

Discrete Industrial Analyzer System Reagents for Food and Other Sample Materials

Analyte	Code	Product name	Max. nbr. of tests/kit ⁽¹⁾	Method	Sample matrix	Interference filter nm ⁽²⁾	Test ranges	Unit
Acetaldehyde	984347	Acetaldehyde	250	Enzymatic test with acetaldehyde dehydrogenase	Food & beverage	340 / -	2-500	mg/L
	984396 ⁽³⁾	Acetaldehyde standard, 100 mg/L	-					
Acetic acid	984318	Acetic Acid	300	Enzymatic test with acetate kinase	Food & Beverage	340 / -	0.04-3.00	g/L
	984303 ⁽⁴⁾	Acetic acid	1000					
	984356	Acetic Acid (ACS)	150	Enzymatic test with acetyl-coenzyme A synthetase (ACS)	Food & Beverage	340 / -	0.04-3.00	g/L
Alpha-Amino Nitrogen	984342	Alpha-Amino Nitrogen (NOPA)	300	Colorimetric test with OPA (o-Phthaldialdehyde) and NAC (N-acetylcysteine)	Food & Beverage	340 / 700 (750)	20-300	mg/L
	984394 ⁽³⁾	NOPA Standard, 150 mg/L	-					
Alpha-Amylase	984373	Alpha-Amylase	200*	Enzymatic test with 4,6-ethylidene-(G7)-p-nitrophenyl-(G1)- α -D-maltoheptaoside (EPS-G7) as the substrate (equals to E-pNP-G7)	Enzyme, detergent	405 / -	10-7500	U/l
Ammonia	984320	Ammonia	300	Enzymatic test with glutamate dehydrogenase	Food & Beverage	340 / -	10-420	mg/L
	984766 ⁽⁴⁾	Ammonia	1000					
L-Ascorbic acid	984635	L-Ascorbic acid	250	Colorimetric test with the tetrazolium salt MTT	Food & Beverage	575 / -	50-2500	mg/L
L-Asparagine	984319 ⁽⁵⁾	L-Asparagine/L-Aspartic-Acid	350	Enzymatic test with malate hydrogenase and L-asparaginase	Food & Beverage	340 / -	20-500	mg/L
	981842	Washfluid	-					

* Kit configuration allows wide optimization range for reagent ratios. Tests/kit amount depends on the used application.

L-Aspartic Acid	984319 ⁽⁵⁾	L-Asparagine/L-Aspartic-Acid	350	Enzymatic test with malate hydrogenase	Food & Beverage	340 / -	20-500	mg/L
Bitterness ⁽⁶⁾	984353	BC System liquid	360	Column extraction of bittering components from beer and wort and subsequent photometric determination	Beer, Wort	275 / -	5-100	BU
	984354	BC Diluent						
	984355	BC Eluent						
Calcium	984374	Calcium (Ca)	350	Colorimetric test with Arsenazo III	Food & Beverage	660 / -	5-1000	mg/L
Citric Acid	984327	Citric acid	250	Enzymatic test with citrate lyase	Food & Beverage	340 / -	15-5000	mg/L
Cholesterol	984324	Cholesterol Food	300	Enzymatic test with cholesterol oxidase, peroxidase and with colorimetric indicator chinonimin	Food & Beverage	540 / -	20-1000	mg/L
	984391 ⁽³⁾	Cholesterol Food Std, 2000 mg/L	-					
Ethanol	984300	Ethanol	300	Enzymatic test with alcohol-dehydrogenase	Food & Beverage	340 / -	0.01-10	g/L
	984384 ⁽³⁾	Alcohol Standard. 0.5 g/L						
D-Fructose	984302	D-Fructose	300	Enzymatic test with hexokinase, phosphoglucose isomerase and glucose-6-phosphate dehydrogenase	Food & Beverage	340 / 600	0.7-200 5-500 ⁽⁷⁾	g/L mg/L
	984380 ⁽³⁾	Sugar Combination Std, 0.500 g/L	-					
(1,3/1,4)-Beta-Glucan	984305	Beta-Glucan (High MW)	350	Novel colorimetric test	Food & Beverage	405 / 600	15-500	mg/L
	984383 ⁽³⁾	Beta-Glucan Standard, 500 mg/L	-					
D-Gluconic Acid	984710	D-Gluconic Acid	250	Enzymatic test with 6-P-gluconate-dehydrogenase and gluconate kinase	Food & Beverage	340 / 750 (700)	50-5000	mg/L
D-Glucose	984304	D-Glucose	300	Enzymatic test with hexokinase and glucose-6-phosphate dehydrogenase	Food & Beverage	340 / 600	0.1-160 5-500 ⁽⁷⁾	g/L mg/L
	984764 ⁽⁴⁾	D-Glucose	1000					
	984380 ⁽³⁾	Sugar Combination Std, 0.500 g/L	-					

D-Glucose & D-Fructose	984314	D-Glucose+D-Fructose	300	Enzymatic test with hexokinase, phosphoglucose isomerase and glucose-6-phosphate dehydrogenase	Food & Beverage	340 / 600	0.04-200	g/L
	984313 ⁽⁴⁾	D-Glucose+D-Fructose	1000					
	984380 ⁽³⁾	Sugar Combination Std, 1.0 g/L	-					
D-Glucose & D-Fructose & Sucrose	984317	D-Glucose+D-Fructose+Sucrose	300	Enzymatic test with beta-fructosidase (Invertase), hexokinase, phosphoglucose isomerase and glucose-6-phosphate dehydrogenase	Food & Beverage	340 / 600	0.24-200	g/L
	984301 ⁽⁴⁾	D-Glucose+D-Fructose+Sucrose	1000					
	984380 ⁽³⁾	Sugar Combination Std, 1.5 g/L	-					
Glycerol	984316	Glycerol	300	Enzymatic test with glycerokinase, ADP dependent hexokinase and glucose-6-phosphate-dehydrogenase	Food & Beverage	340 / -	0.07-30	g/L
	984765 ⁽⁴⁾	Glycerol	1000					
	984386 ⁽³⁾	Glycerol Standard, 0.2 g/L	-					
L-Glutamic Acid	984636 ⁽⁵⁾	L-Glutamic Acid	300	Enzymatic test with glutamate dehydrogenase	Food & Beverage	492 / -	0.01-6	g/L
Iron	984326	Total Iron (Fe)	850	Colorimetric test with Ferene S	Food & Beverage	600 / -	0.03-5.5	mg/L
D-Isocitric acid	984322	D-Isocitric Acid	300	Enzymatic test with isocitrate-dehydrogenase	Food & Beverage	340 / -	10-600	mg/L
D-Lactic Acid	984306	D-Lactic Acid	300	Enzymatic test with D-lactate-dehydrogenase	Food & Beverage	340 / -	25-1600	mg/L
	984382 ⁽³⁾	Acid Combination Std, 200 mg/L	-					
L-Lactic Acid	984308	L-Lactic Acid	300	Enzymatic test with L-lactate-dehydrogenase	Food & Beverage	340 / -	20-1600	mg/L
	984382 ⁽³⁾	Acid Combination Std, 200 mg/L	-					
Lactose	984323	Lactose (Glucose) ⁽⁸⁾	300	Enzymatic test with galactosidase (Lactase), hexokinase and glucose-6-phosphate dehydrogenase	Food & Beverage	340 / -	0.05-15	g/L
	984390 ⁽³⁾	Lactose Standard, 1.00 g/L	-					
Lipase	984315	Lipase	500	Colorimetric test with methylresorufin	Enzyme, detergent	575 / -	16-1500	U/L
Magnesium	984358	Magnesium (Mg)	350	Colorimetric test with Xylidyl Blue I	Food & Beverage	510 / -	10-400	mg/L

L-Malic Acid	984310	L-Malic Acid	300	Enzymatic test with L-malate-dehydrogenase and glutamate-oxalacetate-transaminase	Food & Beverage	340 / 700 (750)	0.05-20	g/L
	984311 ⁽⁴⁾	L-Malic Acid	1000					
	984382 ⁽³⁾	Acid Combination Std, 0.500 g/L	-					
Oxalic Acid	984348	Oxalic Acid	250	Enzymatic test with oxalate oxidase	Food & Beverage	600 / 700	2-100	mg/L
	984393 ⁽³⁾	Oxalic Acid Standard, 45 mg/L	-					
pH	984349	pH (Colorimetric)	330	Colorimetric test with pH indicator dyes	Beer, Wort	575 / 700	3-7.2	pH at 37 °C
	984331 ⁽³⁾	ECM pH 4 Standard	-					
	984332 ⁽³⁾	ECM pH 7 Standard	-					
Polyphenols	984346	Total Polyphenol	280	Colorimetric test with Folin-Ciocalteu reagent	Food & Beverage	700 / -	50-3000	mg/L as Gallic acid
Potassium	984307	Potassium	300	Turbidimetric test with tetraphenylborate	Food & Beverage	540 / -	50-2500	mg/L
Proteins	984328	Total Protein (Biuret)	450	Colorimetric test with Biuret	Food & Beverage	540 / 700	0.5-15	g/L
Sulfur dioxide	984634	SO2 Free	430	Colorimetric test with pararosaniline	Food & Beverage	575 / 750 (700)	2-150	mg/L
	984345	SO2 Total	300	Colorimetric test with DTNB			405 / 750 (700)	20-300
Sucrose	984312	Sucrose (Total Glucose) ⁽⁸⁾	300	Enzymatic test with beta-fructosidase, hexokinase and glucose-6-phosphate dehydrogenase	Food & Beverage	340 / 600	0.1-100	g/L
	984380 ⁽³⁾	Sugar Combination Std, 0.75 g/L	-				15-500 ⁽⁷⁾	mg/L
Tartaric Acid	984309	Tartaric acid ⁽⁵⁾	480	Colorimetric test with ammonium monovanadate	Food & Beverage	540 / -	0.5-12	g/L
Total Acids	984632	Total Acids (Wine pH 7)	400	Colorimetric tests with bromothymol blue	Food & Beverage	620 / 700 (750)	1-18	g/L as Tartaric acid
	984633	Total Acids (Juice pH 8)	400				0.5-12	g/L as Sulfuric acid
Urea	984321	Urea (Ammonia) ⁽⁹⁾	300	Enzymatic test with urease and glutamate dehydrogenase	Food & Beverage	340 / -	10-720	mg/L
	984388 ⁽³⁾	Urea Standard	-					

NOTE:

1. Number of tests/ kit is test flow dependent number.
2. λ_1/λ_2 (main/side wavelength in nm), alternative wavelength provided in brackets (λ)
3. Standard solution for method calibration, concentrations are Lot dependent
4. Arena kits only
5. Kit contains a standard solution for calibration
6. Method available for the Gallery Plus Beermaster with BCM analyzer only
7. Separate low range application available
8. D-Glucose result is needed for Sucrose and Lactose calculation from assayed Glucose
9. Ammonia result is needed for Urea calculation from assayed Ammonia

NIST traceable standards for ECM measurements

Parameter	Code	Product name	Kit size
pH	984330	ECM pH 2 Standard	2 x 60 mL
	984331	ECM pH 4 Standard	2 x 60 mL
	984332	ECM pH 7 Standard	2 x 60 mL
	984333	ECM pH 10 Standard	2 x 60 mL
	984334	ECM pH 12 Standard	2 x 60 mL
Conductivity (mS/cm)	984339	ECM Conductivity 0.08 Standard	2 x 60 mL
	984336	ECM Conductivity 1.4 Standard	2 x 60 mL
	984337	ECM Conductivity 13 Standard	2 x 60 mL
	984338	ECM Conductivity 112 Standard	2 x 60 mL

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