

FOOD AND BEVERAGE

The products you need to accurately analyze chemical parameters in food and beverages

Food and beverage producers face increasing safety regulations, and are required to perform detailed analyses of raw materials, in-process controls, quality tests, and hygiene monitoring. As all of these analyses take time, our rapid and on-the-spot tests are designed to help you get your product to the market faster.

This brochure highlights products you need to accurately analyze important chemical parameters in food and beverages, such as the concentration of ascorbic acid, glucose and fructose, or microbiological contamination.



The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.





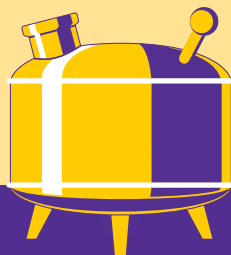
food & beverage workflow

Input



Raw material QC

Preparation



In-Process



Processing

Quality Control

Chromatography

- HPLC, GC, TLC
> Page 10
- Solvents



Spectrophotometry

- Spectroquant® Prove 600
> Page 4
- Spectroquant® test kits, e.g. calcium, nitrate, sulfite
> Page 6



Reference materials

- Certipur®
> Page 12



Microbial testing

- Dehydrated culture media
> Page 20

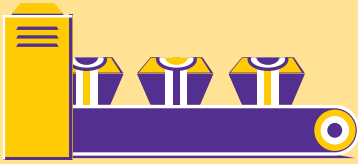


Ingredient and nutritional testing

- Kjeldahl, total dietary fiber
> Page 12
- Karl Fischer - reagents
> Page 13



Output



Filling



Product QC



In-Process Control

Semi-quantitative testing

- pH strips and paper
> [Page 18](#)
- MQuant™ test strips,
e.g. free fatty acids
> [Page 16](#)



Microbial testing

- Air sampler,
e.g. MAS-family
> [Page 20](#)



Quantitative testing

Test strips

- RQflex® 10
> [Page 14](#)
- Reflectoquant® test kits e.g. HMF,
glucose, sucrose, ascorbic acid
> [Page 15](#)
- Spectroquant® test kits,
e.g. iron, magnesium, sulfite
> [Page 6](#)



Reference materials

- Certipur®
> [Page 12](#)



SPECTROQUANT® PROVE INSTRUMENTS JUST PROVE IT

Test now and... see yourself

In combination with the Spectroquant® Test Kits you can leverage the full potential of this new instrument! With a small footprint, ergonomic design and robust material, it fits perfectly to your lab environment.



Safe & Convenient:

- Live ID provides the method and selects the right settings. Test-specific lot and expiry data are saved with each result.
- Direct insertion of round cell tests without opening any lids.

Robust & Easy-to-clean:

- Materials and design of Spectroquant® Prove are engineered to last and resistant to most chemicals used in labs.
- Removable cell holder allows easy cleaning.

SPECTROQUANT® PROVE SPECTROPHOTOMETERS

Three perfect models. Just choose.

100



300



600



Spectroquant® Prove 100 VWR Cat. No. EM1.73016.0001

For routine applications

Prove 100 is the best choice for those who primarily use our broad range of Spectroquant® test kits, or only perform Vis measurements. High quality and great value for money for your daily analyses.

Spectroquant® Prove 300 VWR Cat. No. EM1.73017.0001

For sensitive measurements

Thanks to its long-lasting xenon lamp, Prove 300 is ideal for more intensive use. What's more, it is capable of both UV and Vis measurements, so you have greater flexibility for more intricate analyses.

Spectroquant® Prove 600 VWR Cat. No. EM1.73018.0001

For complex analyses

Designed for high-end UV/Vis optics, and cells of up to 100 mm, Prove 600 packs great power into a compact size. Excellent resolution and sensitivity for use with test kits, complex kinetics or spectral measurements.

Specifications		Prove		
		100	300	600
Measuring Technology	Spectrophotometer with reference beam technology	■	■	■
Wavelength Range	Vis (320 – 1,100 nm)	■	■	■
	UV (190 – 320 nm)		■	■
Lamp Type	Tungsten halogen lamp	■		
	Xenon flash lamp		■	■
Ambient Light Protection	Measurement with open shaft possible due to proprietary solution (patent pending)	■	■	■
Spectral Bandwidth	4 nm	■	■	
	1.8 nm			■
Smart Screen Display	Resistive touch screen	■	■	
	P-cap glass touch screen			■
Live ID System	2-D Barcode recognition for cell tests and reagent tests	■	■	■
	Barcode contains lot, expiry, and calibration data. Data stored with each measurement	■	■	■
Cell Size	16 mm round cells, 10, 20 and 50 mm rectangular cells with automatic recognition	■	■	■
	100 mm rectangular cells with automatic recognition			■
Cell Holder	Removable for easy cleaning	■	■	■
Methods	Programmed methods of all Spectroquant® cell and reagent tests, 99 user defined methods, 20 profiles for kinetics and absorbance scans each	■	■	■
Applications	Free preprogrammed applications: Bromate, Brewery packages (MEBAK/EBC/ASBC methods), Sugar (ICUMSA), Oil (DOBI, olive oil)	■	■	■
AQA Prime	Individual settings for all methods in AQA 1 (instrument check) and AQA 2 mode (system check) and pipette check	■	■	■
Sample Matrix Check	Easy access through setting menu to perform instrument supported matrix check for each method	■	■	■
Software Updates	Free method updates on our website	■	■	■
Languages	Navigation in 28 built-in languages	■	■	■
Communication Interfaces	USB: 2 x USB-A (for printer, USB memory devices, keyboard or barcode reader), 1 x USB-B; Ethernet: LAN connection	■	■	■

SPECTROQUANT® TEST KITS

Parameters A-Z

	Parameter	Measuring Range of the Spectroquant® Prove Instruments [mg/L]	Citation Form	No. of Tests	Method
USEPA	Ammonium Cell Test	0.010 – 2.000 0.01 – 2.58 0.010 – 2.000 0.01 – 2.43	NH4-N NH4 NH3-N NH3	25	Indophenol Blue
USEPA	Ammonium Test	0.010 – 3.00 0.013 – 3.86 0.010 – 3.00 0.016 – 3.65	NH4-N NH4 NH3-N NH3	250	Indophenol Blue
USEPA	Ammonium Cell Test	0.20 – 8.00 0.26 – 10.30 0.20 – 8.00 0.24 – 9.73	NH4-N NH4 NH3-N NH3	25	Indophenol Blue
USEPA	Ammonium Test	2.0 – 150 2.6 – 193 2.0 – 150 2.4 – 182	NH4-N NH4 NH3-N NH3	100	Indophenol Blue
USEPA	Ammonium Cell Test	4.0 – 80.0 5.2 – 103.0 4.0 – 80.0 4.9 – 97.3	NH4-N NH4 NH3-N NH3	25	Indophenol Blue
	Calcium Test	0.20 – 4.00	Ca	100	Phthalein Derivate
	Chloride Test	0.10 – 5.00	Cl	100	Iron(III)-Thiocyanate
	Chloride Cell Test	0.5 – 15.0	Cl	25	Iron(III)-Thiocyanate
	Chloride Test	2.5 – 250	Cl	100	Iron(III)-Thiocyanate
	Chloride Cell Test	5 – 125	Cl	25	Iron(III)-Thiocyanate
	Chromate Test C) for the Determination of Chromium (VI)	0.010 – 3.00 0.02 – 6.69	Cr CrO4	250	Diphenylcarbazide
USEPA	Chromate Cell Test for the Determination of Chromium (VI) and Chromium (Total)	0.05 – 2.00 0.11 – 4.46	Cr CrO4	25	Diphenylcarbazide
USEPA	COD Cell Test	500 – 10,000	COD	25	Oxidation with Chromosulfuric Acid, Determination as Chromium(III)
USEPA	COD Cell Test	5,000 – 90,000	COD	25	Oxidation with Chromosulfuric Acid, Determination as Chromium(III)
USEPA	COD Cell Test for Seawater / High Chloride Contents	50 – 3,000	COD	25	Oxidation with Chromosulfuric Acid, Determination as Chromium(III)

Reference to Norms and Standards / Comments	Pipette Volume [mL]	Cell Size [mm]	Accuracy [mg/L]	Areas of Application	VWR Cat. No.
Analogous EPA 350.1, APHA 4500-NH3 F, ISO 7150-1, DIN 38406-5	5	-	±0.050	Food Testing	EM1.14739.0001
Analogous EPA 350.1, APHA 4500-NH3 F, ISO 7150-1, DIN 38406-5	0.6 + 5.0	10, 20, 50	±0.016	Food Testing	EM1.14752.0002
Analogous EPA 350.1, APHA 4500-NH3 F, ISO 7150-1, DIN 38406-5	1	-	±0.19	Food Testing	EM1.14558.0001
Analogous EPA 350.1, APHA 4500-NH3 F, ISO 7150-1, DIN 38406-5	0.1 + 0.2 + 5.0	10	±1.7	Food Testing	EM1.00683.0001
Analogous EPA 350.1, APHA 4500-NH3 F, ISO 7150-1, DIN 38406-5	0.1	-	±1.9	Food Testing	EM1.14559.0001
-	0.5 + 5.0	10	±0.11	Beverages	EM1.00049.0001
Analogous EPA 325.1, APHA 4500-CI- E	0.20 + 10	50	±0.10	Food Testing	EM1.01807.0007
Analogous EPA 325.1, APHA 4500-CI- E	0.25 + 10	-	±0.3	Food Testing	EM1.01804.0007
Analogous EPA 325.1, APHA 4500-CI- E	1.0 + 5.0 + 0.5 + 2.5	10	±1.0	food Testing	EM1.14897.0007
Analogous EPA 325.1, APHA 4500-CI- E	0.5 + 1.0	-	±5	Food Testing	EM1.14730.0007
Analogous APHA 3500-Cr B, DIN 38405-24	5	10, 20, 50	±0.012	Milk Dairy Products	EM1.14758.0001
Analogous APHA 3500-Cr B, DIN 38405-25	5.0 (+10)	-	±0.04	Milk Dairy Products	EM1.14552.0001
Analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	1	-	±143	Beverages, Food Testing, Milk Dairy Products	EM1.14555.0007
Analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	0.1	-	±1,151	Beverages, Food Testing, Milk Dairy Products	EM1.01797.0007
Chloride depletion method corresponds to DIN 38409-41-2, method corresponds to DIN ISO 15705, analogous EPA 410.4, APHA 5220 D and ASTM D1252-06 B	20 + 25 + 3.0	-	±44	Beverages	EM1.17059.0007

SPECTROQUANT® TEST KITS

Parameters A-Z

Parameter	Measuring Range of the Spectroquant® Prove Instruments [mg/L]	Citation Form	No. of Tests	Method
Hydrogen Peroxide Test	0.015 – 6.00	H2O2	100	Neocuproin
Hydrogen Peroxide Cell Test	2.0 – 20.0 0.25 – 5.00	H2O2 H2O2	25	Titanyl Sulfate
Iron Test	0.0005 – 0.0100* 0.0025 – 5.00* 0.005 – 5.00	Fe	250	Triazine
Iron Test	0.010 – 5.00	Fe	150	1,10-Phenanthroline
Iron Cell Test	0.05 – 4.00	Fe	25	Triazine
Lead Cell Test	0.10 – 5.00	Pb	25	PAR
Nickel Test	0.02 – 5.00	Ni	250	Dimethylglyoxime
Nickel Cell Test	0.10 – 6.00	Ni	25	Dimethylglyoxime
Nitrogen (Total) Cell Test	0.5 – 15.0	N	25	Koroleff Digestion, 2,6-Dimethylphenol
Nitrogen (Total) Cell Test	0.5 – 15.0	N	25	Koroleff Digestion, Nitrospectral
Nitrogen (Total) Cell Test	10 – 150	N	25	Koroleff Digestion, 2,6-Dimethylphenol
USEPA Phosphate Test (Ortho-phosphate)	1.0 – 100.0 3 – 307 2 – 229	PO4-P PO4 P2O5	100	Phosphomolybdenum Blue
Potassium Cell Test	5.0 – 50.0	K	25	Kalignost®, Turbidimetric
Sulfite Cell Test	0.8 – 16.00 1.0 – 20.00 0.05 – 3.00 0.04 – 2.40	SO2 SO3 SO3 SO2	25	Ellman's Reagent
Sulfite Test	1.0 – 60.0 0.8 – 48.0	SO3 SO2	150	Ellman's Reagent

* With Prove 600

Reference to Norms and Standards / Comments	Pipette Volume [mL]	Cell Size [mm]	Accuracy [mg/L]	Areas of Application	VWR Cat. No.
-	8.0 + 0.5	10, 20	±0.033	Beverages, Food Testing, Milk Dairy Products	EM1.18789.0001
Analogous DIN 38409-15 for determinations in the low measuring range see manual of instrument	10 10	- 50	±0.9	Beverages, Food Testing, Milk Dairy Products	EM1.14731.0001
-	5	100 100 10, 20, 50	±0.014	Food Testing	EM1.14761.0002
Differentiation between Fe(II) and Fe(III) possible, analogous APHA 3500-Fe B, DIN 38406-1	0.5 + 8.0	10, 20, 50	±0.024	Food Testing	EM1.00796.0007
-	5	-	±0.06	Food Testing	EM1.14549.0001
-	5	-	±0.08	Food Testing	EM1.14833.0001
-	5	10, 20, 50	±0.03	Beverages	EM1.14785.0007
-	5	10, 20, 50	±0.11	Beverages	EM1.14554.0001
Digestion analogous DIN EN ISO 11905-1, determination analogous DIN 38405-9	1.0 + 10	-	±0.5	Milk Dairy Products	EM1.00613.0001
Digestion analogous to DIN EN ISO 11905-1	1.5 + 10	-	±0.6	Milk Dairy Products	EM1.14537.0001
Digestion analogous DIN EN ISO 11905-1, determination analogous DIN 38405-9	1.0 + 9.0	-	±5.0	Milk Dairy Products	EM1.14763.0001
Analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	0.5 + 8.0	10	±1.4	Food Testing	EM1.00798.0007
-	2	-	±2.2	Food Testing	EM1.14562.0001
For determinations of the low measuring range see manual Prove	3.0 + 7.0	- 50 50	±0.4	Beverages, Food Testing	EM1.14394.0001
-	2.0 + 3.0 + 5.0	-	±1.0	Beverages, Food Testing	EM1.01746.0001

ANALYTICAL CHROMATOGRAPHY

Do you need to separate the compounds in your sample, or require more detailed investigation? We offer a wide range of advanced chromatography and sample preparation products to support your application.

HPLC columns for different separations

- Chromolith®: Low pressure, fast analysis, long column lifetime [VWR Cat. No. **EM1.52022.0001**]
- Purospher® Star: Excellent peak symmetry, high separation efficiency, extended pH stability, batch-to-batch reproducibility [VWR Cat. No. **48219-488**]
- SeQuant® ZIC®-HILIC and ZIC®-cHILIC: Superior selectivity for separating polar hydrophilic compounds [VWR Cat. No. **10144-126**]



Thin layer chromatography from the world leader

Coating Material	Format [cm]	Layer Thickness	Content	Backing	VWR Cat. No.
TLC Silica Gel 60 F254	20 x 20	250 µm	25 Plates	Glass	EM1.05715.0001
	10 x 20	250 µm	50 Plates	Glass	EM1.05729.0001
	5 x 20	250 µm	100 Plates	Glass	EM1.05714.0001
	5 x 10	250 µm	200 Plates	Glass	EM1.05719.0001
	2.5 x 7.5	250 µm	500 Plates	Glass	EM1.15341.0001
	2.5 x 7.5	250 µm	100 Plates	Glass*	EM1.05794.0001
	2.5 x 7.5	250 µm	100 Plates	Glass**	EM1.15327.0001
	20 x 20	200 µm	25 Sheets	Aluminum	EM1.05554.0001
	5 x 20	200 µm	100 Sheets	Aluminum	EM1.05534.0001
TLC Silica Gel 60	20 x 20	250 µm	25 Plates	Glass	EM1.05721.0001
	20 x 20	200 µm	25 Sheets	Aluminum	EM1.05553.0001
HPTLC Silica Gel 60 F254	20 x 10	200 µm	50 Plates	Glass	EM1.05642.0001

* Paper box
** Plastic box



SOLVENTS & INORGANIC REAGENTS

Instrumental Analysis Solvents for

HPLC, LC/MS, Spectroscopy/Spectrophotometry, Gas Chromatography, UV/VIS and infrared spectroscopy

EMPARTA Solvents

- Specification in accordance with newest edition of ACS

EMSURE Solvents

- Premium grade for all regulated and highly demanding lab applications



Classical inorganic analysis



Salts



Caustic alkalis and bases



Acids



Metals and metal oxides

CERTIPUR® STANDARD SOLUTIONS

Parameters A-Z

Certipur® standard solutions, concentration 1,000 mg/L

Certipur® standard solutions are traceable to standard reference materials from NIST, and accredited according to ISO/IEC 17025 guidelines. They can be easily diluted to different concentrations to suit your needs.

Parameter	Volume	VWR Cat. No.
A Ammonium	500 mL	EM1.19812.0500
Arsenic	100 mL	EM1.19773.0100
B Boron	100 mL	EM1.19500.0100
C Cadmium	100 mL	EM1.19777.0100
Calcium	100 mL	EM1.19778.0100
Chloride	500 mL	EM1.19897.0500
Chromium	100 mL	EM1.19779.0100
Copper	100 mL	EM1.19786.0100
Cyanide	500 mL	EM1.19533.0500
F Fluoride	500 mL	EM1.19814.0500
I Iron	100 mL	EM1.19781.0100
M Magnesium	100 mL	EM1.19788.0100
Manganese	100 mL	EM1.19789.0100
Molybdenum	100 mL	EM1.70227.0100

Parameter	Volume	VWR Cat. No.
N Nickel*	1,000 mL	EM1.09989.0001
Nitrate	500 mL	EM1.19811.0500
Nitrite	500 mL	EM1.19899.0500
P Phosphate	500 mL	EM1.19898.0500
Potassium	100 mL	EM1.70230.0100
S Silicon	100 mL	EM1.70236.0100
Silver	100 mL	EM1.19797.0100
Sulfate	500 mL	EM1.19813.0500
T TOC	100 mL	EM1.09017.0100
V Vanadium	100 mL	EM1.70245.0100
Z Zinc	100 mL	EM1.19806.0100

* Titrisol®

NUTRIENT ANALYSIS

Accurate information on protein and fiber content is needed for all food products. To simplify your work, we offer reliable kits for testing dietary fiber, and special reagents for Kjeldahl nitrogen analysis, which is the official method for determining protein content in food.



- Reagent test kits for easy determination of total amount of dietary fiber [VWR Cat. No. **EM1.12979.0001**]
- Kjeldahl tablets for nitrogen determination, also offered in micro-scale [VWR Cat. No. **EM1.15348.0250**, **EM1.16469.0250**, **EM1.18348.0250**, **EM1.18469.0250**]

KARL FISCHER REAGENTS



It's important to measure water content in products because it can affect their quality, texture, shelf life, chemical stability and reactivity.

We offer all products required for Karl Fischer titration:

- **Volumetric reagents**
- **One-component reagents**
- **Two-component reagents:** special reagents for determining water in aldehydes, ketones and other substances that are difficult to solubilize
- **Coulometric reagents:** special solvents for oils and fats
- **Water standards** for titer determination and instrument monitoring

Volumetric Titration Reagents

VWR Cat. No.	Description	Pack Size	38 mm Bottle Neck
EM1.88001.1038	COMBITITRANT 1	1 L	38/430 coated
89423-864	COMBITITRANT 2	1 L	38/430 coated
89423-856	COMBITITRANT 2	2.5 L	38/430 coated
89423-872	COMBITITRANT 5	1 L	38/430 glass
89423-868	COMBITITRANT 5	2.5 L	38/430 coated
EM1.88006.1000	COMBITITRANT 5 KETONE	1 L	38/430 coated
89423-874	COMBIMETHANOL	1 L	38/430 glass
89423-876	COMBIMETHANOL	2.5 L	38/430 glass
89423-860	TITRANT 5	1 L	38/430 coated
EM1.88010.2500	TITRANT 5	2.5 L	38/430 coated
89423-862	SOLVENT FOR VOLUMETRIC	1 L	38/430 glass
EM-AX1698A-3	COMPOSITE 5	2 L	38/430 coated
EM-AX1698A-5	COMPOSITE 5	4 L	38/430 coated
102465-504	COMPOSITE 5	1 L	38/430 coated
EM-AX1698B-3	COMPOSITE 2	2 L	38/430 coated
EM-AX1698B-5	COMPOSITE 2	4 L	38/430 coated
EM-AX1698B-6	COMPOSITE 2	1 L	38/430 coated
EM-AX1698D-5	COMPOSITE 5K KETONE	4 L	38/430 coated
EM-AX1698D-6	COMPOSITE 5K KETONE	1 L	38/430 coated
EM-AX1698E-6	COMPOSITE 2K KETONE	1 L	38/430 coated
EM-AX1699B-3	SOLVENT S	2 L	38/430 coated
EM-AX1699B-5	SOLVENT S	4 L	38/430 coated
EM-AX1699B-6	SOLVENT S	1 L	38/430 coated
VWR Cat. No.	Description	Pack Size	GL-45 Bottle Neck
EM1.88001.1045	COMBITITRANT 1	1 L	GL45 coated
EM1.88002.1045	COMBITITRANT 2	1 L	GL45 coated
EM1.88002.2545	COMBITITRANT 2	2.5 L	GL45 coated
EM1.88005.1045	COMBITITRANT 5	1 L	GL45 coated
EM1.88005.2545	COMBITITRANT 5	2.5 L	GL45 coated
EM1.88006.1045	COMBITITRANT 5 KETONE	1 L	GL45 coated
EM1.88009.1045	COMBIMETHANOL	1 L	GL45 glass
EM1.88010.1045	TITRANT 5	1 L	GL45 glass
EM1.88011.1045	TITRANT 2 TITRANT	1 L	GL45 coated
EM1.88015.1045	SOLVENT FOR VOLUMETRIC	1 L	GL45 glass
EM1.88020.1045	COMBISOLVENT OIL SOLVENT	1 L	GL45 glass

Coulometric Titration Reagents

VWR Cat. No.	Description	Pack Size	38 mm Bottle Neck
EM-AX1697CN-1	COULOMAT C SAFER FORMULATION	25 mL	38/430 glass
EM-AX1697CN-30	COULOMAT C SAFER FORMULATION	2 L	38/430 glass
EM-AX1697AN-1	COULOMAT A SAFER FORMULATION	500 mL	38/430 coated
EM-AX1697AN-4	COULOMAT A SAFER FORMULATION	1 L	38/430 coated
EM-AX1697AN-30	COULOMAT A SAFER FORMULATION	4 L	38/430 coated
EM-AX1697A-1	COULOMAT A	500 mL	38/430 coated
EM-AX1697A-30	COULOMAT A	4 L	38/430 coated
EM-AX1697C-1	COULOMAT C	25 mL	38/430 glass
EM-AX1697C-30	COULOMAT C	2 L	38/430 coated
EM-AX1697E-1	COULOMAT AK ALDEHYDES & KETONE	1 L	38/430 coated
EM-AX1697E-30	COULOMAT AK ALDEHYDES & KETONE	4 L	38/430 coated
EM-AX1697F-1	COULOMAT CK KETONE	25 mL	38/430 glass
EM-AX1699EN-5	SOLVENT KN	4 L	38/430 glass
EM-AX1699EN-6	SOLVENT KN	1 L	38/430 glass
EM-AX1699M-6	METHANOL ANHYDROUS	1 L	38/430 glass
VWR Cat. No.	Description	Pack Size	GL-45 Bottle Neck
EM1.09257.0500	COMBICOULOMAT SINGLE SOL-FRITLESS	500 mL	GL45 glass
EM1.09255.0500	COMBICOULOMAT SINGLE SOL-FRITTED	500 mL	GL45 glass

Water Standards for Instrument Calibration

VWR Cat. No.	Description	Pack Size	
EM1.88050.0010	WATER STANDARD 0.01%	10 x 8 mL	Ampoule
EM1.88051.0010	WATER STANDARD 0.1%	10 x 8 mL	Ampoule
EM1.88052.0010	WATER STANDARD 1%	10 x 8 mL	Ampoule
EM1.88054.0005	WATER STANDARD OVEN	5 g	Solid
EM1.88055.0010	WATER STANDARD FOR OIL SAMPLES	10 x 8 mL	Ampoule

REFLECTOQUANT® SYSTEMS TAKE YOUR TEST FURTHER

Mobile accuracy with test strips

The Reflectoquant® system gives you all the tools you need for high quality, low cost analysis. Compact and easy-to-use, the system allows you to monitor raw materials and obtain precise quantitative results.

					VWR Cat. No.
RQflex® 10 Reflectometer					EM1.16970.0001
Test Kits					
Parameter	Graduation	No. of tests	Method	Type	VWR Cat. No
Ascorbic Acid Test	25 – 450 mg/L Ascorbic Acid	50	Phosphormolybd. Blue		EM1.16981.0001
Ascorbic Acid Test RQeasy®	25 – 450 mg/L Ascorbic Acid	50	Phosphormolybd. Blue		EM1.17963.0001
Calcium Test	2.5 – 45.0 mg/L Ca	50	Glyoxal-bis-(2-hydroxyanil)	Reagent, Incl.	EM1.16993.0001
Calcium Test	5 – 125 mg/L Ca	50	Phthalein Complexone		EM1.16125.0001
Glucose Test	1 – 100 mg/L Glucose	50	Enzymatic Reaction		EM1.16720.0001
Hydroxymethylfurfural Test	1.0 – 60.0 mg/L HMF	50	Enzymatic Reaction		EM1.17952.0001
Iron Test	0.5 – 20.0 mg/L Fe(II)	50	Triazine		EM1.16982.0001
Iron Test	20 – 200 mg/L Fe(II)	50	2,2'-Bipyridine		EM1.16983.0001
Lactic Acid Test	3.0 – 60.0 mg/L Lactic Acid	50	Enzymatic Reaction		EM1.16127.0001
Magnesium Test	5 – 100 mg/L Mg	50	Phthalein Complexone		EM1.16124.0001
Malic Acid Test	5.0 – 60.0 mg/L Malic Acid	50	Enzymatic Reaction		EM1.16128.0001
Nitrate Test	3 – 90 mg/L NO3	50	Modified Griess' Reaction		EM1.16995.0001
Nitrate Test	5 – 225 mg/L NO3	50	Modified Griess' Reaction		EM1.16971.0001
Nitrate Test RQeasy®	5 – 250 mg/L NO3	50	Modified Griess' Reaction		EM1.17961.0001
Nitrite Test	0.5 – 25.0 mg/L NO2	50	Griess' Reaction		EM1.16973.0001
pH Test	pH 1.0 – 5.0	50	Mixed Indicator		EM1.16894.0001
pH Test	pH 4.0 – 9.0	50	Mixed Indicator		EM1.16996.0001
Phosphate Test	5 – 120 mg/L PO4	50	Phosphormolybd. Blue	Reagent, Incl.	EM1.16978.0001
Potassium Test RQflex® Plus	1.0 – 25.0 mg/L K	100	Kalagnost®, Turbidimetric		EM1.17945.0001
Potassium Test	0.25 – 1.20 g/L K	50	Dipicrylamine	Reagent, Incl.	EM1.16992.0001
Sulfite Test	10 – 200 mg/L SO3	50	Nitroprusside / Zn-hexacyanoferrate		EM1.16987.0001
Total Hardness Test	0.1 – 30.0 °d	50	Phthalein Complexone		EM1.16997.0001
Total Sugar Test (Glucose and Fructose)	65 – 650 mg/L Total Sugar	50	Enzymatic Reaction	Reagent, Incl.	EM1.16136.0001
Urea Test in Milk Application	0.2 – 7.0 mg/L NH4	50	Indophenol Blue	Reagent, Incl.	EM1.16892.0001



VWR Cat. No.

EM1.16970.0001

Test Kits

Beer Processing	Food Testing	Juices	Milk Products	Mineral Water	Soft Drinks
■	■	■	■		■
■	■	■	■		■
■	■	■	■	■	■
■	■	■	■	■	■
	■	■			
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MQuant™ TEST STRIPS SCREEN ON THE GO

Highly reliable and portable, **MQuant™** test strips are designed for semi-quantitative determination of ions and compounds. The test strips save you considerable time and costs during analyses, quality checks and in-process controls. Thanks to the PET film backing material and the low reagent content, the test strips are also easy to dispose of.

it's that
simple!



01 Sample preparation

The MQuant™ Test contains all necessary reagents, including those required for sample pre-treatment.

02 Testing



Remove one MQuant™ test strip from the protective tube.



Dip strip into the test solution to wet reaction zones. Remove excess liquid by shaking test strip or drawing it across the edge of the vessel.



After the specified reaction time (maximum one minute), compare the color of the reaction zone with the color scale printed on the tube label to determine the concentration.

03 Disposal

MQuant™ test strips can be safely and easily disposed of with regular waste.

Shelf-life and storage

When stored in a cool (refrigeration is necessary in some cases) and dry area, the test strips can be used up to three years (details printed in the pack). The tube must be closed immediately after removal of each strip to ensure the remaining test strips are protected.

Quality assurance

We check and calibrate all MQuant™ tests and comparison colors using certified standard solutions. These solutions can be traced directly to primary reference materials from NIST and PTB.

Parameter	Graduation	No. of Tests	Method	Type	VWR Cat. No	Beer Processing	Food Testing	Juices	Milk Products	Mineral Water	Soft Drinks
Aluminium Test	10–25–50–100–250 mg/L Al	100	Aurintricarboxylic Acid	Reagent, Incl.	EM1.10015.0001	■	■	■		■	■
Arsenic Test	0.02–0.05–0.1–0.2–0.5 mg/L As 0.1–0.5–1.0–1.7–3.0 mg/L As	100	Modified Gutzeit Test	Reagent, Incl.	EM1.17917.0001					■	
Ascorbic Acid Test	50–100–200–300–500–700–1,000–2,000 mg/L ascorbic acid	100	Phosphomolybdenum Blue		EM1.10023.0001	■	■	■			■
Calcium Test	10–25–50–100 mg/L Ca	60	Glyoxal-bis-hydroxyanil	Reagent, Incl.	EM1.10083.0001	■	■	■	■	■	■
Carbonate Hardness Test	5–10–15–20–30 °e	100	Mixed Indicator		EM1.10648.0001					■	
Chloride Test	500–1,000–1,500–2,000–≥3,000 mg/L Cl	100	Silver Chromate		EM1.10079.0001		■				
Free Fatty Acids	0.5–1.0–2.0–3.0 mg/g KOH	100	pH Indicator		EM1.17046.0001		■				
Glucose Test	10–25–50–100–250–500 mg/L Glucose	50	Enzymatic Reaction		EM1.17866.0001	■	■	■	■		■
Iron Test	3–10–25–50–100–250–500 mg/L Fe(II)	100	2,2'-Bipyridine		EM1.10004.0001		■	■	■		■
Nitrate Test	10–25–50–100–250–500 mg/L NO3	100	Modified Griess' Reaction		EM1.10020.0001		■	■		■	
Nitrate Test	0.5–1–2–5–10 mg/L NO2	75	Griess' Reaction		EM1.10057.0001		■				
Nitrite Test	2–5–10–20–40–80 mg/L NO2	100	Griess' Reaction		EM1.10007.0001		■				
Peroxidase Test	Yes/No Result	100	Enzymatic Reaction		EM1.17828.0001		■		■		
Peroxidase Test	0.5–2–5–10–25 mg/L H2O2	100	Enzymatic Reaction		EM1.10011.0001				■		
Peroxidase Test	1–3–10–30–100 mg/L H2O2	100	Enzymatic Reaction		EM1.10081.0001				■		
Phosphate Test	10–25–50–100–250–500 mg/L PO4	100	Molybdate Ion	Reagent, Incl.	EM1.10428.0001		■				
Sulfite Test	10–40–80–180–400 mg/L SO3	100	Nitroprusside/ Zn-hexacyanoferrate		EM1.10013.0001		■	■		■	■
Tin Test	10–25–50–100–200 mg/L Sn	50	Toluene-3, 4-dithiol	Reagent, Incl.	EM1.10028.0001		■	■	■		

MColorpHast™ TEST STRIPS SIMPLY READ THE COLOR... FAST

pH test strips and papers

MColorpHast™ makes pH measurement easier than ever. No instruments, sample preparation, maintenance, or cleaning electrodes. Simply read the color. The rapid method offers an accurate color scale for clear, reliable results. It's suitable for all types of media in environmental analysis and industrial in-process controls — even for highly turbid liquids. With our broad range of pH tests, you'll always have the optimal solution for your application.

TAKE THE FAST TRACK

SAFETYEDGE BOX



Performing pH measurements?

Enjoy the ultimate in security and simplicity with our SafetyEdge box. Its tamper-proof seal ensures that the box has not been opened, while its innovative flip-top corner allows easy removal of pH indicator strips, but prevents them from falling out.

Do you have special applications?

Simplify your workflow with our pH test strips for special requirements, like testing turbid samples or meat.

Shelf-life and storage

- Store at 10 – 25 °C to maintain top condition for 3 – 5 years
- Protect from light and moisture
- Close box immediately after removing each strip or paper



pH-indicator papers

Product	pH Measuring Range	Graduation	Roll Length	VWR Cat. No.
pH-Box	0.5 – 13.0	0.5–1.0–1.5–2.0–2.5–3.0–3.5–4.0–4.5–5.0–5.5–6.0–6.5–7.0–7.5–8.0–8.5–9.0–9.5–10.0–10.5–11.0–11.5–12.0–12.5–13.0	3 x 4.8 m	EM1.09565.0001
pH-Indicator Paper Universal Indicator	1 – 14	1.0–2.0–3.0–4.0–5.0–6.0–7.0–8.0–9.0–10.0–12.0–14.0	3 x 4.8 m	EM1.10962.0003
pH-Indicator Paper Universal Indicator	1 – 10	1.0–2.0–3.0–4.0–5.0–6.0–7.0–8.0–9.0–10.0	3 x 4.8 m	EM1.09526.0003
pH-Indicator Paper Acilit®	0.5 – 5.0	0.5–1.0–1.5–2.0–2.5–3.0–3.5–4.0–4.5–5.0	3 x 4.8 m	EM1.09560.0003
pH-Indicator Paper Neutralit®	5.5 – 9.0	5.5–6.0–6.5–7.0–7.5–8.0–8.5–9.0	3 x 4.8 m	EM1.09564.0003
pH-Indicator Paper Alkalit®	9.5 – 13.0	9.5–10.0–10.5–11.0–11.5–12.0–12.5–13.0	3 x 4.8 m	EM1.09562.0003

pH-indicator strips (non-bleeding)

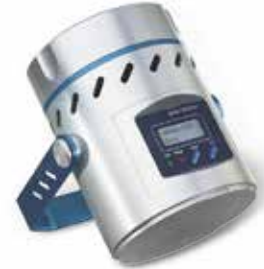
Product	pH Measuring Range	Graduation	No. of Strips	VWR Cat. No.
pH-Indicator Strips Universal Indicator	0 – 14	0–1–2–3–4–5–6–7–8–9–10–11–12–13–14	100	EM1.09535.0001
pH-Indicator Strips	0 – 6.0	0–0.5–1.0–1.5–2.0–2.5–3.0–3.5–4.0–4.5–5.0–5.5–6.0	100	EM1.09531.0001
pH-Indicator Strips	5.0 – 10.0	5.0–5.5–6.0–6.5–7.0–7.5–8.0–8.5–9.0–9.5–10.0	100	EM1.09533.0001
pH-Indicator Strips	7.5 – 14.0	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	100	EM1.09532.0001
pH-Indicator Strips	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	100	EM1.09584.0001
pH-Indicator Strips Special Indicator for pH-Measurements in Turbid Solutions (Suspensions)	2.0 – 9.0	2.0–3.0–4.0–5.0–6.0–7.0–8.0–9.0	100	EM1.09502.0001

MICROBIAL AIR MONITORING

Use our high-precision air samplers to easily and effectively monitor microorganisms in air and compressed gas.

MAS-100 NT®: Industry standard for routine air monitoring
[VWR Cat. No. **EM1.09191.0001**]

MAS-100® Eco Airsampler: Economical, small, and lightweight microbial air sampler
[VWR Cat. No. **EM1.09227.0001**]



A SUPERIOR SOLUTION TO SAFETY

Granulated Media from MilliporeSigma



No dust, no inhalation risk, no mess — just quick, easy preparation of high quality media.

Description	Pkg Size	VWR Cat. No.
LB Agar MILLER	500 g	EM1.10283.0500
LB Broth MILLER	500 g	EM1.10285.0500
Terrific Broth	500 g	EM1.01629.0500
Tryptic Soy Agar	500 g	EM1.05458.0500
Tryptic Soy Broth	500 g	EM1.05459.0500
Tryptone, Pancreatic	1 kg	EM1.07213.1000
Yeast Extract	500 g	EM1.03753.0500

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