HACH LABORATORY QUICK GUIDE FOR FOOD APPLICATIONS

From process monitoring to quality control to wastewater, Hach® has the right tool for your challenging or routine applications. The comprehensive selection of Hach chemistries, spectrophotometers, electrochemistry meters and probes, and benchtop analysers provides the broadest range of analyses in the industry.

DR3900 Spectrophotometer and Chemistries

DR-Series Spectrophotometers and Hach chemistries are built on over 7 decades of water quality innovation to provide the most accurate and reliable results. Hach's integrated instrument-chemistry techniques are the industry standard.

Titralab AT1000

The Titralab Analyser is a one touch automatic titrator. Application packages cover a range of common food manufacturing parameters including pH, alkalinity, conductivity, and hardness. The AT1000 makes titration an easy and reliable analysis for any user.

HQ440D Meter

Hach HQD meters and versatile assortment of Intellical probes bring simplicity and consistency to electrochemical measurements. From pH, to DO, to ORP, to ISE – Hach electrochemical products deliver the highest quality results in an exceptionally sturdy package.

TL23 Turbidimeter

Turbidity measurement has never been easier. The TL23 Turbidimeter is the standard for demanding industrial turbidity applications. With tungsten or LED light sources and proven optics, no other instruments deliver more reliable, accurate, and stable measurements.

AS950 Automatic Sampler

The portable AS950 Automatic Sampler makes sampling easy and reliable. The rugged design ensures minimal maintenance and maximum uptime. The AS950 is configurable for almost any sampling scheme: fixed or portable, single or multi-bottle, composite or discrete.

HACH®

Be Right™

Spectrophotometric Measurements

Parameter	Platform	Product Number	Range*
Chemical Oxygen Demand	DR-Series Spectrophotometer	LCI400/LCI500/ LCK014/114/314/514/ 614/714/914/1014/1414	0 - 60,000 mg/L O_2
Nitrate	DR-Series Spectrophotometer	LCK339/340	0.23 - 35 mg/L NO_3-N
Phosphate	DR-Series Spectrophotometer	LCK348/349/350/049	0.05 - 30,0 mg/L PO_4-P
Ammonium	DR-Series Spectrophotometer	LCK302/303/304/305	0.015 - 130 mg/L NH_4-N
Total Nitrogen	DR-Series Spectrophotometer	LCK138/238/338	1 - 100 mg/L TN_b
Nitrite	DR-Series Spectrophotometer	LCK341/342	0.015 - 6,0 mg/L NO_2-N
Chloride	DR-Series Spectrophotometer	LCK311	1 - 1,000 mg/L Cl
Organic Acids	DR-Series Spectrophotometer	LCK365	50 - 2,500 mg/L CH_3COOH
Chlorine	DR-Series Spectrophotometer	LCK310/410	0.05 - 2.0 mg/L Cl_2
Iron	DR-Series Spectrophotometer	LCK320/321/521	0.01 - 6.0 mg/L Fe
Sulphate	DR-Series Spectrophotometer	LCK153/353	40 - 900 mg/L SO_4
Anionic Surfactants	DR-Series Spectrophotometer	LCK332/432	0.1 - 4.0 mg/L
Cationic Surfactants	DR-Series Spectrophotometer	LCK331	0.2 - 2.0 mg/L
Nonionic Surfactants	DR-Series Spectrophotometer	LCK333/334/433	0.2 - 2,0000 mg/L TRITONx100
Total Organic Carbon	DR-Series Spectrophotometer	LCK385/386/387	3 - 3,000 mg/L C
Hardness	DR-Series Spectrophotometer	LCK327/427	0.02 - 20 °dH

**Ranges reflect multiple chemistries. See www.hach.com for details.*

Electrochemical Measurements

Parameter	Platform	Electrode	Range
pH	HQD-Series Meter	PHC201	0 - 14 pH
Conductivity	HQD-Series Meter	CDC401	0.01 - 20,0000 µS/cm
BOD	HQD-Series Meter	LBOD101	0.1 - 20.00 mg/L O_2
DO	HQD-Series Meter	LDO101	0.1 - 20.00 mg/L O_2
ORP	HQD-Series Meter	MTC101	±1,200 mV
Ammonia	HQD-Series Meter	ISENH3181	0.01 - 14,000 mg/L NH_3-N
Sodium	HQD-Series Meter	ISENA381	0.023 - 23,000 mg/L Na
Chloride	HQD-Series Meter	ISECL181	0.1 - 35,500 mg/L Cl

Analysers

Parameter	Platform	Method	Range
pH	AT1000	Potentiometric	0 - 14 pH
Alkalinity	AT1000	Potentiometric Titration	40 - 2,000 mg/L $CaCO_3$
Conductivity	AT1000	Potentiometric	0.01 - 200,000 µS/cm
Hardness (ISE)	AT1000	Potentiometric Titration	20 - 720 mg/L $CaCO_3$
Moisture (Karl Fischer)	AT1000	Volumetric Titration	0 - 100% H_2O
Chloride	AT1000	Potentiometric Titration	5 - 400 mg/L Cl
Acidity	AT1000	Potentiometric Titration	2 - 24.3 mg/L $C_6H_8O_7$
Chlorine (Total)	AT1000	Amperometric Titration	0.003 - 5 mg/L Cl_2
Salt Content	AT1000	Potentiometric Titration	0.1 - 5% NaCl
Turbidity	TL23 Nephelometer	Nephelometric	0.01 - 10,000 NTU
Total Organic Carbon	QBD1200 Analyser	UV/Persulfate	0.4 - 100 mg/L TOC

Microbiological Measurements

Parameter	Platform	Method	Range
Yeast and Mold	Paddle Test	DOC316.53.01223	10^2 - 10^6 CFU
Total Aerobic Bacteria	Paddle Test	DOC316.53.01223	10^2 - 10^7 CFU

DOC062.52.20231.Apr16