–3.0 mg/L PO <sub>4</sub>	100	1.14661.0001		Phosphomolybdenum blue	Color card
Phosphate Test	0.6–1.2–1.8–2.5–3.1–4.6–6.1–7.7–9.2 mg/L PO <sub>4</sub>	200	1.14846.0001	1.18465.0002	Phosphomolybdenum blue	Disk comparator
Phosphate Test	1.3–3.3–6.7–10–13 mg/L PO <sub>4</sub>	200	1.11138.0001	1.08046.0001	Phosphomolybdenum blue	Color-matching vessel
Phosphate Test	3.1–6.1–11–18–31–61–123 mg/L PO <sub>4</sub>	190	1.14449.0001	1.18466.0002	Vanadium molybdate	Color-card comparator
Phosphate Test	4.6–9.2–18–28–37–49–61–123–307 mg/L PO <sub>4</sub>	300	1.18388.0001	1.18466.0002	Vanadium molybdate	Disk comparator
<b>R</b> Residual Hardness Test	0.05–0.10–0.19 °e	400	1.11142.0001		Mixed indicator	Color card
<b>S</b> Silicate (Silicic Acid) Test	0.021–0.043–0.086–0.13–0.17–0.21–0.32–0.43–0.53 mg/L SiO <sub>2</sub>	150	1.14410.0001	1.18323.0002	Silico-molybdenum blue	Color-card comparator
Silicate (Silicic Acid) Test	0.64–1.3–2.1–3.2–4.3–6.4–11–15–21 mg/L SiO <sub>2</sub>	150	1.14792.0001	1.18323.0002	Silico-molybdenum blue	Disk comparator
Sulfate Test	25–50–75–100–130–160–190–240–300 mg/L SO <sub>4</sub>	75	1.18389.0001	1.18467.0002	Tannic acid	Disk comparator
Sulfate Test	25–50–80–110–140–200–300 mg/L SO <sub>4</sub>	90	1.14411.0001	1.18467.0002	Tannic acid	Color-card comparator
Sulfide Test	0.02–0.04–0.06–0.08–0.10–0.13–0.16–0.20–0.25 mg/L S	100	1.14416.0001	1.18468.0002	Dimethyl-p-phenyldiamine	Color-card comparator
Sulfide Test	0.1–0.3–0.5–0.7–1–2–3–4–5 mg/L S	200	1.14777.0001	1.18468.0002	Dimethyl-p-phenyldiamine	Disk comparator
Sulfite Test	0.5 mg/L Na <sub>2</sub> SO <sub>3</sub> (0.32 mg/L SO <sub>3</sub> )	200 at 40 mg/L Na <sub>2</sub> SO <sub>3</sub>	1.11148.0001		Iodate / Starch	Titration with pipette
<b>T</b> Total Hardness Test	0.13 °e and 1 mg/L CaCO <sub>3</sub>	300 at 3.8 °e	1.08047.0001	1.08040.0001	Titriplex® III	Titration with pipette
Total Hardness Test	0.25 °e and 10 mg/L CaCO <sub>3</sub>	300 at 12.5 °e	1.08039.0001	1.08033.0001 1.11122.0001 1.08203.0001	Titriplex® III	Titration with pipette
Total Hardness Test	1.25 °e	100 at 12.5 °e	1.11104.0001		Titriplex® III	Titration with dropping bottle
Total Hardness Test	20 mg/L CaCO <sub>3</sub>	200 at 200 mg/L	1.08312.0001		Titriplex® III	Titration with dropping bottle
Total Hardness Test in freshwater	1.25 °e	50 at 1.25 °e	1.14652.0001		Titriplex® III	Titration with dropping bottle
<b>U</b> Urea Test for swimming pools	0.3–0.6–1.0–1.5–2–3–4–5–8 mg/L (NH <sub>2</sub> ) <sub>2</sub> CO	100	1.14843.0001	1.14845.0002	Indophenol blue	Disk comparator
<b>Z</b> Zinc Test	0.1–0.2–0.3–0.4–0.5–0.7–1–2–5 mg/L Zn	120	1.14780.0001	1.14782.0002	Thiocyanate / Brilliant green	Disk comparator
Zinc Test	0.1–0.2–0.3–0.4–0.5–0.7–1–2–5 mg/L Zn	120	1.14412.0001	1.14782.0002	Thiocyanate / Brilliant green	Color-card comparator

														Parameter				
Food and beverages							Water (Analytics)							Others				
Beer processing	Food testing	Juices	Milk products	Mineral water	Soft drinks	Aquaculture	Boiler water, cooling water	Drinking water	Groundwater, surface water	Industrial water	Process water	Seawater	Swimming pools	Wastewater	Agriculture	Disinfection control	Electroplating	
													■					pH Test in swimming pool
	■							■	■			■		■	■		■	Phosphate Test
						■	■	■	■	■	■	■		■				Phosphate Test in freshwater and seawater
	■		■			■		■	■	■	■	■		■	■		■	Phosphate Test
	■		■			■	■	■	■	■	■	■		■	■		■	Phosphate Test
			■			■	■	■	■	■	■	■		■	■		■	Phosphate Test
			■			■	■	■	■	■	■	■		■	■		■	Phosphate Test
							■											Residual Hardness Test
			■			■	■	■	■	■	■	■		■				Silicate (Silicic Acid) Test
			■			■	■	■	■	■	■	■		■				Silicate (Silicic Acid)Test
			■				■	■						■				Sulfate Test
			■					■	■					■				Sulfate Test
			■			■		■	■					■	■			Sulfide Test
			■			■		■	■					■	■			Sulfide Test
■	■	■	■	■	■		■	■	■					■				Sulfite Test
			■			■	■	■	■			■	■					Total Hardness Test
			■			■	■	■	■			■	■					Total Hardness Test
			■			■	■	■	■			■	■					Total Hardness Test
			■			■	■	■	■	■				■				Total Hardness Test in freshwater
												■	■					Urea Test
■		■	■	■	■		■	■	■	■				■			■	Zinc Test
■		■	■	■	■		■	■	■	■				■			■	Zinc Test

### Is it time for an oil change?

We offer rapid colorimetric methods for determining the freshness of frying oils and fats. With our easy-to-use tests, you'll always know whether your oil is still good or if you need to replace it.



### Deep-frying fats tests

Parameter	Graduation	No. of test	Ord. No.	Ord. No. Refill pack	Method
Free fatty acids	0.5–1.0–2.0–3.0 mg/g KOH	100	1.17046.0001		pH indicator
Oxifrit-Test®	fresh – change advisable – gone off	60 (Refill pack 30)	1.10653.0001	1.10654.0001	Colorimetric, acc. to the principle of determination of oxidized fatty acids (OFAs)

### Accessories for MColortest™ and MQuant™

Product	Ord. No.
Flat-bottomed long tubes inclusive screw caps for MColortest™ with color-card comparator (1 pack = 12 pcs)	1.14901.0001
Flat-bottomed tubes inclusive screw caps for titrimetric and colorimetric MColortest™ (1 pack = 12 pcs)	1.14902.0001
Flat-bottomed tubes inclusive screw caps for MColortest™ with color-disk comparator (1 pack = 12 pcs)	1.17988.0001
Test vessels with 5 mL und 10 mL graduations, for MColortest™ and MQuant™ Tests (1 pack = 30 pcs)	1.17989.0001

**quality assurance**

We check and calibrate our tests using certified buffer solutions, which can be traced directly to primary reference materials from NIST and PTB.

### MColortest™ Compact Laboratory for Water Testing | Ord. No. 1.11151.0001

Determination of pH, ammonium, biological oxygen demand (BOD), carbonate hardness, total hardness, residual hardness, nitrate, nitrite, phosphate and oxygen.

This compact laboratory allows you to quickly measure all major parameters of standing or flowing surface water, and accurately assess the current water quality.

#### Scope of delivery

Parameter	Measuring range	No. of tests	Ord. No. Refill pack
MColortest™ Ammonium Test	0.2 – 5 mg/L NH <sub>4</sub>	50	1.08024.0001
MColortest™ Carbonate Hardness Test / Acid cap. to pH 4.3 (ANC)	0.25 – 25 °e ANC: 0.1 – 7.2 mmol/L	150 at 12.5 °e	1.08048.0001
MColortest™ Total Hardness Test	0.25 °e and 10 mg/L	150 at 12.5 °e	1.08039.0001
MColortest™ Nitrate Test	10 – 150 mg/L NO <sub>2</sub>	100	1.11170.0001
MColortest™ Nitrite Test	0.025 – 0.5 mg/L NO <sub>2</sub>	200	1.08025.0001
MColortest™ pH Test	pH 4.5 – 9	200	1.08027.0001
MColortest™ Phosphate Test in freshwater and seawater	0.25 – 3.0 mg/L PO <sub>4</sub>	100	1.14661.0001
MColortest™ Oxygen Test	0.1 mg/L O <sub>2</sub>	100 at 8.5 mg/L O <sub>2</sub>	1.11107.0001
Flat-bottomed tubes inclusive screw caps for MColortest™ Tests		3 pcs	
Thermometer			
Test vessels with 5 mL graduation		1 pc	

