# SCREEN ON THE GO

# what is the quality of your milk?

#### **Detect peroxidase activity in milk**

#### The application

- The quality of milk depends decisively on its successful heat treatment.
- If milk is heated to above 85° C, the enzyme lactoperoxidase (POD) is completely inactivated.
- The ultrahigh temperature control (UHT) of the milk can thus be documented.
- When lactoperoxidase is detected, pasteurization temperatures have been maintained and milk has been successfully pasteurized.
- For dairies, a yes / no statement is usually sufficient.

#### Our solution: MQuant™ Peroxidase test strips

With the qualitative MQuant<sup>™</sup> Peroxidase Test, you can now determine the enzyme from your milk sample quickly and cost-effectively, instead of the more time-consuming photometry, and thus prove that their milk has been gently heated.

The test works just as reliably but significantly faster than the photometric reference method (DIN 10483-1). The rapid test is handy and can be used flexibly, directly at the sampling site.

#### **Benefits**

- Easy determination of peroxidase activity in milk
- Flexible application directly at the sampling site
- Low cost, low time requirement
- Easy evaluation with a color scale, whether activity is present

Learn more at: www.merckmillipore.com/aaf





## Test strips

MQuant™

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#### Test strips

Highly reliable and portable,  $\mathbf{MQuant}^{\mathsf{TM}}$  test strips are designed for semi-quantitative determination of ions and compounds. These versatile strips can be used in concentration ranges as low as below 1 mg/L up to the g/L range.

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.



#### Semi-quantitative measurement of glucose

#### The application

- Glucose is an important parameter in many foods and beverages, and is regularly tested in raw materials and final products.
- Traditional glucose analysis involves time-consuming enzymatic determination in laboratories.

#### Our solution: MQuant™ Glucose test strips

 $MQuant^{TM}$  Glucose test strips allow fast, cost-effective analysis anywhere. They deliver reliable semi-quantitative results, and are ideal for quick on-the-spot screening of samples when there's no time for lab analysis.

#### Benefits

- Pocket-sized tests for on-site or laboratory use
- Easy disposal
- Simple analysis with illustrated instructions on label
- Fast, accurate results in minutes
- Cost-effective solution

For more applications, please visit: www.merckmillipore.com/aaf

## rast, easy, safe

Fast results, easy usage, safe disposal

all for you ...

All concentration ranges available

erilliant color scales for exact results





#### **Further MQuant™ applications**

#### Check the quality of frying oils

Deep-frying causes oils and fats to decompose over time, producing free fatty acids. When these acids exceed an acceptable limit, they affect the quality of fried food. With MQuant $^{\text{TM}}$  Free Fatty Acids visual test strips, you can easily monitor the quality of your oil and determine the right time for a change. (MQuant $^{\text{TM}}$  Free Fatty Acids | Ord. No. 1.17046.0001)

#### **Ensure safety after disinfection**

Residues from disinfectants used in food production, hospitals, and biotech or pharmaceutical environments can cause serious problems.  $MQuant^{TM}$  test strips help you monitor the cleaning process by checking for effective concentrations of disinfectants. We offer tests for: chlorine, formaldehyde, peracetic acid, peroxide and quaternary ammonium compounds.





# strate!

Sample preparation

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



# Testing



Remove one  $MQuant^{TM}$  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.

Disposa

 $\textit{MQuant}^{\text{\tiny{TM}}} \; \textit{test strips can be safely and easily disposed of with regular waste}.$ 

#### 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 $^{\text{TM}}$  tests and comparison colors using certified standard solutions. These solutions can be traced directly to primary reference materials from NIST and PTB.



Want to add your branding to our test strips or test tubes? Choose from the following options:

#### Single sealed test strips

Customized test strips are ideal for inserting in books, magazines and brochures, or for adhering to products.

#### Tubes with list items or tailor-made test strips

Personalize almost anything, from the design of the color card to the final product, and even the measuring range.

#### **Innovative customized products**

If the test you need is not offered, we'll produce tailor-made test strips to suit your individual requirements.

To find out about our minimum quantity requirements, and for more details, please visit: www.merckmillipore.com/customized-test-strips

# your brand our test strips

# MQuant<sup>™</sup>

## Test strips | Parameters A-P

	Parameter	Graduation	No. of tests	Ord. No.	Method	Туре
A	Aluminium Test	10-25-50-100-250 mg/L Al	100	1.10015.0001	Aurintricarboxylic acid	Reagent, incl.
	Ammonium Test	10-30-60-100-200-400 mg/L NH₄	100	1.10024.0001	Neßler	Reagent, incl.
	Arsenic Test	0.005-0.010-0.025-0.05-0.10-0.25-0.5 mg/L As	100	1.17927.0001	modified Gutzeit test	Reagent, incl.
	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	1.17917.0001	modified Gutzeit test	Reagent, incl.
	Ascorbic Acid Test	50-100-200-300-500-700- 1,000-2,000 mg/L ascorbic acid	100	1.10023.0001	Phosphomolybdenum blue	
В	Blank strip		100	1.11860.0001		
C	Calcium Test	10-25-50-100 mg/L Ca	60	1.10083.0001	Glyoxal-bis-hydroxyanil	Reagent, incl.
	Carbonate Hardness Test	5-10-15-20-30 °e	100	1.10648.0001	Mixed indicator	
	Chloride Test	500-1,000-1,500-2,000-≥3,000 mg/L Cl	100	1.10079.0001	Silver chromate	
	Chlorine Test (free chlorine)	0.5-1-2-5-10-20 mg/L Cl <sub>2</sub>	75	1.17925.0001	Redox reaction	
	Chlorine Test (free chlorine)	25-50-100-200-500 mg/L Cl <sub>2</sub>	100	1.17924.0001	Redox reaction	
	Chromate Test	3–10–30–100 mg/L CrO₄	100	1.10012.0001	Diphenylcarbazide	Reagent, incl.
	Cobalt Test	10-30-100-300-1,000 mg/L Co	100	1.10002.0001	Rhodanide	
	Copper Test	10-30-100-300 mg/L Cu	100	1.10003.0001	2,2'-Biquinoline	
	Cyanide Test	1-3-10-30 mg/L CN	100	1.10044.0001	König reaction	Reagent, incl.
F	Formaldehyde Test	10-20-40-60-100 mg/L HCHO	100	1.10036.0001	Triazole	Reagent, incl.
	Free Fatty Acids	0.5-1.0-2.0-3.0 mg/g KOH	100	1.17046.0001	pH indicator	
G	Glucose Test	10-25-50-100-250-500 mg/L Glucose	50	1.17866.0001	Enzymatic reaction	
I	Iron Test	3-10-25-50-100-250-500 mg/L Fe(II)	100	1.10004.0001	2,2'-Bipyridine	
L	Lead Test	20-40-100-200-500 mg/L Pb	100	1.10077.0001	Rhodizonic acid	Reagent, incl.
M	Manganese Test	2-5-20-50-100 mg/L Mn	100	1.10080.0001	Oxidation/Redox indicator	Reagent, incl.
	Molybdenum Test	5-20-50-100-250 mg/L Mo	100	1.10049.0001	Toluene-3,4-dithiol	Reagent, incl.
N	Nickel Test	10-25-100-250-500 mg/L Ni	100	1.10006.0001	Dimethylglyoxime	
	Nitrate Test	10-25-50-100-250-500 mg/L NO <sub>3</sub>	100	1.10020.0001	modified Griess' reaction	
	Nitrate Test	10-25-50-100-250-500 mg/L NO <sub>3</sub>	25	1.10020.0002	modified Griess' reaction	
	Nitrate Test	10-25-50-100-250-500 mg/L NO <sub>3</sub>	1,000	1.10092.0021	modified Griess' reaction	Individually sealed
	Nitrite Test	0.5-1-2-5-10 mg/L NO <sub>2</sub>	75	1.10057.0001	Griess' reaction	
	Nitrite Test	2-5-10-20-40-80 mg/L NO <sub>2</sub>	100	1.10007.0001	Griess' reaction	
	Nitrite Test	2-5-10-20-40-80 mg/L NO <sub>2</sub>	25	1.10007.0002	Griess' reaction	
	Nitrite Test	0.1-0.3-0.6-1-2-3 g/L NO <sub>2</sub>	100	1.10022.0001	Griess' reaction	
P	Peracetic Acid Test	5-10-20-30-50 mg/L Peracetic acid	100	1.10084.0001	Redox reaction	
	Peracetic Acid Test	20-40-80-120-160 mg/L Peracetic acid	100	1.17976.0001	Redox reaction	
	Peracetic Acid Test	100–150–200–250–300–400–500 mg/L Peracetic acid	100	1.10001.0001	Redox reaction	
	Peracetic Acid Test	500-1,000-1,500-2,000 mg/L Peracetic acid	100	1.17922.0001	Redox reaction	
	Peroxidase Test	yes/no result	100	1.17828.0001	Enzymatic reaction	

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# $MQuant^{\text{\tiny TM}}$

### Test strips | Parameters P-Z

	Parameter	Graduation	No. of tests	Ord. No.	Method	Туре
P	Peroxide Test	0.5-2-5-10-25 mg/L H₂O₂	100	1.10011.0001	Enzymatic reaction	
	Peroxide Test	$0.5-2-5-10-25 \text{ mg/L H}_2\text{O}_2$	25	1.10011.0002	Enzymatic reaction	
	Peroxide Test	$1-3-10-30-100 \text{ mg/L H}_2\text{O}_2$	100	1.10081.0001	Enzymatic reaction	
	Peroxide Test	100-200-400-600-800-1,000 mg/L $H_2O_2$	100	1.10337.0001	Enzymatic reaction	
	Phosphate Test	10-25-50-100-250-500 mg/L PO₄	100	1.10428.0001	Molybdate ion	Reagent, incl.
	Potassium Test	250-450-700-1,000-1,500 mg/L K	100	1.17985.0001	Dipicrylamine	Reagent, incl.
O	Quaternary Ammonium	10-25-50-100-250-500 mg/L	100	1.17920.0001	Indicator	
	Compounds	Benzalkonium chloride				
S	Sulfate Test	<200->400->800->1200->1600 mg/L SO <sub>4</sub>	100	1.10019.0001	Ba-thorin complex	
	Sulfite Test	10-40-80-180-400 mg/L SO₃	100	1.10013.0001	Nitroprusside/	
					Zn-hexacyanoferrate	
T	Tin Test	10-25-50-100-200 mg/L Sn	50	1.10028.0001	Toluene-3,4-dithiol	Reagent, incl.
	Total Hardness Test	<4->5->9->18->26 °e	100	1.10025.0001	EDTA	
	Total Hardness Test	<4->5->9->18->26 °e	5,000	1.10029.0001	EDTA	Single test strips
	Total Hardness Test	<4->5->9->18->26 °e	1,000	1.10032.0001	EDTA	Individually sealed
	Total Hardness Test	>6->13->19->25->31 °e	100	1.10046.0001	EDTA	
	Total Hardness Test	>6->13->19->25->31 °e	25,000	1.10047.0013	EDTA	Individually sealed
	Total Hardness Test	<1.5; 1.5-2.5; >2.5 mmol/L CaCO <sub>3</sub>	100	1.17934.0001	EDTA	
Z	Zinc Test	0-4-10-20-50 mg/L Zn	100	1.17953.0001	Dithizone	

#### Reagent papers

Lead(II) acetate paper 3 rolls, each 4.8 meters	Ord. No. 1.09511.0003
Lead(II) acetate paper is used for the determination of sulfide and hydrogen sulfide	

Ord. No. 1.09512.0003

Potassium iodide-starch paper is used for the determination of oxidizing agents

Potassium iodide-starch paper, grade value Reag. Ph Eur, 3 rolls, each 4.8 meters

Parameter																		
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