

# WATER QUALITY Testing Products



# The Next Revolution in Water Analysis is Here!

Welcome to our General Products Catalog!

For almost 100 years we have kept alive my grandfather's passion, to innovate using new technologies to achieve greater accuracy, speed, and repeatable results for field and lab water analysis...to make your job simpler and more productive.

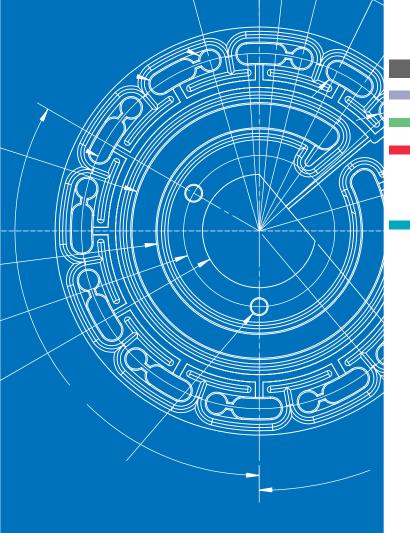
Perhaps there is no better example of this continuous innovation than our new WaterLink Spin Touch Colorimeter and pre-loaded reagent Spin Disks. This incredible new system uses Centrifugal Fluidics Photometry to accurately measure up to 10 parameters of water in 60 seconds with a single injection of a water sample. WaterLink Spin celebrated its 5-year anniversary earlier in 2017, and did so with the launch of its latest version...the portable, touch-screen Spin Touch. The Spin Touch and Disks are not only ideal for Pool and Spa testing, but now available for Drinking Water testing. We offer a variety of single-use and multi-use reagent disks testing almost 20 parameters, with more to come for new applications."

Our own software development team is enhancing your experience and capabilities with iOS and Android apps and cloud-based software like our WaterLink Connect and DataMate Web products. Test results are now captured and recommendations for action are provided instantly on mobile phones. These results can be literally viewed from anywhere in the world. From our Insta-Link smart phone test strip scanning products to our Bluetooth-enabled Spin and Smart Colorimeters, we are connecting your testing with the latest smart phone and web advantages.

We take tech support and customer service very seriously—it's what sets us apart. If you ever need either of these services, make sure you reach out, that's why we're here. I encourage you to call our Customer Service staff for quidance on product selection or Technical Support for assistance with any questions regarding purchased LaMotte products. If for any reason you are not satisfied with our products or service, you may return the product within 30 days for a full refund; please call for return authorization.

Please know that when you buy analysis products from us, you purchase solutions to your





# Since 1919

Helping people solve analytical challenges by providing innovative solutions through knowledgeable technical guidance, prompt service, and quality products designed for the analysis of water and soil.

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LaMotte Company manufactures its products at its 65,000 square foot facility in Chestertown, Maryland, near

Washington, DC on the east coast of the United States.

Over 12 years into our **Lean Manufacturing** journey, LaMotte's chemists, engineers, and technicians continue to optimize a wide variety of processes to achieve maximum quality and efficiency.

We offer a wide range of test methods and tools for the analyst, from multi-factor test strips, foil-packaged unit dose tablets, unit dose powder vials, and liquid reagents to sonic-welded color compara-

tors, multi-parameter test kits, and electronic instruments. LaMotte controls the manufacturing of all aspects to ensure the highest quality.

We believe strongly in having a **team of technical** 

experts available by phone and email for customer support. The Research and Development team works to constantly improve and create new test methods. Our in-house graphic design department provides extensive services that are especially valuable for the many custom designed products that LaMotte welcomes.

**ELnMotte** 

All of these varied capabilities enable

LaMotte to excel at helping people

solve their analytical challenges.





# **Custom Test Kit Services**

If your needs go beyond our standard product line, then our Custom Test Kit Services Department can design a custom kit to meet your needs.

WE CAN design a kit that combines any grouping of parameters you need.

WE CAN develop new test methods for new proprietary compounds or for control of specialized treatment programs

WE CAN alter existing graphics and packaging or design something new for private labeling purposes



#### How The Custom Test Kit Service Works

- 1. Contact our Customer Service or International Sales departments by phone, fax, or email. Tell us how you plan to use the product, the level of accuracy and range you need, how many kits, and any limitations such as size, weight, cost, or skill level of the end user (i.e. student, consumer, technician).
- 2. We will prepare a quote for you. Based on the information you provide, we will suggest one of our non-catalog test kits or develop a kit to suit your needs.
- **3.** Once you order, we immediately begin the development process, subject to final approval before beginning production.









# International Sales Worldwide Distributor Network

#### Available online at www.lamotte.com:

- Entire Product Listing with Full Descriptions
- Printable Test Instructions
- Printable SDSs
- Printable Reagents Certificates of Analysis

For Pricing and To Order, contact a distributor near you.

To locate a LaMotte distributor, visit www.lamotte.com and select "INTERNATIONAL". For more information email us at **intl@lamotte.com**.



## Colorimetric





#### Colorimetric

#### There are two basic types of colorimetric tests:

- 1. Tests which determine the concentration of a substance are based on Beer's Law. Simply stated, this says that the higher the concentration of a substance, the darker the color developed in the test, so more light is absorbed by the sample.
- 2. pH tests use an indicator which changes color with changes in the concentration of hydrogen ions, or the acidity of the solution.

## Octa-Slide 2 Comparator

The Octa-Slide 2 replaces the Octet and Octa-Slide comparators. All 8 color standards can be viewed at once against a precision matched color bar top-loaded next to the sample tube. This comparator system can be used with existing reagent system but is not compatible with color bars from the original Octa-Slide.





#### **Test Strips**

Test strips are either dipped or swirled in test solutions. The resulting color reaction is compared to a color chart provided.





#### Color Chart Comparator

Color charts are laminated color standards. The reacted sample is held against the panel and compared to the color standards.

#### **Electronic Methods**

Electronic colorimeters measure the amount of light which travels through the reacted sample, and convert the measurement to a reading as ppm, absorbance or %T. In addition to colorimeters, LaMotte offers instruments to test pH, TDS/conductivity, dissolved oxygen, and turbidity.



#### **Titrimetric**

Titrimetric tests can be used to determine the concentration of a substance in a sample solution. After the sample is treated with an indicator, a standard titrant is added until a color change indicates a completed reaction. LaMotte offers four separate types of titration methods, allowing a choice of precision and convenience.

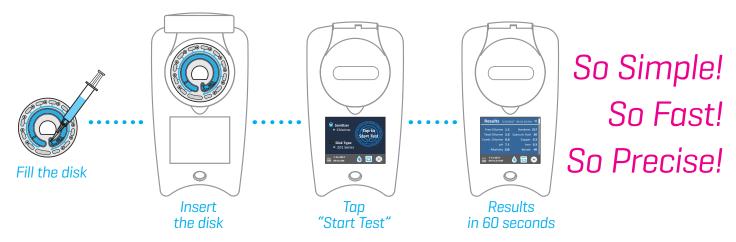


# WaterLink® Spin Touch™ DW



The innovative WaterLink® Spin Touch™ DW photometer does all your drinking water testing for you. Each sealed reagent disk contains the precise amount of reagent needed to run a complete series of tests. Just fill one unique Spin reagent disk with less than 3 mL of water and all your vital tests are done automatically—in just 60 seconds!

It's the most advanced system for precise use of wet chemistry methods ever produced. Now analysts can achieve precision without time consuming test and clean-up procedures. This ground-breaking analysis system is so simple anyone can use it! No vials to fill, no prep time, no quessing!



# WaterLink® Spin Touch™ DW

#### Reliable Results

- Virtually eliminates User-Error
- Pre-Measured Reagents
- Exact Reaction Times and Auto-Blanking
- Meter Calibration Check System
- New 6-Wavelength Photometer

#### Super Fast & Simple

- Fill Disk and Insert > Select "Start Test" > Read Results
- Results in 60 seconds

#### **Auto-Record Keeping**

Stores Test Dates, Times, Results

#### Stand-Alone

- No Computer, Smartphone, or Tablet Needed
- Touchscreen Operation
- Communicate through Bluetooth® or USB
- Software Available 2017

Bluetooth® is a registered trademark of Bluetooth® SIG, Inc.

#### Rugged and Portable

- Innovative Water-Resistant Housing
- Internal, Rechargeable Batteries
- Optional Heavy-Duty, Waterproof
- Carrying Case with Foam Inserts

# WaterLink® Spin Touch™ DW Code 3585

Includes: Photometer, Instruction Manual, Quick-Start Guide, 3 Syringes, Meter Check Disk, Disk Cover, Sample Bottle, USB Cord with USB Wall Adapter, Carrying Case (Disks sold separately)

Instrument Type:	Centrifugal Fluidics Photometer	
6 Wavelengths:	390 nm, 428 nm, 470 nm, 525 nm, 568 nm, 635 nm	
Display:	Color Capacitive Touchscreen, 3.5", 320 X 240 pixel resolution	
Batteries:	Lithium Ion, Rechargeable (Full Charge in 6 hours), 100-150 tests per charge	
Communication:	Bluetooth, USB-C	
Calibration:	Factory Set, Field Calibration via Internet Connection	
Data Storage:	Last 250 Test Results with Date and Time	
Water Resistance:	Rubber Over-molded Base, Rubber USB Port Plug, Gasketed Display and Hinge	
Size & Weight:	8.5 L x 4.9 W x 4.1 H inches, 1.74 lb 22.6 L x 12.7 W x 11.4 H cm, 0.79 kg	
Operation:	Single On/Off/Reset Button with Indicator Light	
Firmware:	Internet Updateable (New Tests, New Test Calibrations, etc.)	
Printer:	Optional Bluetooth Printer (Code 5-0066); 384 dots per line at 8 dots/mm resolution	

Drinking Water Series DW11		
Code 4336-H	50 pack	
Free Chlorine	0-15 ppm	
Total Chlorine	0-15 ppm	
Combined Chlorine	0-15 ppm	
рН	4.5-9.5 pH	
Total Hardness	0-70 gpg	
Total Iron	0-6 ppm	
Ferric Iron	0-6 ppm Fe <sup>3+</sup>	
Ferrous Iron	0-6 ppm Fe <sup>2+</sup>	
Total Alkalinity	0-250 ppm	
lotal Alkalinity	U-250 ppm	



# **SMART3** Colorimeter



The user-friendly SMART3 Colorimeter is the ideal direct reading colorimeter for complete on-site water analyses.

All pre-programmed tests can be run on these compact instruments and each test features automatic wavelength selection. The entire multi-LED optical system is embedded in the light chamber and optimized for LaMotte test reagent systems. The analyst can simply select the test and put in the sample with reagent. The microprocessor, which selects the wavelength, also allows the user to load up to 25 tests for analyzing custom reagent systems. LaMotte stands behind every system we provide.

These portable colorimeters have the user in mind with these advanced features:

- IP67 Waterproof
- Simple, menu-driven operation
- Alphabetical test selection
- User-selected test sequences
- Self diagnostics with error/warning messages
- Instant readiness without "count down" delays; achieved by active stabilization of lamp intensity
- Auto-blank: Auto-off
- European CE mark

The user may select any of the wavelengths in each meter to determine the absorbance or %T of a sample at the desired wavelength.

#### Additional advancements include:

- Superior narrow band-width interference filters
- New LCD display for improved readability
- USB interface
- Lithium ion rechargeable battery, USB computer adapter is included

#### As well as the incorporated features:

- All wavelength filters 428, 525, 568, 635 nm (SMART3) only)
- USB port
- and more...

NOTE: SMART 3 Turbidity is not the same as EPA 180.1 Turbidity

SMART Colorimeter® is a registered trademark of LaMotte Company.

# **SMART3 Colorimeter**



See pages 19-20 for complete reagent system listing.

Range:	0-125%T	
Resolution:	1% FS	
Accuracy:	2% FS	
CE Mark:	Yes	
Light Source:	LED/Filter setup; 428nm, 525nm, 568nm, 638nm	
Detector:	Photodiode	
Display:	160x100 Backlight LCD, 20x4 line graphics display	
Sample Cell:	25 mm round cell, 10 mm square cuvette, 16 mm COD tubes	
Datalogging:	: Up to 500 data points, USB transfer, time and date stamped	
Keypad:	ypad: 6-button mechanical	
Calibration:	Factory set - user adjustable	
Power:	USB computer/power charger or Lithium Ion rechargeable battery, 3.7V, 2.5" $\times$ 0.75", 1.7 oz.	
Dimensions:	19.05 x 8.84 x 6.35 cm; 7.5 x 3.5 x 2.5 inches	
Weight:	15 ounces	
Bandwidth:	10 mm typical	

#### SMART3 · Code 1910

Comes with 6 sample tubes, power charger and manual

#### Accessories/Replacement Items:

/ lococool loc/ lopiacol	TIOTIC ICOTTIO
Smartcheck Standards	Code 4148
Replacement Sample Chamber Cup	Code 3-0038
COD/UDV adapter	Code 1724
6 sample tubes	Code 0290-6
USB Cable	Code 1720
USB Power Plug	Code 1721
Car Charger	Code 5-0132
Small Case	Code 1910-GCS150
Large Case	Code 1910-GCS440
Bluetooth Printer	Code 5-0066



Order Code 1974-I

Waterproof to IP67
Lithium rechargeable batteries
USB port
7 languages
Backlit display

FPA and ISO versions

**New RATIOMETRIC design** in one of the most innovative, WATERPROOF, handheld meters available on the market!

The multi-detector optical configuration assures long-term stability and minimizes stray light and color interference. The new ratiometric design allows for easy and accurate testing. The nephelometric mode measures 0-40 NTU/FNU, ratiometric mode 40-1000 NTRU/FNRU and 1000-2000 AU. Now pinpoint the range of interest with better, more reliable results. Ideally suited for low-level drinking water applications, mid-range industrial applications, and high-range environmental applications.

- Seven user selected languages English, Spanish, French, Japanese, Chinese, Italian, and Portuguese
- Advanced calibration algorithms
- Easy menu driven operation and large LCD display
- 500 point data log; stored results can be viewed directly on instrument

**2020t version** meets **US EPA design** criteria as specified by EPA 180.1, Rev. 2.0 (1993) and Standard Methods 2130 B-2001.

**2020i version** meets design criteria for quantitative methods of turbidity using optical turbidimeters as specified by **ISO 7027. Best for colored or extremely turbid samples.** 

Kits are supplied with 0, 1, and 10 NTU standard, sample bottle, four sample tubes, USB cable and wall adapter.

#### To Order:

2020t Kit · Portable turbidity meter complies with by EPA 180.1, Rev. 2.0 (1993) and Standard Methods 2130 B-2001

Order Code 1974-T

2020i Kit · Portable turbidity meter complies with ISO 7027 Standard Order Code 1974-I

# 2020t & 2020i Portable Turbidity Meters

#### **Turbidity Specifications:**

Mode	Ratiometric	Nephelometric	Attenuation
Unit of Measure 2020t	NTRU, NTU, ASBC, EBC	NTU, ASBC, EBC	AU, NTU, ASBC, EBC
Unit of Measure <b>2020</b> i	FNRU, NTU, ASBC, EBC	FNU, NTU, ASBC, EBC	FAU, NTU, ASBC, EBC
Range	0-1,000 NTRU/FNRU 0-17,500 ASBC 0-250 EBC	0-100 NTU/FNU 0-1,750 ASBC 0-25 EBC	0-2,000 AU/FAU 0-70,000 ASBC, 0-1,000 EBC
Resolution	0-10.99 NTRU/FNRU: 0.01 11.0-109.9 NTRU/FNRU: 0.1 110-1000 NTRU/FNRU: 1	0-10.99 NTU/FNU: 0.01 11.0-100.0 NTU/FNU: 0.1	0-2000 AU/FAU: 1
Accuracy	0-2.5 NTRU/FNRU: ±0.05 2.5-100 NTRU/FNRU: ±2% 100-1000 NTRU/FNRU: ±3%	0-2.5 NTU/FNU: ±0.05 2.5-100 NTU/FNU: ±2%	0-2000 AU/FAU: ±10 AU/FAU or 6%, whichever is greater
<b>Detection Limit</b>	0.05 NTRU/FNRU	0.05 NTU/FNU	10 AU/FAU
Reproducibility	0.02 NTRU/FNRU or 1%	0.02 NTU/FNU or 1%	1%
Range Selection	Automatic		
Light Source	2020t: Tungsten lamp 2300 °K ±50 °K 2020i: IR LED 860 nm ±10 nm, spectral bandwidth with 50 nm		
Detector	2020t: Photodiode, centered at 90° and 180°, maximum peak 400-600 nm 2020t/i: Photodiode, centered at 90° and 180°		

#### Meter Features:

Signal Averaging	Disabled, 2, 5, 10	
Power	USB computer cable, wall adapter or Lithium ion rechargeable battery, 3.7V, 2.5" $\times$ .75", 1.7 oz	
Data Logging 500 points		
Auto Shut-Off Disabled, 5, 10, 30 seconds		
Languages English, French, Spanish, Japanese, Italian, Portuguese, Chinese		
Response Time <2 Seconds		
Size	7.5 x 3.5 x 2.5 inches; 19.05 x 8.84 x 6.35 cm	
Weight	13 ounces	
<b>Display</b> 6-line LCD with backlit display		

#### Accessories:

- 0 NTU Standard (EPA and ISO), 60 mL Code 1440
- 1 NTU Standard (EPA), 60 mL Code 1441
- 1 FNU Standard (ISO), 60 mL Code 1446
- 10 NTU Standard (EPA), 60 mL Code 1442
- 10 NTU Standard (ISO), 60 mL Code 1447
- 100 NTU Standard (EPA), 60 mL Code 1443
- 100 FNU Standard (ISO), 60 mL Code 1448
- Formazin Standard Solution, 4000 NTU, 60 mL Code 6195-H
- USB Cable, Code 1720
- Wall Adapter, Code 1721
- Six-pack of vials, Code 0290-6
- Car Charger, Code 5-0132



Kits are supplied with 0, 1, and 10 NTU/FNU standards, sample bottle, six sample tubes, USB cable and wall adapter—all in a sturdy waterproof case.

# TC-3000t/i Portable Turbidity, Chlorine & Color



The TC3000t is a portable turbidity, chlorine and color meter with wide range and high accuracy. **ISO unit also available in the TC3000i.** The meter meets EPA 180.1, Rev. 2.0 (1993) and Standard Methods 2130 B-2001 for turbidity and Standards Methods 4500-Cl G for chlorine. The turbidity range is 0-2,000 NTU with a MDL of 0.05 NTU. The free and total chlorine range is 0-4 ppm with a MDL of 0.03 ppm. The meter can store 500 data points which can be downloaded to a computer, allows 6 different languages, and runs on rechargeable batteries or a USB computer/wall adapter.

- Ratiometric design makes it Ideally suited for low-level drinking water applications, midrange industrial applications, and high-range environmental applications
- Special focusing optics
- Supports 6 languages: English, French, Spanish, Chinese, Japanese, Portuguese and Italian
- Data logging up to 500 points with a date and time stamp stored tests can be viewed on the meter or downloaded to a PC
- Easy to read graphic LCD display
- Easy menu-driven operation

#### **Meter Features**

Waterproof	IP67
Signal Average	Disabled, 2, 5, 10
Power	USB computer cable, wall adapter or Lithium ion rechargeable battery, 3.7V, 2.5" x 0.75", 1.7 oz
Data Logging	500 points
Auto Shut-Off	Disabled, 5, 10, 30
Languages	English, French, Spanish, Japanese, Italian, Portuguese, Chinese
Response Time	<2 Seconds
Dimensions	7.5 x 3.5 x 2.5 inches; 19.05 x 8.84 x 6.35 cm

# TC-3000t/i, Portable Turbidity, Chlorine & Color

#### Kits & Accessories

TC-3000t US EPA Compliant, Order Code 1976-t, Turbidity [EPA 180.1, Rev. 2.0 (1993) and Standard Methods 2130 B-2001], Chlorine [Standard Methods 4500-Cl G], Color [based on Standard Methods 2120 C]

TC-3000i ISO Compliant, Order Code 1976-i, Turbidity (ISO 7027), Chlorine (Standard Methods 4500-Cl G), Color (based on Standard Methods 2120 C)

#### Accessories:

- 0 NTU Standard (EPA and ISO), 60 mL Code 1440
- 1 NTU Standard (EPA), 60 mL Code 1441
- 1 FNU Standard (ISO), 60 mL Code 1446
- 10 NTU Standard (EPA), 60 mL Code 1442
- 10 NTU Standard (ISO), 60 mL Code 1447
- 100 NTU Standard (EPA), 60 mL Code 1443
- 100 FNU Standard (ISO), 60 mL Code 1448
- Formazin Standard Solution, 4000 NTU, 60 mL Code 6195-H
- USB Cable, Code 1720
- Wall Adapter, Code 1721
- Six-pack of vials, Code 0290-6
- Car Charger, Code 5-0132

## **Turbidity**

- Meets design criteria for quantitative methods of turbidity using optical turbidimeters as specified by EPA 180.1, Rev. 2.0 (1993) and Standard Methods 2130 B-2001
- Supplied with formazin verified styrene divinylbenzene bead suspensions (AMCO) for easy and accurate field calibration
- User selected signal averaging (disabled, 2, 5 or 10 measurements)
- Blanking with turbidity-free water allows a zero point calibration for increased accuracy at very low turbidity levels

Mode	Ratiometric	Nephelometric	Attenuation
Unit of Measure TC3000t	NTRU, ASBC, EBC	NTU, ASBC, EBC	AU, ASBC, EBC
Unit of Measure TC3000i	FNRU, ASBC, EBC	FNU, ASBC, EBC	FAU, ASBC, EBC
Range	0-1,000 NTRU/FNRU 0-17,500 ASBC 0-250 EBC	0-100 NTU/FNU 0-1,750 ASBC 0-25 EBC	0-2,000 AU/FAU 0-70,000 ASBC, 0-1,000 EBC
Resolution	0-10.99 NTRU/FNRU: 0.01 11.0-109.9 NTRU/FNRU: 0.1 110-1000 NTRU/FNRU: 1	0-10.99 NTU/FNU: 0.01 11.0-100.0 NTU/FNU: 0.1	0-2000 AU/ FAU: 1
Accuracy	0-2.5 NTRU/FNRU: ±0.05 2.5-100 NTRU/FNRU: ±2% 100-1000 NTRU/FNRU: ±3%	0-2.5 NTU/FNU: ±0.05 2.5-100 NTU/FNU: ±2%	0-2000 AU/FAU: ±10 AU/FAU or 6%, whichever is greater
Detection Limit	0.05 NTRU/FNRU	0.05 NTU/FNU	10 AU/FAU
Range Selection	Automatic		
Calibration Options:	Nephelometric, Ratiometric, Attenuation		
Reproducibility	0.02 NTRU/FNRU or 1%	0.02 NTU/FNU or 1%	1%
Light Source	TC3000t complies with EPA 180.1 and Standard Methods 2130 B; TC3000i complies with ISO 7027		

#### **Chlorine**

- Exceeds design specifications for Standard Methods 4500-Cl G
- Liquid and tablet DPD calibrations for Free and Total Chlorine measurement
- Wide-range accomplished with same cell and reagent dosage
- Low level detection.
- User selected units ppm or mg/L

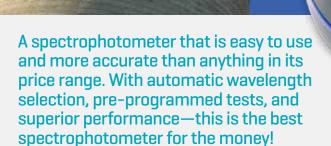
Range	0-4 ppm, Free and Total Chlorine*	
Resolution	0.00-5.00 ppm Range: 0.01 ppm; 5.0-10.0 ppm Range: 0.1 ppm	
Accuracy	Tablet: 0-1.0 ppm Range: ±0.03 ppm 1.0-3.0 ppm Range: ±0.06 ppm 3.0-4.0 ppm Range: ±0.3 ppm Liquid: 0-0.5 ppm Range: ±0.03 ppm 0.6-3.0 ppm Range: ±0.06 ppm 3.0-4.0 ppm Range: ±0.4 ppm	
Detection Limit	0.03 ppm	
Response Time	<5 Seconds	
<b>Light Source</b> 525 nm LED, complies with Standard Methods 450		
*Above 4.0 ppm an "over range" alert displays prior to showing test results. A 1:3 dilution is recommended for reliable results above 4.0 ppm.		

#### Color

- Uses Platinum-Cobalt method from Standard Methods 110.2
- Wavelength 390 nm

Range	0-500 cu
Detection Limit	20 cu
Accuracy	±15 cu
Light Source	390 nm LED

# SMART® Spectro 2 Spectrophotometer



## Menu Driven Display

Tests and functions are selected from scrolling menus for ultimate simplicity. Results are displayed as %T, absorbance, and concentration.

# Pre-Programmed Tests, User Tests & Automatic Wavelength Selection

Over 80 pre-programmed tests. Up to 25 calibrations for additional tests can be entered into the memory. The user can also customize sequences for frequently run tests. The meter automatically moves the grating to the required wavelength.

#### To Order:

#### Order Code 2000-02 (120V/60Hz and 220V/50Hz)

Includes 6 sample cells (25mm round), 2 sample cell holders (25mm round and COD vials, 10mm cuvettes), power supply, battery charger, and diagrammed manual.

#### Options:

- Carrying Case, Code 2000-CS
- Battery Pack with holder (rechargeable), Code 2000-BP
- Replacement sample cells (round), Code 0290-6
- Cuvettes, Code 29653-10



SMART Spectro?

See pages 19-20 for complete reagent system listing.



# SMART® Spectro 2 Spectrophotometer

Wavelength Range:	350-1000 nm
Wavelength Accuracy:	±2 nm
Wavelength Resolution:	1 nm
Wavelength Bandwidth:	5 nm (max)
Photometric Range:	0-125%T, -0.1-2.5A
Photometric Accuracy:	±0.005A
Photometric Noise:	<0.001A at 0A; <0.002A at 2A
Photometric Drift:	±0.002A/hr @500 nm
Photometric Stray Light:	<0.5 %T
Dispersive Device:	Grating - based system
Optical Mount:	Modified Ebert
Grating:	1200 grooves/mm ruled grating
Light Source:	Quartz halogen
Bulb Life:	1000 hours minimum

Sample Chambers:	25 mm round cell, 10 mm square cuvette UDV, COD vial
Detector:	Silicon photodiode
Temperature Range:	0-40°C
Modes:	Conc., %T, ABS
Pre-Programmed Tests:	Yes
Wavelength Selection:	Automatic
User Tests:	Yes, up to 25 can be entered and edited
Datalogging:	Yes, RS-232, datalogs 500 tests
Diagnostics:	Yes
Power:	110/220 volt adapter or battery pack (rechargeable)
Weight:	4.65 kgs (10.3 lbs)
Size (WxDxH:)	35 cm x 28 cm x 17 cm



## Digestion Tubes for Total Nitrogen and Total Phosphorus

LaMotte offers low and high Total Phosphorus and a Total Nitrogen test that are reacted in a heater block and are then tested using a colorimeter or spectrophotometer. **See page 85 for Heater Block**.

Code	Description	Range	# of Tests
4024-01	Low Total Phosphorus	0-3.5 mg/L	25
4025-01	High Total Phosphorus	0-100 mg/L	25
4026-01	Total Nitrogen	0-25 mg/L	25



## Multi-Range COD Reagent Systems

LaMotte-manufactured Chemical Oxygen Demand reagent systems used with our SMART3 Colorimeter or SMART Spectro 2 Spectrophotometer are an easy and precise way to measure critical COD levels. Measure low, medium or high levels of COD using your choice of mercury [US EPA approved method] or non-mercury reagent systems. Each package contains 25 ready to use vials. All kits ship as R1. **See page 85 for Heater Block**.

#### Mercury based systems

Code	Range
0075-SC	0-150 ppm (EPA approved)
0076-SC	0-1500 ppm (EPA approved)
0077-SC	0-15,000 ppm

#### Mercury-free systems

Code	Range
0072-SC	0-150 ppm
0073-SC	0-1500 ppm
0074-SC	0-15,000 ppm

**ALUMINUM AMMONIA CADMIUM CHROMIUM** 

COBALT **COD LR COD HR** 

LEAD

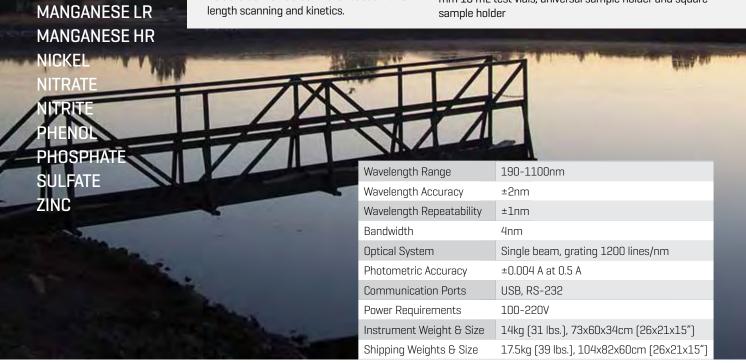
# **UV/VIS Spectrophotometer**



The UV-Vis Spectrophotometer is an expandable, easy-to-use instrument that provides maximum performance in a compact, benchtop package. The instrument includes a high precision optical bench, full programming capabilities, customizable standard curves, and over 80 preprogrammed tests. Available options include a variety of sample holders as well as software-based wave-

#### Order Code 7-2000-UV

- Programmable wide range spectrophotometer can accept up to 200 user curves in memory
- Pre-programmed to analyze selected tests on a directreading digital display
- Advanced key pad with 22 buttons simplifies data entry
- Includes one 10 mm quartz glass cuvette, six round 25 mm 10 mL test vials, universal sample holder and square sample holder



# **Instrument Reagent Listing**

New tests are being developed for the SMART 3 Colorimeter. Please contact our Technical Service Department for information regarding additions.

Test Factor	Test Method (# of reagents)	SMART 3 Range†	Spectro / UV-VIS Range†	# Tests	Code	Ship
Alkalinity UDV	Unit Dose Vial [1]	10-250	15-200	100	4318-J	NH
Aluminum	Eriochrome Cyanine R (4)	0.01-0.30	0.01-0.30	50	3641-01-SC	NH
Ammonia Nitrogen LR, Fresh	Salicylate [3]	0.05-1.00	0.02-1.00	25	3659-01-SC	R2
Ammonia Nitrogen LR, Salt	Salicylate [3]	0.10-1.00	0.10-1.00	25	3659-01-SC	R2
Ammonia Nitrogen HR	Nesslerization (2)	0.05-4.00	0.05-4.00	50	3642-SC	R1
Barium	Barium Chloride (1)	5-200	_	50	3638-SC	NH
Benzotriazole**	UV Photolysis (3)	0.5-30.0	_	50	4047-01	R1
Biguanide	Colorimetric (1)	2-70	5-70	50	4044	NH
Borate UDV	Unit Dose Vial (1)	5-80	_	100	4322-J	NH
Boron	Azomethine-H (2)	0.05-0.80	0.05-0.80	50	4868-01	NH
Bromine, Liquid DPD	DPD Liquids (3)	0.10-9.00	_	144	4859	R2
Bromine	DPD Tablets (2)	0.10-9.00	0.04-9.00	100	3643-SC	NH
Bromine UDV	Unit Dose Vial DPD (1)	0.1-22.0	0.3-22.0	100	4311-J	NH
Cadmium	PAN (4)	0.02-1.00	0.02-1.00	50	4017-01	R1
Carbohydrazide	Iron Reduction (3)	0.04-0.900	0.005-0.900	100	4857	R1
Chloride TesTab	Argentometric (1)	0.4-30.0	0.5-30.0	50	3693-SC	NH
Chlorine, Liquid DPD	DPD Liquids (3)	0.03-4.00	0.30-4.00	144	4859	R1
Chlorine, Tablet DPD	DPD Tablets (3)	0.03-4.00	0.02-4.00	100	3643-SC	NH
Chlorine, Free, UDV	Unit Dose Vial [1]	0.10-10.00	0.10-10.00	100	4311-J	NH
Chlorine, Total, UDV	Unit Dose Vial [1]	0.10-10.00	0.1-10.0	100	4312-J	NH
Chlorine Dioxide	DPD Tablet/Glycine [2]	0.06-8.00	0.04-7.00	50	3644-SC	NH
Chromium Hexavalent	Diphenylcarbohydrazide [1]	0.01-1.00	0.01-1.00	50	3645-SC	НА
Chromium (Total, Hex & Trivalent)	Diphenylcarbohydrazide [5]	0.01-1.00	0.03-1.00	50	3698-SC	HF
Cobalt	PAN [3]	0.04-2.00	0.02-2.00	50	4851-01	LQ
COD LR w/ Mercury*	Digestion [1]	5-150 mg/L	5-150 mg/L	25	0075-SC	R1
COD LR w/o Mercury*	Digestion [1]	5-150 mg/L	5-150 mg/L	25	0072-SC	R1
COD SR w/ Mercury*	Digestion [1]	50-1,500 mg/L	50-1,500 mg/L	25	0076-SC	R1
COD SR w/o Mercury*	Digestion (1)	50-1,500 mg/L	500-1,500 mg/L	25	0073-SC	R1
COD HR w/ Mercury*	Digestion (1)	500-15,000 mg/L	500-15,000 mg/L	25	0077-SC	R1
COD HR w/o Mercury*	Digestion (1)	500-15,000 mg/L	50-15,000 mg/L	25	0074-SC	R1
Color	Platinum Cobalt [0]	20-1,000	15-1,000	∞	NA	NH
Copper, BCA	Bicinchoninic Acid (1)	0.04-3.50	0.05-3.50	50	3640-SC	NH
Copper, Cuprizone	Cuprizone [2]	0.03-2.00	0.01-2.00	50	4023	R1
Copper, DDC	Diethyldithiocarbamate [1]	0.10-6.00	0.05-6.00	50	3646-SC	NH
Copper UDV	Unit Dose Vial, Bicinchoninic Acid (1)	0.1-4.0	0.20-4.00	100	4314-J	NH
Cyanide	Pyridine-Barbituric Acid (5)	0.03-0.35	0.05-0.50	50	3660-01-SC	R1
Cyanuric Acid	Melamine [1]	10-200	16-200	100	3661-01-SC	R1
Cyanuric Acid UDV	Unit Dose Vial, Melamine (1)	10-150	5-150	100	4313-J	NH
DEHA	Iron Reduction [3]	0.01-0.70	0.005-0.700	100	4857	NH
Dissolved Oxygen (DO)	Winkler Colorimetric (3)	0.6-11.0	0.3-12.0	100	3688-SC	R1
Erythorbic Acid	Iron Reduction [3]	0.02-3.00	0.02-3.00	100	4857	R1
Fluoride	SPADNS [2]	0.1-2.0	0.1-2.0	50	3647-02-SC	R1
Hardness (Total) UDV	UDV (1)	10-500	10-500	100	4309-J	NH
Hydrazine	P-dimethylaminobenzaldehyde [2]	0.01-1.00	0.010-0.750	50	3656-01-SC	R2
	i announyianinobonzalaonyao [E]	0.01 1.00	J.010 0.730	30	2000 01 00	11/

<sup>†</sup>As ppm except as otherwise indicated \*Requires COD Adapter Code 5-0087 and Heater Block \*\*UV lamp 31041-1; UV lamp power source 31041-2; UV safety goggles 31041

Continue next page...

# **Instrument Reagent Listing**

New tests are being developed for the SMART 3 Colorimeter. Please contact our Technical Service Department for information regarding additions.

Test Factor	Test Method (# of reagents)	SMART 3 Range†	Spectro / UV-VIS Range†	# Tests	Code	Ship
Hydrogen Peroxide HR	DPD (2)	1-60	1-60	50	4045-01	NH
Hydrogen Peroxide Shock	DPD (2)	10-225	4-225	100	4045-01	NH
Hydroquinone	Iron Reduction (3)	0.01-2.00	0.01-1.80	100	4857	R1
lodine	DPD Tablets (2)	0.2-14.0	0.08-14.00	100	3643-SC	NH
Iron	Bipyridyl (2)	0.10-6.00	0.06-6.00	50	3648-SC	R1
Iron, Phenanthroline	1,10 Phenanthroline (2)	0.1-5.0	0.04-4.50	50	3668-SC	R1
Iron UDV	Unit Dose Vial, Bipyridyl (1)	0.1-10.0	0.07-10.00	100	4315-J	NH
Lead	PAR (5)	0.1-5.0	0.1-5.0	50	4031-01	
Manganese LR	PAN [3]	0.01-0.70	0.02-0.70	50	3658-01-SC	HF
Manganese HR	Periodate (2)	0.3-15.0	0.3-15.0	50	3669-SC	R1
Mercury	TMK [3]	0.01-1.50	0.02-1.50	50	4861-01	LQ
Methylethylketoxime	Iron Reduction (3)	0.01-3.00	0.02-3.00	100	4857	R1
Molybdenum HR	Thioglycolate (3)	0.6-50.0	0.2-15.0	50	3699-03-SC	R1
Nickel	Dimethylglyoxime (6)	0.15-8.00	0.06-8.00	50	3663-01-SC	LQ
Nitrate Nitrogen LR	Cadmium Reduction (2)	0.10-3.00	0.05-3.00	20	3649-SC	R1
Nitrate TesTabs	Zinc Reduction (1)	5-60	3-60	50	3689-SC	NH
Nitrate UDV	Unit Dose Vial, Zinc Reduction	2-80	_	100	4321-J	NH
Nitrite Nitrogen LR	Diazotization (2)	0.02-0.80	0.020-0.800	20	3650-SC	NH
Nitrogen, Total*	Chromotropic Acid/Digestion (6)	3-25 mg/L	2-25 mg/L	25	4026-01	R1
Oxygen Scavengers	Iron Reduction (3)	various	various	100	4857	R1
Ozone	DPD Liquid (4)	0.03-3.00	_	100	4881	R1
Ozone LR	Indigo Trisulfonate (3)	0.01-0.40	0.02-0.40	100	3651-SC	NH
Ozone HR	Indigo Trisulfonate (3)	0.05-2.50	0.05-1.50	20	3651-SC	NH
pH, CPR	Chlorophenol Red [3]	5.0-6.8 pH	5.0-7.0 pH	100	3700-01-SC	NH
pH, PR	Phenol Red (3)	6.6-8.4 pH	6.8-8.4 pH	100	3700-01-SC	NH
рН, ТВ	Thymol Blue (3)	8.0-9.5 pH	8.0-9.5 pH	100	3700-01-SC	NH
Phenol	Aminoantipyrine (3)	0.05-6.00	0.05-6.00	50	3652-01-SC	NH
Phosphate LR	Ascorbic Acid Reduction (2)	0.05-3.00	0.04-3.00	50	3653-SC	R2
Phosphate HR	Vanodomolybdophosphoric Acid (1)	0.5-70.0	1.0-70.0	50	3655-SC	R1
Phosphate, ppb	Ascorbic Acid/Digestion (2)	50-3000 ppb	_	50	3653-SC	R2
Phosphorus, Total - LR*	Ascorbic Acid/Digestion (5)	0.50-3.50 mg/L	0.07-3.50 mg/L	25	4024-01	R1
Phosphorus, Total - HR*	Molybdovanadate/Digestion (5)	5-100 mg/L	5.0-100.0 mg/L	25	4025-01	R1
Potassium	Tetraphenylboron (2)	0.8-10.0	0.5-10.0	100	3639-SC	R1
Silica LR	Heteropoly Blue (4)	0.05-4.00	0.03-2.50	100	3664-SC	R1
Silica HR	Silicomolybdate (3)	1-75	1-50	50	3687-SC	R1
Sulfate HR	Barium Chloride (1)	3-100	5-100	100	3665-SC	R1
Sulfide LR	Methylene Blue [3]	0.06-1.50	0.02-1.00	50	3654-02-SC	R1
Surfactants	Bromphenol Blue (3)	0.5-8.0	0.5-8.0	100	4876-01	LQ
Tannin	Tungsto-Molybdophosphoric Acid (3)	0.1-10.0	0.2-10.0	50	3666-01-SC	R1
Tolyltriazole**	UV Oxidation/Dichromate (3)	0.5-30.0	_	50	4047-01	R1
Turbidity	Absorptimetric (0)	3-400 FAU	2-400 FTU	∞	NA	NH
Zinc LR	Zincon [6]	0.05-3.00	0.03-3.00	50	3667-01-SC	LQ

<sup>†</sup> As ppm except as otherwise indicated \* Requires COD Adapter Code 5-0087 and Heater Block

Ship Codes: (NH) Non-Hazardous Material - No Fees · (R1) Small Qty. Hazardous Material - No Fees · (LQ, R2, R3) Hazardous Material - Air Fees Only · (HF) Hazardous Material - Air 6 Ground Fees

<sup>\*\*</sup> UV lamp 31041-1; UV lamp power source 31041-2; UV safety goggles 31041

# Model 1500 · Single Test Colorimeter Labs

→ Waterproof USB Capable Rechargeable

The 1500 Series of single test, direct reading colorimeters incorporates design advances that enhance reliability, improve accuracy, and simplify the calibration process, all in a portable, hand-held package.





Order Code 3240 (tablet) Order Code 3240-LI (liquid)

#### **Options:**

USB Cable (Order Code 1720) Wall Plug (Order Code 1721) Replacement Tubes (Order Code 0290-6)

- Field & Lab Use: USB cable and wall adapter included; car charger optional
- Rechargeable battery: No need to buy batteries again
- EPA Compliant: Uses proper wavelength and DPD test method to meet EPA design specifications for NPDWR and NPDES chlorine monitoring programs (EPA 330.5 and Standard Method 4500)

- 0-4 ppm Chlorine: No need to select a low or high range. The DC1500 covers the entire critical chlorine range of 0-4 ppm with an MDL of 0.03 ppm.
- A Great Value: Complete, economical package! The DC1500 Chlorine Colorimeter Kit includes tablets for 100 tests or liquid reagents for 140 tests, six sample vials, and a sturdy carrying case.
- IP67 Waterproof Design: Designed with excessive exposure to moisture in mind, the DC1500 colorimeter delivers trouble-free performance
- Bold, backlit display
- European CE Mark
- USB port

# Model 1500 · Single Test Colorimeter Labs

#### Features include:

- Large graphical liquid crystal display
- Simple, menu-driven operation
- Lithium ion rechargeable battery and computer/wall adapter
- IP67 Waterproof
- Backlit display
- Auto-off
- USB port
- European CE mark



# **AVAILABLE TESTS**

Test Factor	Code	Range (ppm)	Detection Limit	Test Method (# of reagents)	# of Tests	Ship Codes
Ammonia Nitrogen	3241	0-5.0	0.05	Nessler (2)	60	R1
Chlorine (Free & Total)	3240	0-4.0	0.05	DPD Tablets (2)	100	NH
Chlorine (Free & Total)	3240-LI	0-4.0	0.05	DPD Liquid (3)	140	R1
Chlorine Dioxide	3244	0-7.0	0.05	DPD with Glycine Solution (2)	100	NH
Copper	3245	0-6.0	0.03	Diethyldithiocarbamate (1)	100	NH
Fluoride	3243	0-2.0	0.1	Alizarin-Zirconyl (2)	100	LQ
Iron	3248	0-5.0	0.25	1,10 Phenanthroline (2)	100	R1
Molybdenum	3246	0-30	0.5	Thioglycolate (3)	50	R3
Ozone	3249	0-0.4	0.04	Indigo Blue (3)	100	NH
Phosphate	3242	0-3.0	0.07	Ascorbic Acid (2)	100	R2
Sulfate	3247	0-100	1.0	Barium Chloride (1)	100	R1

#### **ALSO AVAILABLE**

## Model 1500-UDV 568 nm **Absorbance Colorimeter**

For 10mm cuvettes Order Code 3250



Ship Codes: (NH) Non-Hazardous Material - No Fees · (R1) Small Qty. Hazardous Material - No Fees · (LQ, R2, R3) Hazardous Material - Air Fees Only · (HF) Hazardous Material - Air & Ground Fees \*(NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

# Model 1500 & 1500 UDV · Absorbance Colorimeters

## Replacement Reagents for 1500 Chlorine

#### Liquid Reagents

30 mL (1 oz.)	Code	Ship Code		
DPD 1A	P-6740-G	NH		
DPD 1B	P-6741-G	R2		
DPD 3	P-6743-G	NH		

60 mL (2 oz.)	Code	Ship Code
DPD 1A	P-6740-H	NH
DPD 1B	P-6741-H	R2
DPD 3	P-6743-H	NH

#### **Tablet Reagents**

Tablet	50	100	1000	Ship Code
Chlorine DPD #1 Instrument*	6903A-H	6903A-J	6903A-M	NH
Chlorine DPD #3 Instrument*	6197A-H	6197A-J	6197A-M	NH
Chlorine DPD #4 Instrument*	6906A-H	6906A-J	6906A-M	NH

<sup>\*</sup> Instrument DPD featuring new ultra-clear fast dissolving tablets.





## DPD Powder Pop® Dispenser

LaMotte now offers the Powder Pop Dispenser - a hand held, single-dose dispenser for 10 mL samples that delivers a precise pre-measured dose of DPD reagent directly to your sample. Each Powder Pop kit includes enough reagent for 400 tests.

#### To Order:

Free Chlorine Powder Pop Dispenser (Order Code 3-0032) Total Chlorine Powder Pop Dispenser (Order Code 3-0033)



#### Chlorine Standards for Model 1500 & SMART3

For use with the 1500 series and SMART3 chlorine colorimeters. Secondary standards provide a fast way to check calibration without the burden of making primary standards. Based on Standard Methods for the Examination of Water and Wastewater, the operator can calibrate a colorimeter using a permanganate primary standard or a chlorine primary standard. Once the meter is calibrated using the primary standard, the operator can insert secondary standards periodically to evaluate the calibration of the instrument.

- Secondary standard kit contains a blank and 3 standards for low, mid-range, and high chlorine
- Packaged in a small plastic case with Certificate of Analysis stating range of each standard.

# To Order:

DPD Chlorine Secondary Standards, Order Code 4140-02 FAS-DPD Titration Kit for Chlorine Titration, Order Code 3176-02 Standard Chlorine Solution, 250 ppm, Order Code 6973-H [60 mL], Order Code 6973-L [475 mL] Permanganate Solution, 1000 ppm, Order Code 3858-H (60 mL)

listing of

STANDARDS SEE PAGE 93

# TRACER PockeTesters

A pocket-sized ISE meter for measuring total chlorine. Use it to test pH and ORP with interchangeable flat surface sensors.

#### **Total Chlorine TRACER**

#### Order Code 1740

- Read Total Chlorine from 0.00-10 ppm
- Readings are not affected by sample color or turbidity
- Automatic self calibration; extra bold display includes an analog bar graph feature; memory can store up to 15 readings
- Chlorine and pH modes also display sample temperature
- Unit identifies which probe is in use and retains calibrations
- Automatic shut-off and Low Battery indicator; uses four 3V CR-2032 batteries



- Includes 100 reagent tablets at almost half the price of similar Chlorine ISE reagents
- Follows EPA protocol for ISE methods

## TRACER KIT with pH, Total Chlorine and ORP probes

#### Order Code 1740-KIT-01

Includes Tracer meter with pH, Total Chlorine and ORP probes, 100 Chlorine tablets, 50 pH 7.0 buffer tablets, tablet crusher and convenient carrying case.

1740-KIT-01



## pH TRACER

#### Order Code 1741

Provided with 4, 7, and 10 pH buffer tablets.

- Rugged flat surface electrode will alert user when it's time to "RENEW"
- A "CAL" indicator shows when to recalibrate and user can select a 1, 2, or 3 point calibration
- Includes Automatic Temperature Compensation and displays temperature while showing pH result

Range:	0.00 to 14.00 pH
Temp:	32° to 149°F (0° to 65°C)
Resolution:	0.01 pH
Accuracy:	±0.01 pH

## TRACER with pH and Total Chlorine probes

#### Order Code 1741-KIT-01

Includes Tracer with pH and Total Chlorine probe, 100 Chlorine tablets, 50 pH tablets, tablet crusher in a convenient carrying case.

#### ORP TRACER

#### Order Code 1742

- High resolution to 1 mV
- Automatic self calibration

Range: -999 to 999 mV
Resolution: 1 mV
Accuracy: ±4 mV

## TRACER KIT

#### with pH and ORP probes

#### Order Code 1742-KIT-01

Includes Tracer with pH and ORP probe, 100 Chlorine tablets, 50 pH tablets, tablet crusher in a convenient carrying case.



#### **OPTIONS**

#### **Additional Probes**

Order Code 1733 pH Sensor (0-14.00/ $\pm$ 0.01 pH) Order Code 1734 ORP Sensor ( $\pm$ 999mV/ $\pm$ 4mV) Order Code 1732 CI2 Sensor (0-10.00/ $\pm$ 10% of reading)

#### **Chlorine Test Tablets**

#### Order Code 7044A-J

Specially formulated just for the TRACER, these deliver a precise amount of iodide for a 20 mL sample. Packages of 100.

## TRACER PockeTesters



TRACER

PockeTester .

F Select

## TDS/SALT/CONDUCTIVITY/TEMP TRACER

#### Code 1749

- Easy to use
- 2% accuracy for EC, TDS, and Salt modules
- Automatic temperature compensation
- Self calibration
- Memory can store up to 25 readings; autopower off after 10 minutes of no button presses
- Automatic shut-off and low battery indicator; uses four 3V CR-2032 button batteries

#### Options:

Order Code 6312-G

EC/TDS/SAL Replacement Electrode\*, Order Code 1765

Sample Cup w/cap, Order Code 1745-1 Conductivity Standard, 84 µS, 30 mL

Conductivity Standard, 1413 µS, 30 mL Order Code 6354-6

Conductivity Standard, 12,880 µS, 30 mL Order Code 6317-G

Conductivity:	0 to 199.9 μS, 200 to 1999 μS, 2.00 to 19.99 mS
TDS:	0 to 9,999 ppm
Salinity:	0 to 9,999 ppm
Temperature	32°F to 149°F (0 to 65°C)
Accuracy:	EC, TDS, Salt: ± 2% FS; Temperature: ± 1°C (1.8°F)

## Fluoride TRACER

#### Order Code 1756

- The first Fluoride meter with built-in Automatic Temperature Compensation and fastest response (<1 min)</li>
- Small sample/TISAB volume required for testing
- Complies with EPA Method 340.2 (Potentiometric Ion Selective Electrode)
- Automatic electronic 1 or 2 point calibration with offset adjustment
- Memory stores 25 labeled readings and water resistant to IP54
- Complete with electrode, 20 TISAB reagent tablets, sensor cap, four 3V button batteries, and 48" (1.2m) neckstrap

#### Options:

TISAB Reagent, 100 Tablets, Order Code 7024-J Fluoride Replacement Electrode\*, Order Code 1757

Fluoride Standard, 1 ppm, 1000 mL, Order Code 2798-M Fluoride Standard, 1,000 ppm, 60 mL, Order Code 4154-H Fluoride Standard, 1,000 ppm, 500 mL, Order Code 4154-L

Fluoride:	0.1 to 10 ppm, max. resolution: 0.1 ppm, accuracy: ±3% rdg
Temperature	32°F to 140°F [0 to 60°C], max. resolution: 0.1 °F, accuracy: $\pm 1.8$ °F/1°C
Accuracy:	EC, TDS, Salt: ± 2% FS; Temperature: ± 1°C (1.8°F)

See page 93 for Larger Sizes of Conductivity Standards



#### Code 1766

- Measures five parameters including Conductivity, TDS, Salinity, pH, and Temperature using one electrode
- Units of measure: pH, μS, mS, ppm, ppt, mg/L, g/L, °C, °F
- Memory stores up to 25 labeled readings; auto power off and low battery indicator
- Adjustable Conductivity to TDS ratio

#### Options:

pH/EC/TDS/SAL Replacement Electrode\*, Order Code 1755 Sample Cups w/cap, Order Code 1745-1

Conductivity Standard, 84  $\mu$ S, 30 mL, Order Code 6312-G Conductivity Standard, 1413  $\mu$ S, 30 mL, Order Code 6354-G Conductivity Standard, 12,880  $\mu$ S, 30 mL, Order Code 6317-G

	Range	Resolution	Accuracy
Conductivity	0 to 199.9 $\mu\text{S}$ , 200 to 1999 $\mu\text{S}$ , 2.00 to 19.99 mS	0.1 μS	±1%
TDS/Salinity	0 to 99.9 ppm (mg/L), 100 to 999 ppm (mg/L), 1.00 to 9.99 ppt	0.1 ppm (mg/L)	±2%
pН	0.00 to 14.00 pH	0.01 pH	±0.01 pH
Temperature	32° to 149°F (0 to 65°C)	0.1°F/°C	±1.8°F/°C

<sup>\*</sup>Not interchangeable with CI/pH/ORP TRACER



See page 34

for pH Tablets

# **Dissolved Oxygen Meters**



## **Dissolved Oxygen Tracer**

#### Order Code 1761

- Oxygen level displayed as % Saturation from 0 to 200.0% or Concentration from 0 to 20.00 ppm [mg/L]
- Adjustable Altitude Compensation (0-20,000 ft in 1,000 ft increments)
- Adjustable Salinity Compensation from 0 to 50 ppt
- Memory stores up to 25 data sets with DO and Temperature reading
- Self-calibration on power up; Data, Hold, Auto power off, Low battery indicator
- Waterproof to IP67
- Optional 3 ft (1m) or 16 ft (5m) extension cable; complete with D0 electrode, protective sensor cap, spare membrane cap, electrolyte, four 1.5V CR-2032 batteries, and 48" (1.2m) neckstrap

	Range	Resolution	Accuracy
DO (sat. mode)	0 to 200.0%	0.1%	±2% FS
DO (conc. mode)	0 to 20.00 ppm (mg/L)	0.01 ppm (mg/L)	0.4 ppm (mg/L)
Temp.	32 to 122°F (0 to 50°C)	0.1°F/°C	±1.8°F (1°C)
Dimensions	Dimensions 1.4x6.9x1.6" [36x176x41mm]		
Weight	3.8 oz (110g)		

#### **Accessories**

- DO Membrane Kit, 6 screw-on membranes and solution (Order Code 1761M)
- DO Sensor Module (Order Code 1762)
- 3 ft. Cable (Order Code 1763)
- 16 ft. Cable (Order Code 1764)

## **Dissolved Oxygen Meter**

#### Order Code 5-0107-01

- No meter warm-up required
- Low-maintenance probe
- Key in salinity and pressure values manually
- Independent 100% and zero adjustment calibrations
- Offset adjustment capabilities
- Displays electrode diagnostics

 Easily toggle from mg/L (ppm) or % saturation to temperature mode



	Range	Resolution	Accuracy	
mg/L (ppm)	0.00 to 20.00 mg/L (ppm)	0.01 mg/L (ppm)	±1.5% FS	
% Saturation	0.0 to 200.0%	0.1%	±1.5% FS	
Temp.	-5.0 to 105.0°C	0.1°C	±0.5°F	
Salinity correction	0.0 to 50.0 ppt	0.1 ppt	Method: Key in manually or automatic correction	
Barometric pressure correction	500 to 1499 mm Hg	1 mm Hg	Method: Key in manually or automatic correction	
Temperature compensation	Automatic from 0 to 5	O°C		
Operating temperature	0 to 50°C			
Probe	Galvanic, 3 ft. probe cable			
Power	Four 1.5 V AAA batteries (included), >700 hrs continuous use			
Dimensions	5.5"L x 2.7"W x 1.3"H			
Weight	1.0 lb (0.45 kg)			

#### **Accessories**

- Replacement Probe (Order Code 5-0129)
- Replacement Membrane Package including electrolyte solution (Order Code 5-0137)

# **PockeTesters**



#### pH PockeTester 10

Order Code 5-0103 (Replacement Electrode, Code 5-0097)

±0.1 pH accuracy

## pH PockeTester 20

Order Code 5-0104 (Replacement Electrode, Code 5-0097)

±0.01 pH accuracy

Both meters feature automatic temperature compensation, and buffer recognition for three point calibration based on US [pH 4.01, 7.00, 10.01] or NIST [pH 4.01, 6.86, 9.18] systems. The sensor is a double junction Ag/AgCl system with polymer gel. The IP67 rated housing features a 1.0625" [26.99 mm] display, which also displays diagnostic messages. Auto-off after 8.5 minutes to conserve battery life.

See page 29 for complete PockeTester specifications



## **Double Junction ORP PockeTester**

#### Order Code 5-0079

- -999 mV to +1000 mV
- Large surface area platinum band sensor
- 1 mV resolution, 2 mV accuracy
- HOLD function, Auto-off



# **PockeTesters**







## Microprocessor-Based TDS Dual Range PockeTester

#### Order Code 5-0080

- 0-2000 ppm (10 ppm resolution); 0-10.00 ppt (0.10 ppt resolution)
- ±1% full-scale accuracy
- Automatic temperature compensation (ATC)
- Replacement electrode
- Push-button calibration
- Auto shut-off
- Full reading displayed no need to multiply

#### Replacement Probe (Order Code 5-0084)

## Salt PockeTester

#### Order Code 5-0078-01

- 0-10 ppt ( 0.10 ppt resolution)
- Carrying Case and calibration standard included

Replacement Probe (Order Code 5-0084)

## Microprocessor-Based EC Conductivity Dual Range PockeTester

#### Order Code 5-0082

- 0-2000 μS (10 μS resolution); 0-20.00 mS (0.10 mS resolution)
- ±1% full-scale accuracy
- Automatic temperature compensation (ATC)
- Replacement electrode
- Push-button calibration
- Auto shut-off
- Full reading displayed no need to multiply

Replacement Probe (Order Code 5-0084)

# **PockeTester Specifications**

	Specifications for	pH PockeTesters	ters Specifications for Specialty PockeTesters		
Model	pH PockeTester 10 pH PockeTester 20		Min-Max Thermometer	lin-Max Thermometer ORP PockeTester	
Code	5-0103	5-0104	5-0095	5-0079	5-0078-01
Range	–1.0 to 15.0 pH;	extended range	-10 to 200°F, 14 to 392°C	-999 mV to +1000 mV	0-10.00 ppt salinity
Resolution	0.1 pH	0.01 pH	0.1°F to 199.9°, 1°C above 200°	1 mV	0.10 ppt salinity
Accuracy	±0.1 pH	±0.01 pH	±1.8°F / ±1.0°C	±2 mV	±10% full-scale
Calibration	Select up to 3 points (4.0, 7.0, 10.0 or 4.01, 6.86, 9.18)		Factory calibrated; fine adjustment through keypad	Offset calibration to ORP standard or work standard	One-point with trimpot
Operating Temperature	32 to 122°F; 32 to 122°F; 0 to 50°C  Automatic (ATC) 0 to 50°C		32 to 122°F; 0 to 50°C	32 to 122°F; 0 to 50°C	32 to 122°F; 0 to 50°C
Temperature Compensation			_	_	Automatic(ATC) 0 to 50°C
Special Functions	On/Off or Auto-Off after 8.5 min.; HOLD; CALibrate; CONfirm		On/Off or Auto-Off after 8.5 min.; HOLD; °F or °C scale selectable; factory calibration maintained when batteries are replaced	On/Off or Auto-Off after 8.5 min.; CALibrate; CONfirm; HOLD (HO) and HOLD/ CANCEL (HC)	On/Off or Auto- Off after 8.5 min.; HOLD; °F or °C scale selectable
Power & Battery Life	Four 1.5V alkaline button cell batteries (supplied), 500 hour use		LR-44 button cell. 2 yr life	Four 1.5V alkaline batteries (supplied) 500 hrs. use	Four 1.5V alkaline batteries (supplied) 150 hrs. use
Dimensions & Weight	8.5" (216 mm) L x 2.4" (61 mm) W x 2.5" (64 mm) H (boxed); 6.5" (165 mm) L x 1.5" (38 mm) Dia. (unit only); 4.5 oz/125 gms (boxed); 3.25 oz./90 gms (unit only) Memory Thermometer Probe: 4.3" (109 mm) x 0.14" (4 mm); top is 1.8" (46 mm); weight 3 oz				

	Specifications for TDS & EC Waterproof PockeTesters			
Model	TDS Dual Range	EC Dual Range		
Code	5-0080	5-0082		
Replacement Electrode	5-0084	5-0084		
Range	0-2000 ppm/ 0-10 ppt	0-2000 μS; 0 to 20 mS		
Resolution	10 ppm/0.10 ppt 10 μS; 0.10 mS			
Accuracy	±1%FS			
Calibration	One-point, push-button calibration using buttons inside battery compartment			
Operating Temp.	32 to 122°F; 0 to 50°C			
Temperature Comp.	Automatic (ATC	c) 0 to 50°C		
Special Functions	Full reading displayed			
Power & Battery Life	Four 1.5V alkaline batteries (supplied); 150 hours			
Dimensions & Weight	8.5" (216 mm) L x 2.4" (61 mm) W x 2.5" (64 mm) H (boxed); 6.5" (165 mm) L x 1.5 (38 mm)" Dia. (unit only); 4.5 oz./125 gms (boxed); 3.25 oz./90 gms (unit only)			

# Temperature Measurement



Blue backlight: within temperature range



Red backlight plus audible alert: exceeds temperature

## IR Meter with Color Alert System

#### Code 5-0133

Convenient non-contact temperature measurements, now with a laser sighting, plus color and sound alerts!

#### **Features**

- Fast and accurate measurements at 12" where the two lasers converge with 12:1 field of view
- Measures up to 950°F (510°C)
- Blue backlit dual LCD display changes to Red backlit outside set points
- Instantaneous response captures spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings
- Adjustable emissivity increases measurement accuracy for different surfaces
- Double molded housing
- Complete with case and 9V battery
- Adjustable High/Low set points with color and audible alarms signal out of range temperature

Range:	-4 to 950°F (-20 to 510°C)
Resolution:	1°C/1°F
Accuracy:	25 to 260°C (77 to 500°F): ±(1% of rdg +2°F/1°C)
Repeatability:	±0.5% or 1.8°F/1°C
Response Time:	150mSec
Emissivity:	0.10 to 1.00 adjustable
Distance-to-Spot Size:	12:1
Power:	One 9V alkaline battery
Dimensions:	5.7 x 4 x 1.6 inches (146 x 104 x 43 mm)
Weight:	5.74 oz. (163g)

## "Min-Max" Memory Thermometer

#### Order Code 5-0095

- Range: 14 392°F or -10 200°C
- °F or °C selectable scale
- Recalls minimum and maximum temperature

See page 29 for specifications



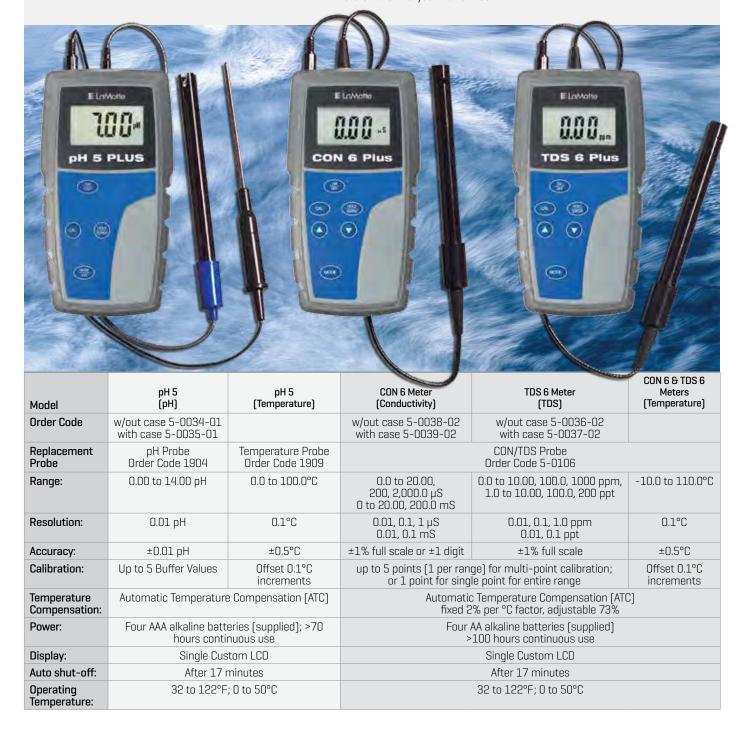
## **Economical Field Meters**

## LaMotte pH, CON, TDS Meters

- Push button operation
- Up to five point calibration
- Temperature readout
- Automatic Temperature Compensation
- Auto-off after 17 minutes; Hold function
- Buffer recognition (pH 5 meter)
- Adjustable conductivity to TDS factor (TDS 6 meter)

Microprocessors have enabled meter manufacturers to combine many features into smaller designs with better accuracy. The 5 and 6 Series meters are good examples (see specifications below). All meters include electrodes and temperature probes, and are available with or without a carrying case.

- The pH 5 without case includes pH 4, 7 and 10 buffer tablets
- The pH 5 with case includes pH 4, 7 and 10 buffer liquids
- The TDS 6 and Con 6 with carrying cases include two calibration standards
- All meters have two-year warranties



# pHPLUS Direct Digital pH/ISE Meter



## pHPLUS DIRECT Meter

Laboratory precision in a water-resistant design! Read pH, mV/R.mV, temperature, and concentration with accuracy—ISEs read concentration in ppm. Easy-to-use in any test mode. Includes pH probe, temperature probe, buffers and rubber boot with stand.

#### **Specifications**

nН

**Range:** 0.00 to 14.00

Resolution: 0.01
Accuracy: 0.01

**Calibration:** Up to 5 points **Electrode:** Epoxy, Ag/AgCl

Temperature

Range: 0 to 100°C Resolution: 0.1°C Accuracy:  $\pm 0.1$ °C

Concentration

Range: 0.00 to 100 Resolution:  $\pm$  LSD

Accuracy: ±0.5% or ±1 LSD

mV/R.mV

Range:  $\pm 500$ mV

Accuracy:  $\pm 1$  mV

Resolution: 1 mV

Calibration: Up to 5 points

**Inputs:** 1 BNC, Temp probe, power, ref. pin

Power: 4 AAA batteries

**Size (LxWxH):** 2.75W x 5.75H x 1.375D in.

#### pHPLUS DIRECT Meter

Code	Description
5-1936-01	pHPLUS DIRECT Meter, liquid buffers [4, 7, 10] w/case
1904	pH Electrode, gel-filled
1909	Temperature Probe



## Optional ISE Electrodes\*

Although the pHPLUS Direct reads directly in ppm, an initial calibration is required. The standard solution, replacement electrolyte, ionic strength adjustor and pipet are included in the Accessory Kit. The ammonia accessory kit also contains replacement membranes.

#### Ion Selective Electrodes

Code	Description
5-0043	Ammonia
5-0048	Fluoride
5-0052	Nitrate

#### **Accessory Kits**

Code	Description
5-0098	Ammonia
5-0099	Fluoride
5-0100	Nitrate

\*Accessory Kit required to calibrate the ISE.

# **DPD** Reagents

#### DPD Instrument Grade TesTabs®

LaMotte has developed a rapid dissolve instrument grade DPD tablet system. Instrumental analyses require a clear, particle-free testing solution. In the past, it was necessary to use a crusher to dissolve the instrument grade tablets. Now, free and total chlorine samples can be done with instrument grade tablets that dissolve without crushing.

	ζ	luan	itity/	/Orc	ler (	Code
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Tablet	50	100	1000	Ship Code
Chlorine DPD #1 Instrument*	6903A-H	6903A-J	6903A-M	NH
Chlorine DPD #3 Instrument*	6197A-H	6197A-J	6197A-M	NH
Chlorine DPD #4 Instrument*	6906A-H	6906A-J	6906A-M	NH

<sup>\*</sup> Instrument DPD featuring ultra-clear fast dissolving tablets.

See pages 71 for Visual Tablets



## **DPD Liquid Reagents**

The liquid alternative to DPD tablets can be used with existing LaMotte chlorine comparators or colorimeters. DPD 1A and DPD 1B are added to a 5 or 10 mL sample to test Free Available Chlorine. DPD 3 is added to the reacted sample to measure Total Chlorine.

30 mL (1 oz.)	Code	Ship Code
DPD 1A	P-6740-G	NH
DPD 1B	P-6741-G	R2
DPD 3	P-6743-G	NH

60 mL (2 oz.)	Code	Ship Code
DPD 1A	P-6740-H	NH
DPD 1B	P-6741-H	R2
DPD 3	P-6743-H	NH



# pH Buffers/Electrode Soaker



# Standardized pH Buffer Solutions

For use in calibration of pH meters. Ordering information for all buffers is listed below.

pH Value	Code	Size
4.01	2866-J 2866-L	120 mL 500 mL
6.86	2808-L	500 mL

Note: Other pH values available

pH Value	Code	Size
7.00	2881-J 2881-L	120 mL 500 mL
9.18	2809-L	120 mL
10.00	2896-J 2896-L	120 mL 500 mL



## Color-Coded pH Buffer Solutions

Minute amount of color permits immediate visual distinction of different buffer values.

pH Value	Code	Color	Size
4.01	3771-L	Red	500 mL
7.00	3772-L	Yellow	500 mL
10.0	3773-L	Blue	500 mL

## See page 93 for Additional Sizes

#### **Buffer Tablets**

Add one tablet to 20 mL of Deionized Water to produce buffers. Available in 50 and 100 tablet packs. In foil strips of 10 tablets each.



## **Electrode Soaker Bottle**

#### Order Code 0668

Continuously soaks pH electrode in a storage solution to prevent probe dry out. Twist top "O" ring seal prevents leaks.



# **Conductivity Solutions**



See page 93 for Additional Sizes

## Conductivity/TDS Solutions

The following potassium chloride solutions can be used to standardize conductivity meters. TDS values are based on a 0.7 conversion from conductivity.

Code	Description	Size
6416-L	74 μS/cm, 52 ppm	500 mL
6312-L	84 μS/cm, 59 ppm	500 mL
6417-L	718 µS/cm, 503 ppm	500 mL
6354-L	1,413 μS/cm,989 ppm	500 mL
6418-L	6,668 µS/cm, 4668 ppm	500 mL
6317-L	12,880 μS/cm, 9016 ppm	500 mL
6419-L	58,640 µS/cm, 41,048 ppm	500 mL

## **Conductivity Neutralizing Solutions**

Used to neutralize hydroxl ion in boiler water, thus enabling accurate determinaion of ionic conductivity.

Code	Description	
6483-H (60 mL) 6483-L (500 mL) 6483-N (3800 mL)	Conductivity Neutralizing Solution	Contains citric acid and phenolphthalein. Add liquid until sample changes color. Available in 60 mL, pint, and gallon sizes.
6479-J	Gallic Acid Powder	Organic acid powder; indicator must be purchased and added separately. Add raw powder to sample containing indicator until color changes. Available in 100 g.
3705-L	Acid Indicator	Contains acetic acid and phenolphthalein. Add liquid until sample changes color. Available in 500 mL (pint).



# Convenient and Economical

## Single Factor Test Strips

LaMotte offers a convenient, economical way to perform spot checks for several water quality factors.  LaMotte test strips are a great way to monitor water without having to use reagents or field kits. Strips are available for the factors belowand we're working on more!  Single Factor Test Strips					
Single Factor Test	Strips				Mono
Test Factor	Code	Range (ppm)	Water Testing Application*	# of Tests Per Factor/Per Vial	Values (ppm)
Alkalinity	2997	0-180	Drinking, Food/Beverage	50	0, 40, 80, 120, 180
Ammonia	3023-G	0-6	Food/Beverage/Drinking	25	0, 0.5, 1.0, 3.0, 6.0
Borate	3017-G	0-80	Pool	25	0, 15, 30, 50, 80
Chlorine Dioxide	2999LR	0-10	Drinking, Food/Beverage	50	0, 0.25, 0.5, 1, 3, 10
Chlorine Dioxide	3002	0-500	Medical, Food/Beverage	50	0, 10, 25, 50, 100, 250, 500
Chlorine, Free, Low Range	2964-G	0-10	Drinking, Food/Beverage, Medical	25	0, 0.5, 1, 3, 5, 10
Chlorine, Total, Low Range	2963LR-G	0-10	Drinking, Food/Beverage, Medical	25	0, 0.25, 0.5, 1, 3, 10
Chlorine, Total, Low Range	2963LR-J	0-10	Drinking, Food/Beverage, Medical	100	0, 0.25, 0.5, 1, 3, 10
Chlorine, Total, Low Range	2979	0-5	Drinking, Food/Beverage	50	0, 0.5, 1, 3, 5
Chlorine, Free & Total	3027-G	0-10	Drinking, Food/Beverage, Medical	25	0, 0.5, 1, 3, 5, 10
Chlorine, High Range	3031	0-800	Food/Beverage, Medical	50	0, 50, 100, 250, 500, 800
Copper	2991-G	0-3.0	Drinking, Pool	25	0, 0.3, 0.6, 1, 3
Hardness, Low Range 2981		0-180	Drinking, Food/Beverage	50	0, 30, 60, 120, 180
Iron	2935-G	0-5	Drinking, Pool	25	0, 0.3, 0.5, 1, 3, 5
Molybdenum Kit*	3628-01	0-5	Industrial	50	0, 0.5, 1, 2, 5
Nitrate	3012-G	0-200	Pool	25	0, 10, 30, 60, 120, 200
pH, Wide Range	2974	4-10 (pH)	Drinking, Food/Beverage	50	4, 5, 6, 7, 8, 9, 10
Peracetic Acid	3000	0-160	Food/Beverage	50	0, 10, 20, 50, 85, 160
Peracetic Acid, Low Range	3000LR	0-50	Food/Beverage	50	0, 5, 10, 20, 30, 50
Peracetic Acid, High Range	3000HR	0-1000	Food/Beverage	50	0, 50, 100, 250, 500, 1000
Hydrogen Peroxide HR	2984	0-90	Pool	25	0, 15, 30, 50, 90
Hydrogen Peroxide	2984LR	0-50	Drinking, Food/Beverage	25	0, 1, 3, 10, 30, 30, 50
Phosphate, Low Range	3021	0-2500 ppb	Pool	25/50	0, 100, 200, 300, 500, 1000, 2500 ppb
Phosphate, High Range	3040-G	3000-12000 ppb	Pool	25	3000, 6000, 12000 ppb
QAC Dual Range	2934	0-80 0-800	Food/Beverage	50	Low: 0, 10, 20, 40, 80 ppm High: 0, 100, 200, 400, 800 ppm
Sodium Chloride	2998	1500-5000	Pool	10, 50	1500, 2000, 2500, 3000, 3500, 4000, 5000

<sup>\*</sup> Kit includes a pre-treatment reagent.





ACCURATE & RELIABLE Easiest test strips to read.

CONNECTED CAP Can't fall into the water or be lost.

HINGE GUARANTEE Rated for 1000+ openings.

**LEAKPROOF** Airtight seal meets USDA and FDA requirements.

**DESICCANT WALL** Can't fall onto wet hands.

6 GRAMS (NOT 3) Desiccant liner is double the industry standard for moisture protection.

**DOUBLE DUTY** High-density outer shell, combined with desiccant liner, ensure less moisture and light.

**HDPP PROTECTION** High density polypropylene plastic protects better than common HDPE bottles.

## **Accurate and Reliable**

## **Multi-Factor Test Strips**

Test Factor	Code	Range	Water Testing Application*	# of Tests Per Factor/ Per Vial	Values (ppm)
Copper, pH, & Alkalinity (sold only in case of 12)	3001-G	0-3 Copper 6.2-8.4 pH 0-240 Alkalinity	Pool	25 25 25	0, 0.3, 0.6, 1, 3 6.2, 6.8, 7.2, 7.6, 8.0, 8.4 0, 40, 80, 120, 180, 240
Iron & Copper	2994	0-5 Iron 0-3 Copper	Drinking, Pool	25 25	0, 0.3, 0.5, 1, 3, 5 0, 0.3, 0.6, 1, 3
Iron, pH, Hardness, Total Chlorine	2992	0-5 Iron 4-10 pH 0-400 Hard 0-10 TCI	Drinking, Industrial Water	25 25 25 25	0, 0.3, 0.5, 1, 3, 5 4, 5, 6, 7, 8, 9, 10 0, 50, 100, 200, 400
Wide Range (pH & Total Chlorine)	2987-G	4-10 pH 0-50 TCl	Drinking, Pool, Food/Beverage	25 25	4, 5, 6, 7, 8, 9, 10 0, 1, 5, 10, 20, 50
6-Way Drinking Water	2933-G	0-10 FCI 0-10 TCI 0-400 Total Hardness (0-23 gpg Total Hardness) 4-10 pH 0-10 Nitrite 0-10 Nitrate	Drinking	25	0, 0.5, 1, 3, 5, 10 0, 0.5, 1, 3, 5, 10 0, 50, 100, 200, 400 (gpg: 0, 3, 5.8, 11.7, 23) 4, 5, 6, 7, 8, 9, 10 0, 0.5, 1, 5, 10 0, 5, 10, 25, 50
5-Way Natural Water Fresh & Salt Water	3038-G	0-200 Nitrate 0-10 Nitrite 6.0-9.0 pH 0-240 Alkalinity 0-180 Total Hardness	Environmental, Aquarium	25	0, 20, 40, 80, 160, 200 0, 0.5, 1, 3, 5, 10 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0 0, 40, 80, 120, 180, 240 0, 30, 60, 120, 180
Nitrate & Nitrite	2996	0-50 (Nitrate) 0-10 (Nitrite)	Drinking	50 50	0, 5, 10, 25, 50 (NO <sub>3</sub> -N) 0, 0.5, 1, 5, 10 (NO <sub>2</sub> -N)

E-WAY
Nitrate, Nitrite, pH, Free Chiorine, Total Chiorine & Total Hardness
as Total Pierre

Sees 2007-0

## Sanitizer Test Papers & Strips

Chemically treated paper strips change to indicate sanitizer level. Strips and color chart are packaged in a waterproof plastic vial. 2951 is specifically formulated to read all types of QAC.

Factor	Order Code	Range
Chlorine	4250-BJ	10, 50, 100, 200 ppm (200 papers)
Chlorine, Free, High Range	3031	0, 50, 100, 250, 500, 800 ppm (50 strips)
lodine	2948-BJ	12, 25, 50, 100 ppm (200 papers)
QAC	2951	50, 100, 200, 400 ppm (100 strips)
QAC	3072-J	0, 100, 200, 300, 400, 500 ppm (100 strips)
QAC Dual Range Test Strips	2934	Low Range: 0, 10, 20, 40, 80 High Range: 0, 100, 200, 400, 800 (50 strips)
High Range QAC	2951HR	200, 400, 600, 1000, 1500 ppm (50 strips)

For PERACETIC ACID Test Strips, see page 36.



<sup>\*</sup>Strips shown have been evaluated for use in these applications. Use in other applications is subject to potential interferences. Contact LaMotte Technical Services for more information.

# Micro Testing Simplified!





- Ready to use. Saves time!
- Longer shelf-life than traditional Petri dishes
- No refrigeration required

BioPaddles® are flexible dual-agar paddles each containing microbe-specific media enclosed in a sterile vial. Identify and quantify microbes in air, soil, water, or any surface!

**Liquid Sampling:** Remove the paddle from the vial and fill the vial (approximately 40ml) with the sample. Insert the paddle, swirl for 15 seconds. Pour out the liquid, replace the paddle in the vial, and incubate.

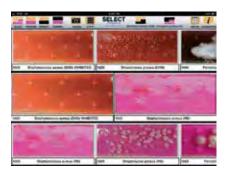
**Surface Sampling:** Remove the paddle from the vial and gently touch each paddle media surface to the sample surface. Replace paddle in the vial and incubate.

**Air Sampling:** Remove the paddle from the vial. Invert and mount the circular cap into the vial, exposing the agar covered paddle. Expose for 15 minutes. Replace the paddle in the vial and incubate.

All BioPaddles® products come with a **free app! LaMotte BioPaddles Colony ID™ App** lets users compare colony examples on BioPaddle agar types from 5 microhabitats (air, water, soil, surface and food). Also contains information regarding organisms, microbiological techniques, and more!

For fresh, brackish, and salt water use.

BioPaddles® Products—all packaged 10 paddles per box. Includes general instructions and provides access to detailed Technical Documents for each paddle type.





Type Of Agar(s)	Description	Code
Nutrient	For routine culture of non-fastidious bacteria.	5550
Sabouraud Dextrose	For selective cultivation of fungi (yeasts and molds)	5551
Tryptic Soy (TSA)/ Rose Bengal (RB)	For cultivation of a wide variety of microorganisms (TSA) and selective isolation of yeasts and molds (RB).	5552
Nutrient TTC/ MacConkey	TTC. For field sampling cultivation and enumeration of coliform bacteria total coliform count (TCC). Gram (-) bacterial colonies appear as red dots. Gram (+) bacteria are usually inhibited.  MAC. Medium gives improved differentiation between coliforms and non-lactose fermenting organisms. Gram (+) cocci are usually inhibited.	5553



https://itunes.apple.com/us/app/id567584998

## Bacteria & Coliform Testing Kit

### Total Coliform & E. coli Bacteria Test · 4-3616-UV

A simple 5-tube method to indicate the presence or absence of Total Coliform & E. coli Bacteria in drinking water. E. coli produces fluorescent compound.

- Presumptive test for Total Coliform & E.
- NO incubation equipment required
- Results in 44-48 hours at room temperature
- (70° 85°F) or 24-hours at 110°F
- 18-month shelf life
- UV light source included (365 nm)
- Portable, no accessory labware required
- Ideal test for well water and coliform breakthrough in distribution systems
- Independent laboratory tested (results) available upon request)









## Coliform Screening Test · 4-3616-UV

A simple 5-tube method to indicate the presence or absence of Total Coliform Bacteria in drinking water:



- Presumptive test for Total Coliform Bacteria
- NO incubation equipment required
- Results in 44-48 hours at room temperature (70° - 85°F)
- 18-month shelf life
- Portable, no accessory labware required
- Ideal test for well water and coliform breakthrough in distribution systems
- Independent laboratory tested (results) available upon request)

Code	Test System	Range/Sensitivity	# of Tests (# of Reagents)	Shipping Code (Wgt./lbs)
4-3616-UV	Tableted nutrient based on 5 tube MPN	Presence/Absence	1(1)	NH (1)
4-3616	Tableted nutrient based on 5 tube MPN	Presence/Absence	1(1)	NH (1)

## **Biological Activity Reaction Test**

A simple yet effective method for monitoring the population size and/or activity of specific groups of bacteria.

#### **BART Biodetector**

With BART, you can monitor for Iron Related Bacteria (IRB), Sulfate Reducing Bacteria (SRB) and Heterotrophic Aerobic Bacteria (HAB) – the three most important agents involved in biofouling. Other BART systems are described below. These bacteria can cause corrosion, clogging, fouling of the water, and increased hygiene risks, so it is important to have an easy and accurate method of determining their presence and level of activity.

### Easy to Use

The BART Biodetector requires no microscope, no laboratory, and no incubator! The test is done at room temperature in your office or treatment room, on a desk, shelf, or in a cupboard, and is viewed daily. Different microorganisms like to grow at different heights in a column of water to which nutrients have been added. BART biodetectors contain nutrients in the base of a column and a ball. The ball restricts the amount of oxygen entering the water column, so that aerobic organisms grow around the ball and anaerobic organisms grow deep down in the water column. By changing the nutrients in the base of the column, different organisms are encouraged to grow. BART determines presence and activity levels.



### Easy to Analyze

The time taken for a color change (reaction) to occur gives a measure of the population size and activity. A color change occurs in the BART tube as a result of the oxygen gradient diffusing from the bottom upward. The change of color indicates a presence of bacteria within that sample. Interpretation is provided with the kit.

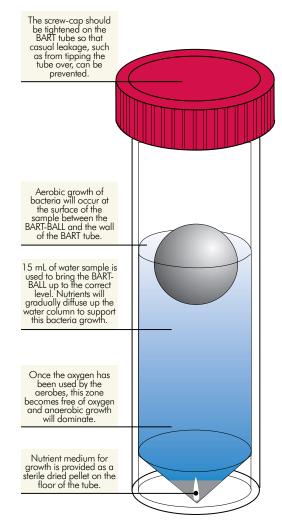
#### The Test

Full instructions for the use of BART biodetectors are included with your purchase. Each individual test consists of:

- Test vial with media and BART ball
- Outer tube for spill containment, odor control, disinfection, and disposal

#### To Order

Each kit number below includes nine [9] BARTs. Each BART test is color-coded for quick and easy recognition.



BART Color	Test	Order
Red	Iron Related Bacteria - IRB-BART	5-0024
Black	Sulfate Reducing Bacteria - SRB-BART	5-0025
Lime green	Slime Forming Bacteria - SLYM-BART*	5-0026
Combo	Three each of IRB-, SRB-, and SLYM-BART	5-0032
Blue	Heterotrophic Aerobic Bacteria - HAB-BART	5-0027

<sup>\*</sup>The SLYM-BART requires the use of a fluorescent lamp (Order Code 5-0033)

# **Acidity | Aluminum**



7182-01	HCl, H <sub>2</sub> SO <sub>4</sub> , H <sub>3</sub> PO <sub>4</sub> Dropper Bottle	1 drop = 0.1 or 1.0% (as the particular acid)	50 at 10% (2)	R- <b>7182-01</b>	R1 (1)
	s use titrations with standard kalinity determinations.	acid to the phenolphthalein (P) and/or total (	T) alkalinity endpoint. T	he mixed indicat	or, BCG-MR, is
4491-DR-01	Total Alkalinity Direct Reading Titrator	O-200 ppm/4ppm as CaCO <sub>3</sub> CaCO <sub>3</sub>	50 at 200 ppm (2)	R-4491- DR-01	NH [1]
4533-DR-01	P & T Alkalinity Direct Reading Titrator	0–200 ppm/4 ppm as $CaCO_3$	50 at 200 ppm (3)	R-4533- DR-01	NH (1)
4533-01	P & T Alkalinity Dropper Pipet	1 drop = 10 ppm as CaCO <sub>3</sub>	50 at 200 ppm (3)	R- <b>4533</b>	NH (1)
7240-02	P & T Alkalinity Dropper Bottle	1 drop = 10, 25, or 50 ppm as $CaCO_3$	100 at 500 ppm (3)	R- <b>7240-02</b>	R1 (2)
3467-01*†	P & T Alkalinity Direct Reading Titrator	0–200 ppm/4 ppm as $CaCO_3$	50 at 200 ppm (3)	R- <b>3467-01</b>	R1 (1)
<b>ALUMINUM</b> A pi	ink to red color will form when	aluminum reacts with Eriochrome Cyanine R	Rat pH 6.		
3569-01	Octa-Slide 2 Comparator	0, 0.1, 0.15, 0.2, 0.25, 0.3, 0.4, 0.5 ppm Al <sup>3+</sup>	50 (2)	R-3569-01	NH (1)
	4				
	*				
				1	

Ship Codes: (NH) Non-Hazardous Material - No Fees · (R1) Small Qty. Hazardous Material - No Fees · (LQ, R2, R3) Hazardous Material - Air Fees Only · (HF) Hazardous Material - Air & Ground Fees \*(NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

# Ammonia Nitrogen | Bromine



Order Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Tests (# Reagents)	Reagent Refill Order Code	Shipping Code (Weight/Lbs)	
reacts to form	n a blue color, which in combination	s are available. Nessler's reagent reacts with amin n with the yellow reagent color produces colors f ontain mercury salts as does the Nessler method	from yellow to bl			
3304-01	Salicylate, Octa-Slide 2 Comparator	0.0, 0.05, 0.1, 0.25, 0.5, 1.0, 2.0 ppm NH <sub>3</sub> -N	50 (3)	R-3304-01	R2 (1)	
5864-01	Salicylate Color Chart	0.1, 0.25, 0.50, 1.0, 2.0, 4.0 ppm NH <sub>3</sub> –N	50 (2)	R-5864-01	R1 (1)	
4795-01	Nessler, Octa-Slide 2 Comparator	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0 ppm NH <sub>3</sub> –N	50 (2)	R-3315	R1 (1)	
3241 DC1500-NH	Nessler Colorimeter	0-5.0/0.05	60	R-3241	R1 (5)	
reacts with th	procedure requires about 15 minu e test strip in a closed container a ncentration in ppb.	utes and employs a test strip. Inorganic As+3 an nd produces yellow to brown colors on the strip.	d As+5 are conv The strip color is	erted to arsine ga s compared to a c	s. This color chart to	
4053-02	Test Strip	<4, 4, 8, 10, 12, 14, 16, 20, 25, 30, 50, 85, 100, 150, 175, 200, 300, 400 ppb	50	R-4053-02	R1 (8)	
BACTERIA Se	e Microbiological Testing section p	ages 36-38.				
BLEACH (See	Chlorine Bleach)					
BROMINE Bromine may be tested using color development with DPD, or by a ferrous ammonium sulfate titration in the presence of DPD indicator. The 6824 kit uses glycine to enable the user to separate bromine and chlorine. The 3624 titration kit uses one sample size to test chlorine and one to test bromine. It includes a 1:10 dilution for determination of concentrations of 100 ppm or higher.						
3624-01	FAS Chlorine or Bromine, Direct Reading Titrator	0-10 ppm/0.2 ppm Cl or Br 0-100 ppm/2 ppm Cl or Br	50 at 10 ppm (3)	R- <b>3624-01</b>	NH (1)	
			4	-		
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# Cadmium | Chloride



To measure sodium chloride levels in pools see test strips on page 68.

Code 7297-DR-01

ř	Order Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Tests (# Reagents)	Reagent Refill Order Code	Shipping Code (Weight/Lbs)
	<b>CADMIUM</b> A dithize	one extraction of cadmium	produces a pink to red color.			
	7839-02	Octa-Slide 2 Comparator	0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.8, 1.0 ppm Cd	20 (4)	R- <b>7839-0</b> 2	HF (1)
	CALCIUM (See Har	dness)				
	CARBON DIOXIDE	A standard alkali is used to	titrate samples to the phenolphthalein endp	ooint.		
	7297-DR-01	Direct Reading Titrator	0-50 ppm/1.0 ppm CO <sub>2</sub>	50 at 50 ppm (2)	R-7297-DR-01	R1 (1)
			recipitate any carbonates, then is titrated was $1\mathrm{drop}=0.1\%$ or $1\mathrm{drop}=1\%$ equivalence.		the phenolphthale	in endpoint. Kit
	7516-DR-02	Direct Reading Titrator	0-10%/0.2% NaOH	50 at 10% (4)	R- <b>7516-DR-02</b>	R1 (1)
-	7181-01	Dropper Bottle	1 drop = 0.1 or 1% NaOH	50 at 10% (3)	R- <b>7181-01</b>	R1 (1)
	<b>CHELANT</b> Free che other metals from	elant is determined by using chelants, it is used for total	the back titration of a hardness test, with n chelant determinations. Both tests use diffe	nagnesium as the titra erent sample sizes to	ant. Since bismuth determine NTA or E	will displace DTA.
	7144-01	Free Chelant Dropper Bottle	1 drop = 2 ppm EDTA 1 drop = 2 ppm NTA	100 (3)	R- <b>7144-01</b>	R1 (1)
	7143-01	Total Chelant Dropper Bottle	1 drop = 5 ppm EDTA 1 drop = 5 ppm NTA	100 (3)	R- <b>7143-01</b>	HF (1)
		entometric method is used 172-02 to eliminate sulfite i	with all kits. This employs a chromate indic nterference.	ator and silver nitrate	titrant. Hydrogen p	eroxide is
	3468-01*†	Direct Reading Titrator	0-50 ppm/1 ppm Cl <sup>-</sup>	50 (2)	R-3468-01	NH (1)
	4503-DR-02	Direct Reading Titrator	0–200 ppm/4 ppm Cl <sup>–</sup> 0–20,000 ppm/400 ppm	50 at 200 ppm (4)	R-4503-DR-02	R1 (1)
	7459-02	Salinity Direct Reading Titrator	0-20 ppt/0.4 ppt Salinity	50 at 20 ppt (2)	R- <b>7459-02</b>	R1 (1)
•	7172-02	Dropper Bottle	1 drop = 10, 25, or 50 ppm Cl <sup>-</sup>	120 at 100 ppm (5)	R- <b>7172-0</b> 2	R1 (2)
	THE PERSON NAMED IN	The second secon		ALCOHOLD TO		

# Chlorine

## TWO CHOICES FOR REFILLS:

- 1. For a complete set, add "R-" to the kit number.
- For individual reagents, order by the code on the reagent.
   See pages 76-83 for a list of kit reagents.



Code 3240

Octa-Slide 2 Comparator  DPD Tablet Octa-Slide 2 Comparator High: 1.0-6.0 ppm Cl High: 1.0-6.0 ppm Cl Octa-Slide 2 Comparator  DPD Tablet Octa-Slide 2 Comparator Octa-Slide 2 Comparator  DPD Tablet Colorimeter  DPD Tablet Colorimeter  DPD Liquid Colorimeter  DPD Liquid Colorimeter  DPD FREE, MONO & DICHLORAMINES, TOTAL CHLORINE, pH	308-01*	DPD Tablet Octa-Slide 2 Comparator	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm Cl	50 (2)	R- <b>3308-01</b>	NH (1)
Octa-Slide 2 Comparator         High: 1.0-6.0 ppm Cl           3328-01         DPD Tablet Octa-Slide 2 Comparator         1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0 ppm Cl         50 (2)         R-3328-01         NH (1)           3240 DC1500         DPD Tablet Colorimeter         0-4.0 ppm/0.05 ppm Cl         100 (2)         R-3670-01         NH (4)           3240-LI DC1500-LI         DPD Liquid Colorimeter         0-4.0 ppm/0.05 ppm Cl         144 (3)         R-3670-01-LI         R1 (5)           DPD FREE, MONO 6 DICHLORAMINES, TOTAL CHLORINE, pH           6980-01         DPD Tablet/ Phenol Red Tablet         Low: 0.1-1.0 ppm Cl         200 (5)         R-6980         NH (7)	3312-01*		0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.8, 1.0 ppm Cl	50 (2)	R-3312-01	NH (1)
Octa-Slide 2 Comparator           3240 DC1500         DPD Tablet Colorimeter         0-4.0 ppm/0.05 ppm Cl         100 (2)         R-3670-01         NH (4)           3240-LI DC1500-LI         DPD Liquid Colorimeter         0-4.0 ppm/0.05 ppm Cl         144 (3)         R-3670-01-LI         R1 (5)           DPD FREE, MONO & DICHLORAMINES, TOTAL CHLORINE, pH           6980-01         DPD Tablet/Phenol Red Tablet         Low: 0.1-1.0 ppm Cl         200 (5)         R-6980         NH (7)	3314-01*		Low: 0.1–1.0 ppm Cl High: 1.0–6.0 ppm Cl	100 (2)	R- <b>3314-01</b>	NH (1)
DC1500         Colorimeter           3240-LI DC1500-LI         DPD Liquid Colorimeter         0-4.0 ppm/0.05 ppm Cl         144 [3]         R-3670-01-LI         R1 [5]           DPD FREE, MONO & DICHLORAMINES, TOTAL CHLORINE, pH           6980-01         DPD Tablet/ Phenol Red Tablet         Low: 0.1-1.0 ppm Cl         200 [5]         R-6980         NH [7]           High: 1.0-6.0 ppm Cl	3328-01		1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0 ppm Cl	50 (2)	R- <b>3328-01</b>	NH (1)
DC1500-LI Colorimeter  DPD FREE, MONO & DICHLORAMINES, TOTAL CHLORINE, pH  6980-01 DPD Tablet/ Low: 0.1-1.0 ppm Cl 200 (5) R-6980 NH (7) Phenol Red Tablet High: 1.0-6.0 ppm Cl	3240 DC1500		0–4.0 ppm/0.05 ppm Cl	100 (2)	R-3670-01	NH [4]
6980-01 DPD Tablet/ Low: 0.1-1.0 ppm Cl 200 (5) R-6980 NH (7) Phenol Red Tablet High: 1.0-6.0 ppm Cl	3240-LI DC1500-LI		0-4.0 ppm/0.05 ppm Cl	144 (3)	R-3670-01-LI	R1 (5)
Phenol Red Tablet High: 1.0-6.0 ppm Cl	DPD FREE, MO	NO & DICHLORAMINES, TOTA	L CHLORINE, pH			
	6980-01	Phenol Red Tablet	High: 1.0-6.0 ppm Cl	200 (5)	R-6980	NH (7)
		-		-	AND DESCRIPTION OF THE PERSON	

Ship Codes: (NH) Non-Hazardous Material - No Fees · (R1) Small Qty. Hazardous Material - No Fees · (LQ, R2, R3) Hazardous Material - Air Fees Only · (HF) Hazardous Material - Air 6 Ground Fees \*(NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

# **Chlorine | Chlorine Test Papers**



Clean sample cells used in DPD test reactions as soon as possible. DPD can stain!

Code 4497-01

CHLORINEOr FOR FREE AND TOTAL CHLORINE           3176-02*†         Direct Reading Titrator         0-10 ppm/0.2 ppm Cl or Br O-100 ppm/(0.2 ppm Cl or Br O-100 ppm Cl or Br O-100 ppm Cl or Br O-200 ppm (0.2 ppm Cl or Br O-200 ppm Cl or Br O-	PDPD-FAS TITRATION FOR FREE AND TOTAL CHLORINE           3176-02*†         Direct Reading Titrator         0-10 ppm/0.2 ppm Cl or Br O-10 ppm/(2) ppm Cl or Br Direct Reading Titrator         0-10 ppm/0.2 ppm Cl or Br D-100 ppm/(2) ppm Cl or Br Direct Reading Titrator         NH [2]           7514-01         FAS PASS BOTTLE TITRATION (For higher total Titration)         1 drop = 0.2 or 0.5 ppm Cl         \$0 at 200 ppm [3]         R-7514-01         NH [1]           H497-DR-01         Direct Reading Titrator         0-200 ppm/4 ppm Cl         \$0 at 200 ppm [3]         R-4497-DR-01         R2 [1]           4497-DR-01         Direct Reading Titrator         0-200 ppm Cl         \$0 at 200 ppm [3]         R-4497-DR-01         R2 [1]           4501-01         Dropper Pipet         1 drop = 10 ppm Cl         \$0 at 200 ppm [3]         R-4497-DR-01         R2 [1]           H497-DR-01         1 drop = 10 ppm Cl         \$0 at 200 ppm [3]         R-4497-DR-01         R2 [1]           H596-Pipet         1 drop = 10 ppm Cl         \$0 at 200 ppm [3]         R-4497-DR-01         R2 [1]           H596-Pipet         1 drop = 10 ppm Cl         \$0 at 200 ppm [3]         R-7105-03         R1 [2]           H596-Pipet         1 drop = 0.005%, 0.05%, or 0.5% Cl         \$0 at 10% [3]         R-7105-03         R1 [2]
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# Chlorine Dioxide | Detergents

Reagent Tip:
Determine when your reagent was made and bottled. The first two numbers of a lot number signify the week, the third is the year the reagent was made.
Thus 506XXX was made in the 50th week of 2016. For more details see page 76.



Code 6616-01

Order Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Tests (# Reagents)	Reagent Refill Order Code	Shipping Code (Weight/Lbs)
CHLORINE DIO interferences.	XIDE The colorimetric kits us Chlorite up to 1,000 ppm and	e DPD to determine chlorine dioxide. Glycine is add chlorine up to 2 ppm will not interfere with the tes	led in the method to at strip determination	remove free chl ns.	orine
2999LR	Test Strip	0, 0.25, 0.50, 1.0, 3.0, 10 ppm	50	R-2999LR	NH (1)
3002	Test Strip	0, 10, 25, 50, 100, 250, 500 ppm	50	R-3002	NH (1)
3244 DC1500-CL0	Colorimeter	0-7 ppm/0.05 ppm ClO <sub>2</sub>	100 (2)	R-3244	NH [3]
CHROMATE D	phenylcarbazide reacts with o	chromate (hexavalent chromium) to form a red to	violet color in an acid	d solution.	
4430-01	Diphenylcarbazide Octa-Slide 2 Comparator	5, 10, 15, 20, 25, 30, 35, 40 ppm Na <sub>2</sub> CrO <sub>4</sub> (lower or higher ranges by dilution)	50 (1)	R- <b>4430-01</b>	R1 (1)
COLIFORM Se	e also Microbiological Testing	section pages 36-38.			
COLOR The co	olor of water is measured by c	omparing the water to platinum cobalt color stand	ards representing Al	PHA Standard Co	olor Units.
3528-01	LRC Comparator	0, 20, 50, 80, 110, 140, 170, 200 APHA color uni	its Unlimited (0)	R-3528-01	NH [2]
COPPER A yel Cuprizone.	low color is formed when cop	per reacts with diethyldithiocarbamate (DDC). A blu	ue color is formed wh	nen copper reac	ts with
3619	Cuprizone Color Chart	0.05, 0.10, 0.15, 0.20, 0.30, 0.50, 0.70, 1.0 ppm	Cu 50 (2)	R-3619	R1 (1)
3245, DC1500-CO	DDC Colorimeter	0–8 ppm/0.03 ppm Cu	100 (1)	R-3673-01	NH (7)
CYANIDE The red-blue color	cyanide is first reacted with a . The test is also applicable as	chlorine donor to form cyanogen chloride, which the a screening test for concentrations up to 250 ppn	hen reacts with pyric n.	dine-barbituric a	cid to form a
7387-02	Octa-Slide 2 Comparator	0.0, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40 ppm Free CN-	50 (5)	R-7387-02	R1 (3)
<b>DEHA</b> Diethyll	nydroxylamine reacts with ferr	ic iron to form ferrous iron, which is then measure	d by a standard iron	test.	
4790-01	Octa-Slide 2 Comparator	0.05, 0.1, 0.2, 0.4, 0.6, 0.8, 1.0, 1.5 ppm DEHA	100 (3)	R-4790-01	R1 (1)
	Anionic surfactants are extra or reagent is then used to det	cted with toluene and break up an ion pair, releasin termine the concentration.	ng bromphenol blue i	into a water laye	r.
4507-02	Dropper Pipet	1 drop = 1.0 ppm Detergent	60 at 5.0 ppm (3)	R-4507-02	R1 (2)
4515-01	Dropper Pipet	1 drop = 0.1 ppm Detergent	30 (4)	R-4515-01	LQ (2)

# Fluoride | Hardness



		Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Test (# Reagen		Shipping Code (Weight/Lbs)
	<b>FLUORIDE</b> A red concentration.	zirconium lake reacts with fl	uoride to form a colorless solution, whic	ch decreases the red co	llor of the solution in pr	roportion to
	3243 DC1500-FL	Colorimeter	0–2.0 ppm/0.03 ppm FI <sup>–</sup>	100 (2)	R-3243	LQ (7+5)
	FORMALDEHYDE complex form a v		ses a modified Schiff reaction in which a	an acidified pararosanil	ine and dichlorosulfitor	mercurate II
	6701-01		0.0, 0.5, 1.0, 2.0, 4.0, 6.0, 8.0, 10.0 ppm Formaldehyde	100 (3)	R-6701-01	LQ (2+5)
	GLUTARALDEHYD	E High concentrations are o	determined by a titration with sulfuric a	cid after reaction with s	ulfite.	
	7064-01	Direct Reading Titrator	1 mL = 250 ppm Glutaraldehyde	25 (5)	R-7064-01	R2 (3)
	inhibitors to elimi	nate metal interferences. All	lness determinations, with a red to blue I results are as CaCO <sub>3</sub> ; some kits also e) tor for Ca++. The -LI suffix indicates an	kpress results as gpg. T	he 3609, which is reco	mmended for
	3609-01	Fresh & Salt Water Calcium Hardness Direct Reading Titrator	0–200 ppm/4 ppm CaCO <sub>3</sub> 0–2,500 ppm by dilution	50 (3)	R-3609-01	R1 (1)
	4482-DR-LI-01	Total Hardness Direct Reading Titrator	0–200 ppm/4ppm CaCO <sub>3</sub> Liquid indicator	50 at 200 ppm (3)	R-4482-DR-LI-01	R1 (1)
	4482-LI-02	Total Hardness Dropper Bottle	1 drop = 10 ppm or 1 gpg CaCO <sub>3</sub> Liquid indicator	50 at 200 ppm or 20 gpg (3)	R-4482-LI-02	R1 (1)
	4482-DR-LT-01	Total Hardness Direct Reading Titrator	0–200 ppm/4 ppm CaCO <sub>3</sub> Tablet indicator	50 at 200 ppm (3)	R-4482-DR-LT-01	R1 (1)
	4824-LT-02	Calcium, Magnesium, Tota Hardness Dropper Bottle	al 1 drop = 10 ppm or 1 gpg CaCO <sub>3</sub> Tablet indicator	50 at 200 ppm or 20 gpg (5)	R-4824-LT-02	R1 (1)
	4824-DR-LT-01	Calcium, Magnesium, Tota Hardness Direct Reading Titrator	al 0–200 ppm/4 ppm CaCO <sub>3</sub> Tablet indicator	50 at 200 ppm (5)	R-4824-DR-LT-01	R1 (1)
Í	3037-DR-01	Low Range Total Hardness Direct Reading Titrator	s 0-10 ppm/0.2 ppm CaCO <sub>3</sub>	50 at 10 ppm (3)	R-3037-DR-01	R1 (1)
				Hardness continued i	next nage	

# Hardness | Iron

Hardness originally referred to the ability of water to lather with soap. The more calcium and magnesium ions present, the "harder" it was to produce a lather.



Code 4482-LI-02

Order Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Tests (# Reagents)	Reagent Refill Order Code	Shipping Code (Weight/Lbs)	
HARDNESS	Continued					
7171-02	Total Hardness Dropper Bottle	1 drop = 10, 25, or 50 ppm $CaCO_3$	100 (3)	R-7171-02	R1 (1)	
7246-02	Total Hardness Dropper Bottle	1 drop = 2, 5, or 10 ppm $CaCO_3$	100 (3)	R-7246-02	R1 (1)	
HYDROGEN standard thi	<b>PEROXIDE</b> Although peroxide osulfate solution. Both metho	may be tested colorimetrically with DPD, the ods are offered.	most common method i	is iodometric titrati	on using a	
7138-DB- 01	lodometric Dropper Bottle	$1 \text{ drop} = 5 \text{ ppm H}_2 \text{O}_2$	50 (4)	R- <b>7138-DB-01</b>	LQ (2)	
7150-01	lodometric Dropper Bottle	1 drop = $0.5\% \text{ H}_2\text{O}_2$	50 (4)	R- <b>7150-01</b>	LQ (2)	
2984LR	Test Strips	0, 1, 3, 10, 30, 50	25 (1)	R-2984LR-H	NH (1)	
IODINE As with many other oxidizers, iodine may be titrated with a standard thiosulfate solution, hence the name iodometric titration.						
7253-DR- 01	Direct Reading Titrator	0–50 ppm/1 ppm l₂	50 at 50 ppm (3)	R- <b>7253-DR-01</b>	R1 (1)	
7253-01	Dropper Pipet	1 drop = 2.5 ppm l <sub>2</sub>	100 at 25 ppm (3)	R- <b>7253-DR-01</b>	R1 (1)	
2948-BJ	Test Papers	12, 25, 50, 100 ppm $l_2$	200	R-2948-BJ	NH (1)	
IRON Bipyrio tested sepai	dyl is a ferrous iron indicator t rately by eliminating the reduc	hat tests total iron after any ferric iron is redu ction step. A similar ferrous indicator, 1,10 phe	ced to ferrous in the sar enanthroline, is used in t	mple. Ferrous and fo he DC1500 kit.	erric may be	
7787-01	Total Iron LRC Comparator	0.05, 0.10, 0.20, 0.30, 0.40, 0.60, 0.80, 1.0 pp	om Fe 30 (2)	R- <b>7787-01</b>	R1 (1)	
4447-01	Total Iron Octa-Slide	0.5, 1.0, 2.0, 3.0, 4.0, 6.0, 8.0, 10.0 ppm Fe	90 (2)	R-3318	R1 (1)	
3347-01	Ferrous/Ferric Iron Octa-Slide 2 Comparator	0.5, 1.0, 2.0, 3.0, 4.0, 6.0, 8.0, 10.0 ppm Fe	100 (3)	R-3347-01	R1 (1)	
3248 DC1500-FE	Total Iron 1, 10 Phenanthroline Colorimeter	0-4.0 ppm/0.25 ppm Fe	100 (2)	R- <b>3681-01</b>	R1 (1)	

Ship Codes: (NH) Non-Hazardous Material - No Fees · (R1) Small Qty. Hazardous Material - No Fees · (LQ, R2, R3) Hazardous Material - Air Fees Only · (HF) Hazardous Material - Air G Ground Fees \*(NPDWR) EPA Accepted · †(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

# Lead | Molybdate/Molybdenum



3588-02	PAN Octa-Slide 2 Comparator	0.05, 0.1, 0.2, 0.4, 0.6, 0.8, 1.0 ppm Mn	50 (4)	R-3588-02	LQ (2)
MICROBIOLOG	CICAL TESTING See section page	es 36-38.			
a pink color wi reads 0, 0.5, 1	th molybdate. Thioglycolate forr	olorimetric methods and one titration method avens a yellow color for low to high determinations. able in about 1 minute. The 3632 titration employalence.	The 3628 uses a n	ew test strip tech	nology that
3628-01	Test Strip	0, 0.5, 1.0, 2.0, 5.0 ppm	50 (1)	R-3628-01	R1 (1)
6628-01	Xanthate, Sodium Molybdate Octa-Slide 2 Comparator	1, 2, 3, 4, 5, 6, 8, 10 ppm Sodium Molybdate	100 (2)	R- <b>6628-01</b>	R1 (1)
3346-01	Thioglycolate, Molybdate Octa-Slide 2 Comparator	30, 60, 90, 120, 150, 180, 240, 300 ppm Molybdate	50 (2)	R- <b>3346-01</b>	NH (1)
3160-01	Thioglycolate, Molybdenum Octa-Slide 2 Comparator	2, 5, 8, 10, 12, 15, 18, 20 ppm Molybdenum	50 (3)	R-3160-01	R3 (2)
3632-01	Molybdenum Dropper Pipet	1 drop = 2 or 20 ppm Molybdenum	50 (3)	R-3632-01	LQ (2+5)
3246 DC1500-MO	Thioglycolate Colorimeter	0-30 ppm/0.1 ppm Molybdenum	50 (3)	R-3246	R3 (7)
		a le	1	9	(
De la	0	Contraction of the last of the	3,50		-

# Nitrate Nitrogen | Nitrite



Molybdenum x 1.6 = Molybdate Sodium Molybdate Dihydrate x 0.4 = Molybdenum Molybdate x 0.63 = Molybdenum

Code 6628-01

Or	der Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Tests (# Reagents)	Reagent Refill Oder Code	Shipping Code (Weight/Lbs)
be bo	elow use cadr oth nitrate an	mium except 3354-01, which d nitrite. The kit 3119-01 us	to nitrite by cadmium or zinc and this undergoes din In uses zinc and which also contains a reagent that on the sone comparator that contains both nitrate and p In age 17 for Total Nitrogen Digestion Tube Test.	eliminates nitritė ir	nterference. Kit 35	19-01 tests
31	119-01	Cadmium Reduction Nitrate/Phosphate LRC Comparator	0.2, 0.4, 0.6, 1.0 ppm NO <sub>3</sub> <sup>-</sup> -N; 0.2, 0.4, 0.6, 1.0 ppm PO <sub>4</sub> <sup>3-</sup>	Nitrate: 40 (2) Phosphate: 50 (2)	R-3119-01	R1 (2)
36	315-01	Cadmium Reduction, Nitrate/Nitrite LRC Comparator	0, 0.2, 0.4, 0.6, 0.8, 1.0 ppm NO <sub>3</sub> <sup>-</sup> -N	50 (2)	R-3615-01	R1 (2)
35	519-01	Cadmium Reduction Octa-Slide 2 Comparator	0.25, 0.5, 1.0, 2.0, 4.0, 6.0, 8.0, 10.0 ppm NO <sub>3</sub> <sup>-</sup> -N	40 (3)	R-3519-01	R1 (1)
33	354-01	Zinc Reduction Octa-Slide 2 Comparator	0.0, 1.0, 2.0, 4.0, 6.0, 8.0, 10.0, 15.0 ppm NO <sub>3</sub> <sup>-</sup> -N	50 (2)	R-3354-01	NH (2)
NI	TRITE NITRO	<b>GEN</b> As with nitrate, above, t	the diazotization/coupling reaction is used to form a	a pink color with ni	trite.	
33	352-01	Octa-Slide 2 Comparator	0.05, 0.10, 0.20, 0.30, 0.40, 0.50, 0.60, 0.80 ppm NO <sub>2</sub> N	50 (3)	R-3352-01	NH (2)
th:	e nitrite is ox	idized, the permanganate tu	using one of two methods. After acidifying the sam Irns the sample pink. Ceric Ammonium Nitrate [CAN ne CAN method is preferred if glycol is present.	ple, permanganato ) also oxidizes the	e will oxidize nitrito nitrite in the pres	e. When all of ence of ferroin
71	L01-DR-01	Permanganate Direct Reading Titrator	0-1000 ppm/20 ppm NaNO <sub>2</sub>	50 at 1000 ppm (2)	R-7101-DR-01	R1 (1)
71	LO1-01	Permanganate Dropper Pipet	1 drop = 50 or 100 ppm NaNO <sub>2</sub>	50 at 1000 or 2000 ppm (2)	R- <b>7101-01</b>	R1 (1)
30	)36-DR-02	CAN Direct Reading Titrator	0-1000 ppm/20 ppm NaNO <sub>2</sub>	50 at 1000 ppm (2)	R-3036-DR-02	R1 (1)
71	183-02	CAN Dropper Bottle	1 drop = 50 ppm NaNO <sub>2</sub>	50 at 1000 ppm (2)	R- <b>7183-02</b>	R1 (1)
	1	The second secon		ADDOC		

## Oxygen, Dissolved | pH



Shipping Code (Weight/Lbs) Test System # of Tests Reagent Refill Order Code (Detailed On Pages 6-7) Range/Sensitivity (# Reagents) Oder Code OXYGEN, DISSOLVED The azide modification of the Winkler method is a modified iodometric titration whereby oxygen, in the presence of a strong alkali, oxidizes manganese, which in turn reacts with iodide to form iodine. This is titrated with a standard thiosulfate solution in the presence of a starch indicator to enhance the endpoint. Azide eliminates nitrite interference. 5860-01  $0-10 \text{ ppm}/0.2 \text{ ppm } 0_2$ 50 at R-5860-01 R1 (2) All liquid reagents 10 ppm (5) Direct Reading Titrator OZONE DPD reacts with ozone, but any other oxidizers will interfere. The Indigo Trisulfonate method includes a step to eliminate chlorine interference, but bromine will interfere. It is preferred for the analysis of salt water samples. 3249  $0-0.4 \text{ ppm}/0.04 \text{ ppm } 0_3$ Indigo Trisulfonate 100 (3) R-3678-01 NH [7] DC1500-0Z Colorimeter PERACETIC ACID/HYDROGEN PEROXIDE This test is a combination of two separate titrations. The first is a cerium titration of peroxide. The second is an iodometric titration of peracetic acid. 7191-02 Dropper Bottle 1 drop = 50 ppm Peroxide 50 (5) R-7191-02 R1 [2] 1 drop = 6, 15 or 300 ppm Peracetic Acid PERACETIC ACID TEST STRIP 3000 Test Strips 0, 10, 20, 50, 85, 160 ppm 50 NH [1] 3000LR Test Strips 0, 5, 10, 20, 30, 50 ppm 50 NH (1) 3000HR 0, 50, 100, 250, 500, 1000 50 Test Strips NH (1) **pH TEST PAPERS** 1 Roll 2907 Test Papers 6.8-8.4 pH/0.4 pH NH (1) 2912 Test Papers 3.0-10.0 pH/1 pH 200 Strips NH [1] 2953 Test Papers 4.5-7.5 pH/0.5 pH 1 Roll NH (1) 2954 0-13 pH/1 pH 1 Roll Test Papers NH (1) 2956 Test Papers 1-11 pH/1 pH 1 Roll NH [1] 2959 Test Papers 8-12 pH/0.5 pH 2 Rolls NH (1) 3-2950 pH Indicator Sticks 0-14/1 pH100 Strips NH [1]

pH must be controlled and monitored because it plays an essential role in almost all chemical and biological processes.

pH indicators work in a specific range. Samples with a pH above the range of an indicator may match the highest standard on the comparator; samples below the range may match the lowest standard.



Code 5858-01

### LaMotte pH Test Kits

The "Precision Wide Range" pH kit includes the Octa-Slide comparator and reagents to provide 100 tests. Other pH test kits consist of an Octa-Slide Comparator, and a reagent for 50 tests. LaMotte Company has been supplying laboratory quality pH indicator tests to professional analysts for more than eighty years; these are the most reliable, economical pH test kits available. Simply fill the tube to the mark with the sample water, add several drops of indicator, and compare the resulting color against the eight permanent color standards in the comparator.

### How To Select The Right pH Kit:

#### Single or Wide Range?

Single range kits cover a range of 1.4 pH units in 0.2 unit increments (0.1 unit sensitivity). Wide range kits cover pH units in increments of 0.5.

#### Which Range?

Choose a kit in which the midpoint of the range covered is as close to the average or optimum pH value of the sample water. If this value is unknown, choose the Precision Wide Range Kit.

Indicators specific to a particular pH range allow colorimetric determination of pH. If the water to be tested is cloudy, one may wish to use a pH meter.



See Instrument Section, pages 24-32 for pH meters.

Order Code	pH Indicator					mparator ues In pH l				Reagent Refill Oder Code	Hazard (Shipping Weight/Lbs)
рН											
2109-01	Bromthymol Blue	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	R- <b>2109-01</b>	NH (1)
2110-01	Phenol Red	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	R-2110-01	NH [1]
2111-01	Cresol Red	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	R-2111-01	NH (1)
2112-01	Thymol Blue	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	R-2112-01	NH [1]
5858-01	Precision Wide Range	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	R-5858-01	D1 (1)
2020-01	Precision while Range	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	K-3030-UI	R1 (1)
3353-01	Precision Wide Range	5.0	6.0	6.5	7.0	7.5	8.0	9.0	10.0	R-3353-01	R1

# Phosphate | Polyquat



Order Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Test (# Reagen		Shipping Code (Weight/Lbs)	
PHOSPHATE T produce a blue	here are 3 colorimetric test color. In a third, phosphate	methods. In two, a phosphomolybdate compl forms a yellow complex with vanadomolybdat	ex is reduced by stanr e.	nous chloride or asc	orbic acid to	
3242 DC1500-PLR	Ascorbic Acid Colorimeter	0-3.0 ppm/0.07 ppm P0 <sub>4</sub> 3-	100 (2)	R-3242	R2 [7]	
3121-02	Ascorbic Acid LRC Comparator	0, 0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0 ppm PO <sub>4</sub> 3-	50 (2)	R-3121-02	R1 (1)	
3114-02	Ascorbic Acid Octa-Slide 2 Comparator	0.5, 1.0, 2.0, 3.0, 4.0, 6.0, 8.0, 10.0 ppm and 20.0, 30.0, 40.0, 60.0, 80.0, 100.0 ppm P0 <sub>4</sub> <sup>3</sup>		R-3114-02	R1 (1)	
4408-01	Stannous Chloride Octa-Slide 2 Comparator	Low: 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0 ppm High: 10, 20, 30, 40, 50, 60, 80, 100 ppm P0		R-4408-01	LQ [1]	
4401-02	Vanadate Molybdate Octa-Slide 2 Comparator	10, 20, 30, 40, 50, 60, 70, 80 ppm PO <sub>4</sub> 3-	50 (1)	R-4401-02	R1 (1)	
PHOSPHATE (TOTAL) Polyphosphates (acid-hydrolyzable or condensed) and phosphonates (organic phosphates) are reverted using the reagents and apparatus in the 7884 Auxiliary Phosphate kit. The polyphosphates require boiling or microwaving with acid and subsequent neutralization; the phosphonates require the same, but with the addition of an oxidizer in the boiling/microwaving step. Once reverted to orthophosphate, any of the tests in the orthophosphate section above may be used for analysis. See page 17 for Total Phosphorus Digestion Tube Tests.						
using the reage acid and subse microwaving st	ents and apparatus in the 78 equent neutralization; the ph tep. Once reverted to orthop	884 <sup>°</sup> Auxiliary Phosphate kit. The polyphosphat nosphonates require the same, but with the ac hosphate, any of the tests in the orthophosph	es require boiling or n Idition of an oxidizer i	nicrowaving with n the boiling/	HF [2]	
using the reage acid and subse microwaving st analysis. See p	ents and apparatus in the 76 equent neutralization; the ph tep. Once reverted to orthop age 17 for Total Phosphorus The Chromazurol S metho	884 <sup>°</sup> Auxiliary Phosphate kit. The polyphosphat nosphonates require the same, but with the ac hosphate, any of the tests in the orthophosph	es rèquire boiling or n ddition of an oxidizer in nate section above ma S), Belcor 575 (xo) and	nicrowaving with n the boiling/ y be used for d Belsperse 161 pho		
using the reage acid and subse microwaving st analysis. See p	ents and apparatus in the 76 equent neutralization; the ph tep. Once reverted to orthop age 17 for Total Phosphorus The Chromazurol S metho	384' Auxiliary Phosphate kit. The polyphosphat nosphonates require the same, but with the act hosphate, any of the tests in the orthophosphate Digestion Tube Tests.  Ind may be used for Dequest (xo), Bayhibit (CAS for very high alkalinity samples. It also include 0-20 ppm/0.4 ppm HEDP/PBTC	es rèquire boiling or n ddition of an oxidizer in nate section above ma S), Belcor 575 (xo) and	nicrowaving with n the boiling/ y be used for d Belsperse 161 pho		
using the reage acid and subse microwaving st analysis. See p. PHOSPHONATE [CAS]. An addit	ents and apparatus in the 76 equent neutralization; the ph tep. Once reverted to orthop age 17 for Total Phosphorus The Chromazurol S metho cional liquid acid is included to CAS	384' Auxiliary Phosphate kit. The polyphosphat nosphonates require the same, but with the act hosphate, any of the tests in the orthophosphate Digestion Tube Tests.  Ind may be used for Dequest (xo), Bayhibit (CAS for very high alkalinity samples. It also include 0-20 ppm/0.4 ppm HEDP/PBTC	es rèquire boiling or n ddition of an oxidizer in nate section above ma S), Belcor 575 (xo) and s a fluoride inhibitor n	nicrowaving with n the boiling/ y be used for d Belsperse 161 pho eagent.	osphonates	
using the reage acid and subse microwaving st analysis. See p. PHOSPHONATE [CAS]. An addit 7625-DR-01	ents and apparatus in the 78 equent neutralization; the phatep. Once reverted to orthop age 17 for Total Phosphorus  The Chromazurol S methodional liquid acid is included to CAS  Direct Reading Titrato  CAS	384'Auxiliary Phosphate kit. The polyphosphatosphonates require the same, but with the achosphate, any of the tests in the orthophosphis Digestion Tube Tests.  Indicate the defense of the tests in the orthophosphis Digestion Tube Tests.  Indicate the defense of the tests in the orthophosphis Digestion Tube Tests.  Indicate the defense of the test of th	es rèquire boiling or n ddition of an oxidizer in nate section above ma S), Belcor 575 (xo) and s a fluoride inhibitor n 50 at 20 ppm (5)	nicrowaving with n the boiling/ y be used for d Belsperse 161 pho eagent. R-7625-DR-01	osphonates R1 (1)	
using the reage acid and subse microwaving st analysis. See p. PHOSPHONATE [CAS]. An addit 7625-DR-01	ents and apparatus in the 76 equent neutralization; the phatep. Once reverted to orthop age 17 for Total Phosphorus  The Chromazurol S methodional liquid acid is included to CAS Direct Reading Titrato  CAS Dropper Pipet  XO	384'Auxiliary Phosphate kit. The polyphosphatosphonates require the same, but with the achosphate, any of the tests in the orthophosphis Digestion Tube Tests.  Indicate the defense of the tests in the orthophosphis Digestion Tube Tests.  Indicate the defense of the tests in the orthophosphis Digestion Tube Tests.  Indicate the defense of the test of th	tes rèquire boiling or n ddition of an oxidizer in nate section above ma S), Belcor 575 (xo) and s a fluoride inhibitor ro 50 at 20 ppm (5)	nicrowaving with the boiling/ y be used for d Belsperse 161 pho eagent. R-7625-DR-01	osphonates R1 (1) R1 (1)	
using the reage acid and subse microwaving st analysis. See p. PHOSPHONATE [CAS]. An addit 7625-DR-01 7530-DR-01 7530-WT-01 POLYQUAT The	ents and apparatus in the 76 equent neutralization; the photon once reverted to orthop age 17 for Total Phosphorus  E. The Chromazurol S methodional liquid acid is included to CAS Direct Reading Titrato  CAS Dropper Pipet  XO Direct Reading Titrato  XO Direct Reading Titrato  XO Dropper Bottle	384'Auxiliary Phosphate kit. The polyphosphate osphonates require the same, but with the achosphate, any of the tests in the orthophosphes Digestion Tube Tests.  Indicate the defense of the desired for the orthophosphes Digestion Tube Tests.  Indicate the Orthophosphes Digestion Tube Tests.  Ind	tes require boiling or not dition of an oxidizer in attestion above mass, Belcor 575 (xo) and selection above mass a fluoride inhibitor response to at 20 ppm (5)  50 at 20 ppm (5)  50 at 20 ppm (5)  50 at 20 ppm (5)	nicrowaving with the boiling/ y be used for disperse 161 phoeagent.  R-7625-DR-01  R-7625-01  R-7530-DR-01  R-7530-WT-01	R1 (1) R1 (1) R1 (2) R1 (2)	

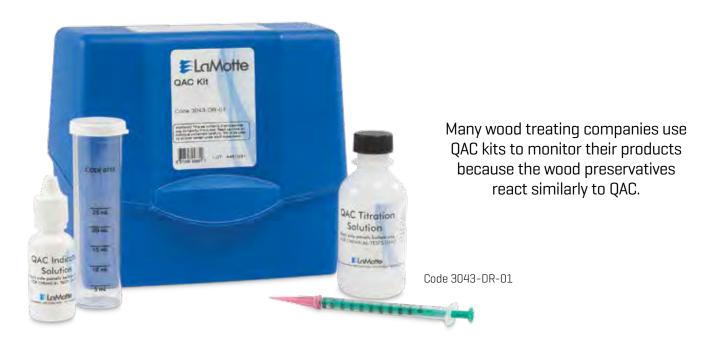
# Potassium | Sulfate



Code 7625-01

Order Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Tests (# Reagents)	Reagent Refill Oder Code	Shipping Code (Weight/Lbs)		
<b>POTASSIUM</b> Sodium tetraphenylboron reacts with potassium to form a white precipitate. The turbidity of the solution is proportional to potassium concentration which is measured in a calibrated tube.							
3138-01	Turbidity Reading Tube	e 6, 8, 10, 20, 30, 40, 50 ppm K+	100 (2)	R-3138-01	R1 (1)		
added to comp	nods are available. A masked plex the QAC and the color ch or polyquat, is used for low to	bromphenol blue indicator is added to the sar anges to red. This method is best suited to his high concentrations.	mple and turns green. S gher QAC concentration	odium tetrapher s. A poly-electrol	ıyl-boron is ytic titration, like		
3043-DR-01	BPB Direct Reading Titrator	0–500 ppm/10 ppm Alkyl dimethyl benzyl ammonium chloride	50 at 500 ppm (2)	R-3043- DR-01	NH (1)		
3042-01	BPB Direct Reading Titrator	0-1,000 ppm/20 ppm 0-5,000 ppm/100 ppm with dilution	50 at 1,000 ppm (2)	R- <b>3042-01</b>	NH (1)		
7057-01	Polyelectrolytic Dropper Bottle	1 drop = 2, 5, or 10 ppm Alkyl dimethyl benzyl ammonium chloride	100+ [5]	R- <b>7057-01</b>	R1 (2)		
2951	Test Papers	50, 100, 200, 400 ppm	100	_	NH (1)		
2951HR	Test Strips	200, 400, 600, 1000, 1500 ppm	50	_	NH (1)		
<b>SALINITY</b> Salir concentration.		ation of chloride. An argentometric titration w	ith silver nitrate is used	to determine the	e chloride		
7459-02	Direct Reading Titrator	0-40 ppt/0.4 ppt Salinity	50 at 20 ppt (2)	R- <b>7459-02</b>	R1 (1)		
SILICA The het ppm.	teropoly blue method tests fo	or "molybdate-reactive" silica. The 4463 uses	a 1:10 dilution to expan	d the range of th	ne kit to 100		
4463-01	Octa-Slide 2 Comparator	0.5, 1.0, 2.0, 3.0, 4.0, 6.0, 8.0, 10.0 ppm or 5, 10, 20, 30, 40, 60, 80, 100 ppm SiO <sub>2</sub>	50 (4)	R-4463-01	R1 (1)		
SODIUM NITRI	TE (See Nitrite, Sodium)						
SULFATE Bariu	um forms a precipitate with s	sulfate. The turbidity formed is measured using	g comparator standards	s or a meter.			
7778-01	Tablet Octa-Slide 2 Comparator	20, 40, 60, 80, 100, 120, 160, 200 ppm SO <sub>4</sub> <sup>2</sup>	- 50 (1)	R- <b>7778-01</b>	R1 (1)		
3247 DC1500-SU	Colorimeter	0–100 ppm/1.0 ppm SO <sub>4</sub> <sup>2–</sup>	100 (1)	R- <b>3247</b>	R1 (6)		
		THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN	The state of the s				

# Sulfide | Zinc



Order Code	Test System (Detailed On Pages 6-7)	Range/Sensitivity	# of Tests (# Reagents)	Reagent Refill Oder Code	Shipping Code (Weight/Lbs)	
Total, dissolve an unreacted	d and hydrogen sulfide can b sample until it matches a rea	ylene blue method for analysis. The colorimetric be separated in the titration test. The total sulfide acted sample. The same procedure is used for di ined by measuring pH and multiplying the dissol	e is determined using ssolved sulfide, after	g a color dye whic r insoluble matter	h is added to is removed by	
4456-01	Total Sulfide Octa-Slide 2 Comparator	0.2, 0.5, 1.0, 2.0, 5.0, 10.0, 15.0, 20.0 ppm S <sup>2-</sup>	50 (3)	R-4456-01	R1 (1)	
4630†*	Total, Dissolved & Hydrogen Sulfide Dropper Pipet	1 drop = 1.0 or 0.1 ppm $S^{2-}$ or $H_2S$	70 at 10 ppm (8)	R-4 <b>630</b> †*	LQ (10)	
SULFITE An iodide-iodate titrant oxidizes sulfite to sulfate under acid conditions, until all of the sulfite is reacted. The titrant then reacts with starch to form a blue color signifying the endpoint.						
7175-DR-01	Direct Reading Titrator	0-100 ppm/2 ppm SO <sub>3</sub> <sup>2-</sup>	50 at 100 ppm (3)	R-7175- DR-01	R1 (1)	
7175-01	Dropper Pipet	1 drop = 5 ppm $SO_3^{2-}$	50 at 100 ppm (3)	R- <b>7175-01</b>	R1 (1)	
7132-01	Dropper Bottle	1 drop = 2, 5, or 10 ppm $SO_3^{2-}$	100+ (3)	R- <b>7132-01</b>	R1 (1)	
TANNIN/LIGNI	N Tungstophosphoric and m	olybdophosphoric acids are reduced by tannins	and lignins to form a	a blue color.		
7831-01	Octa-Slide 2 Comparator	1, 2, 3, 4, 5, 6, 8, 10 ppm Tannin or lignin like substances	50 (2)	R- <b>7831-01</b>	R1 (1)	
TOLCIDE PS BI (THPS). The io	<b>OCIDE</b> This kit was develope dometric titration may be us	ed in cooperation with Solvay, for the determinati sed for fresh or salt water in oilfields, towers, pulp	on of tetrakishydrox and paper, etc.	y-methyl phosph	onium sulfate	
4-8776-01	Direct Reading Titrator	0-100/2 ppm THPS	60 (5)	R- <b>4-8776-01</b>	NH (1)	
TURBIDITY Te	sting for turbidity in regulate	ed water systems is a critical step in assuring co	mpliance and treatm	nent efficacy.		
See page 12-1	15 for instumentaion.					
ZINC In a solu	tion buffered to pH 9, zincon	reacts with zinc to form a blue color.				
7391-02	Octa-Slide 2 Comparator	0, 1, 2, 3, 4, 6, 8, 10 ppm Zn	50 (2)	R- <b>7391-02</b>	NH (1)	
7417-02	Octa-Slide 2 Comparator	0, 0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4 ppm Zn	50 (2)	R- <b>7417-02</b>	NH (1)	

## Aquaculture & Aquarium Water

# Fish Farms, Hatcheries, Research, Hobbyists, Retailers, Ornamental Fish Culturists...

#### Fresh Water Outfit

#### Model AQ-2, Order Code 3633-05 (Ship Code LQ; 16 lbs.) Reagent Refill, Order Code R-3633-05 (Ship Code LQ)

A complete outfit for pond fish culture, ideal for fresh water analysis. Nine critical test factors can be determined on-site, efficiently and accurately. Designed with field analysis as a priority; all reagents, components, and accessories are arranged in pre-drilled foam. Short form instructions are provided in a handy adhesive lid label for easy access. Long form instruction booklet provides detailed instructions and test kit diagram. Unit is supplied complete with labware, accessories, sampling bottle, and reagents.



Factor	Method	Range (# of Tests)
Ammonia Nitrogen	Salicylate	0.05-2.0 ppm (50)
Nitrite Nitrogen	Diazotization/Coupling	0.05-0.8 ppm (50)
рН	Wide Range	5.0-10.0 (50)

Factor	Method	Range (# Tests)
Alkalinity, Total	Neutralization	0-200 ppm (50)
Carbon Dioxide	Neutralization	0-50 ppm (50)
Chloride	Argentometric	0-200 ppm (50)
Dissolved Oxygen	Azide Modification of Winkler Method	0-10 ppm (50)
Hardness (Total)	Complexometric	0-200 ppm (50)

#### Temperature



#### Salt Water Outfit

#### Model AQ-4, Order Code 3635-05 (Ship Code LQ; 16 lbs.) Reagent Refill, Order Code R-3635-04 (Ship Code LQ)

Provides equipment to monitor nine parameters most critical for the salt water aquaculturalist. Reagents, labware, and accessories are mounted in foam for convenient test selection and portability. Short form lid label instructions are always available for quick reference, and a long form booklet provides detailed instructions with kit diagram. Unit is supplied complete with labware, accessories, sampling bottles, and reagents.

Factor	Method	Range (# of Tests)
Alkalinity*	Neutralization	0-200 ppm (50)
Carbon Dioxide	Neutralization	0-50 ppm (50)
Dissolved Oxygen	Azide Modification of Winkler Method	0-10 ppm (50)
Salinity	Argentometric	0-20 ppt (50)

<sup>\*</sup>Often referred to as carbonate hardness in aquarium industry.

Factor	Method	Range (# of Tests)
Ammonia Nitrogen	Salicylate	0.05-2.0 ppm (50)
Nitrate Nitrogen	Cadmium Reduction	0.25-10.0 pm (40)
Nitrite Nitrogen	Diazotization/Coupling	0.05-0.8 ppm (50)
рН	Wide Range	5.0-10.0 (50)

Factor	Range	Sensitivity	
Armored Thermometer	-5° to 45°C	0.5°C	



## Elementary, Secondary, Vocational, Outdoor, & College Science

## Water Quality Educator Monitoring Outfit

#### Order Code 5870-01 (Ship Code R1; 14 lbs.)

Always the first kit recommended for beginning a water quality monitoring study. The Water Quality Educator and Monitoring Outfit provides kits for seven basic water quality test factors and exceptional support material, all housed in a rugged field carrying case.

The Monitor's Handbook, a 71-page reference guide, includes all the information needed to set up a water quality monitoring program. The handbook covers test procedures and means to interpret results.

The Water Quality Educator CD-ROM, now for PC and Macintosh computers, incorporates Quick Time<sup>TM</sup> animations, still photos, written and audio information to provide step-by-step instructions for the tests included. Students receive both visual and verbal instructions and can repeat material as often as necessary. This effective "pre-lab" activity helps prepare students for water quality testing in the field or in the classroom.

The CD also provides benchmark data for each test factor for comparison of results obtained using LaMotte test kits in the field. Students enter their results and receive information on what type of water quality is indicated by their data as well as typical causes and effects of higher and lower levels.



Factor	Range (# Tests)
рН	pH 3.0-10.5 (100)
Nitrate-Nitrogen	0-15 ppm (50)
Phosphate	0-2.0 ppm (50)
Dissolved Oxygen	0-10.0 ppm (50)
Alkalinity, Total	0-200 ppm (50)
Turbidity	0-200 JTU (50)
Temperature	-5° to 45°C

## Leaf Pack Experiments Stream Ecology Kit

Order Code 5882 (Ship Code NH; 10 lbs.)



Students performing the Leaf Pack Experiments learn to design, implement, and analyze a scientific investigation by discovering how **aquatic macroinvertebrates** indicate the overall health of a stream ecosystem. The Leaf Pack Experiments Kit is totally reusable and flexible. Adaptable to varying time constraints, number of students, and grade levels, it is geographically friendly and complete. All the apparatus and guides necessary for collecting, sorting and identifying are included. The kit includes a comprehensive Instructor's Manual – featuring background material on stream ecology, a glossary, diagramed instructions, experiment ideas, and full color macroinvertebrate flash cards. *Developed by the Stroud Water Research Center in cooperation with LaMotte Company.* 



Ship Codes: [NH] Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Only · [HF] Hazardous Material - Air & Ground Fees \* (NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## Elementary, Secondary, Vocational, Outdoor & College Science



### **Plankton Net**

15" (38.1 cm) tall, 5" (12.7 cm) dia. mouth

Order Code 1063; (2 lbs.)

Cone-shaped net of 10 mesh, 153 micron nylon cloth. Minute plankton are collected and can be observed in the removable, clear conical graduated tube. Two tubes provided. Net mouth is braced by a sturdy stainless steel ring and harness.





Code 5902-02 (Ship Code R1; 13 lbs.)

Reagent Refill Code R-5902-01 (Ship Code R1; 4 lbs.)

A popular outfit for the testing and study of freshwater systems such as ponds, lakes, wetlands, rivers, streams, etc. This field-friendly outfit contains individual test modules, water sampling bottles, three supplemental handbooks, and data sheets.

#### **Comparator Tests**

Factor	Range (# Tests)
Nitrate- Nitrogen	0.2-1.0 ppm (40)
Phosphate	0.2-1.0 ppm (50)
рН	3.0-10.0 pH (50)
Silica	0.5-10 ppm (50)

#### **Direct Reading Titrator Tests**

Factor	Range (# Tests)
Carbon Dioxide	0-50 ppm (50)
Dissolved Oxygen	0-10 ppm (50)
Hardness	0-200 ppm (50)

#### Kick-Net

Kick-Net, complete with poles

Order Code 0021-P (8 lbs.) Kick-Net only Order Code 0021 (4 lbs.)

This 1x1 meter square, 500 micron, tan mesh net is designed to meet the requirements of groups performing US EPA Rapid Bioassessment Protocols for benthic invertebrates.



### Secchi Disk

Disk with black & white quadrants & calibrated line

Order Code 0171-CL (3 lbs.)

Weighted 20 cm diameter disk has a braided stretch-resistant line marked every half meter and at every meter up to 20 meters.



#### Marine Science Outfit

Code 5903-03 (Ship Code R1; 13 lbs.)

Reagent Refill Code R-5903-02 (Ship Code R1; 4 lbs)

For testing and study of saline systems – oceans, bays, salt marshes, etc. Includes the *Lab Manual for Marine Science, Investigating Water Problems* and data sheets.

#### **Colorimetric Tests**

Factor	Range (# Tests)
рН	3-10 (50)
рН	7.7-8.4 (50)

#### **Titration Tests**

Factor	Range (# Tests)
Dissolved Oxygen	0-10.0 ppm (50)
Hardness	0-200 ppm (50)
Carbon Dioxide	0-50 ppm (50)
Alkalinity	0-200 ppm (50)
Salinity	0-20 ppm (50)

Ship Codes: (NH) Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Only · [HF] Hazardous Material - Air & Ground Fees \*(NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## Elementary, Secondary, Vocational, Outdoor, & College Science

#### The Tour Series

Each Tour is a complete, hands-on, science curriculum with safe, simple TesTabs® tablet tests. Each Tour includes lecture materials, illustrated handouts, teacher tips, test procedures, TesTab reagents, data sheets, and games to reinforce key concepts. The Tour Series is designed for grades 4 through 8 environmental science education. The Goal of the Tour series is for students to discover, examine, measure, and compare physical and chemical properties. Students learn basic analytical methods while performing a scientific investigation.



### **Shore Tour**

Shore Tour, Order Code 5939 (Ship Code NH; 5 lbs.)
Reagent Refill, Order Code R-5939 (Ship Code NH; 1 lb.)

Five units teach students through classroom lectures and activities how their everyday actions affect the ocean. Topics include an introduction to coastal ecosystems, oil spills, shoreline development and marine debris. Includes teacher tested activities from EPA, NOAA, and The Marine Mammal Center, links to activities and information from ocean experts, CD with printable handouts, data sheets, and more. Materials for 40 students working in groups.

### **Watershed Tour**

Watershed Tour, Order Code 5419 (Ship Code NH; 4 lbs.) Reagent Refill, Order Code R-5419 (Ship Code NH; 1 lb.)

A classroom-based tour of a virtual watershed, designed for teachers who are unable to visit a stream with their students. Students will "test" four stations along a river continuum to study how the river changes and how human activities can influence water quality. Developed by the Stroud Water Research Center in cooperation with LaMotte Company. Materials for 30 students working in groups.



## **Topsoil Tour**

Topsoil Tour, Order Code5425-01 (Ship Code NH; 4 lbs.) Reagent Refill, Order Code R-5425-01 (Ship Code NH; 1 lb.)

Investigate the physical and chemical properties of soil. Each student on the Topsoil Tour completes seven units while conducting his/her own soil tests for soil texture, pH, nitrogen, phosphorus, and potassium. Tablets and sample test bags for 50 students.



#### **Pondwater Tour**

Pondwater Tour, Order Code 5418 (Ship Code R1; 4 lbs.) Reagent Refill, Order Code R-5418 (Ship Code R1; 1 lb.)

A great introduction to the study and measurement of changes in the water quality of a lake, stream, pond, aquarium, or even a fish bowl. Tests are included for pH, dissolved oxygen, nitrate, and ammonia. Students test variables and investigate natural processes that create changes in water quality. Tablets and sample test bags for 50 students.



Tapwater Tour, Order Code 3608 (Ship Code NH; 4 lbs.) Regent Refill, Order Code R-3608 (Ship Code NH; 1 lb.)

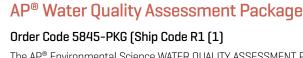
An exciting investigation of water quality examining the chemical properties of water directly from the tap. Students learn the relationships between good and poor water quality while examining the pH, chlorine, hardness, copper, and iron of tapwater from their homes. Tablets and sample test bags for 50 students. Ideal for educational outreach for public health/utilities.

### Call for our Environmental Science Education Products Catalog



Ship Codes: [NH] Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Only · [HF] Hazardous Material - Air & Ground Fees \*(NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## Elementary, Secondary, Vocational, Outdoor & College Science



The AP® Environmental Science WATER QUALITY ASSESSMENT PACKAGE is an extensive curriculum that uses the exploration of the Water Quality Index to teach students STEM-based skills that they will apply through classroom and field activities to satisfy Section VI [Water Pollution] of the AP® Environmental Topics Outline.

In a culminating field activity, students utilize appropriate techniques and instrumentation to identify their watershed and perform chemical and biological analyses to determine the water quality index of a local waterway.

The following environmental concepts are covered: watersheds, Water Quality Index, physical, chemical and biological water quality parameters, nutrient loading, hydrological variables, watershed ecology, remediation measures, and point, non-point pollution sources.

In four classroom activities, students use actual data from the Kansas River watershed to:

- Perform independent research
- Analyze data
- Create spreadsheets
- Calculate the water quality index
- Generate graphs
- Collect data
- Perform statistical analysis
- Access real-time hydrological data
- Locate local watersheds
- Observe environmental systems
- Communicate accurately

#### The Teacher Resource CD-ROM (included with the Water Quality Index Module) contains:

- Teacher/Student guide
- Water Quality Test Procedures
- STEM Extension Activities
- Chemical Reactions
- Data Spreadsheets
- Glossary
- Graphics Files
- PowerPoint Presentations and Quick Time iPad/iPod Videos

Also includes a **Free LaMotte BioPaddle Colony Identification App** which lets users capture the Bio-Paddle image to compare the "unknown" microbe growth on the BioPaddle to a library of photos of "known" microbe colonies.

## Water Quality Assessment Curriculum Module, Code 5845 [sold separately]

- Nutrient TTC/MacConkey BioPaddles (Code 5553) for coliform testing
- Salt/TDS/Temp Tracer (Code 1749) for temperature and TDS determination
- Teacher Resource CD-ROM

#### Water Quality Educator, Code 5870-01 (See page 57)

- Thermometer, Armored, Code 1066
- Dissolved Oxygen Kit, Code 5860-01
- pH Kit, Code 5858-01
- Nitrate-Nitrogen Kit, Code 3354-01
- Phosphate Kit, Code 3121-02
- Turbidity Kit, Code 7519-01
- Alkalinity Kit Code 4491-DR-01

## Earth Force Low-Cost Water Monitoring Kit

#### Order Code 3-5886 (Ship Code NH; 1 lb.)

A popular, economical tool for learning the basics of water quality. Students will have fun analyzing sample water for pH, Dissolved Oxygen, Biochemical Oxygen Demand, Temperature, Turbidity, Nitrate, Phosphate, and Coliform Bacteria. Includes a manual with step-by-step diagramed instructions and easy-to-use laminated color chart. All the necessary apparatus and non-hazardous TesTabs to test ten water samples [three samples for Coliform]. Ideal for educational outreach.





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## Dairy Producers, Food Processors, Commercial Launderers

### **Food Sanitizer Kits**

For Caustic Soda

Model TK-10, Order Code 8225-01 (Ship Code R2; 2 lbs.) Reagent Refill, Order Code 8228-H (Ship Code R2; 2 lbs.)

This simple, single-reagent dropper pipet kit measures caustic soda for cleaning dairy bottles, cans, storage tanks, etc. Reagents for 50 tests. Kit uses neutralization test method. Dilution step permits measurement of two ranges:

- 0.25%/drop caustic soda by weight
- 0.01%/drop sodium oxide

#### Also Available...

Factor	Order Code	Method	Range [# Test]	Ship Codes
Chlorine	4497-01	lodometric	10 ppm/drop (50)	R2
Chlorinated Cleaner	8226-01	Neutralization	0.01% NaOH/drop (50)	R2





## Standard pH Test Papers

Order Code	pH Range	Order C
2907	6.8-8.4	2954
2912	3.0-10.0	2956
3-2950	0-14	2959
2953	4.5-7.5	

Order Code	pH Range
2954	0-13
2956	1-11
2959	8-12



## Sanitizer Test Papers and Strips

Chemically treated paper strips change to indicate sanitizer level. Strips and color chart are packaged in a waterproof plastic vial. 2951 is specifically formulated to read all types of QAC.

## **Test Papers**

Factor	Code (Qty.)	Range
Chlorine	4250-BJ (200)	10, 50, 100, 200 ppm
lodine	2948-BJ (200)	12, 25, 50, 100 ppm
QAC	2951 (100)	50, 100, 200, 400 ppm
High Range QAC	2951HR (50)	200, 400, 600, 1000, 1500 ppm

# Look for additional chlorine, iodine, & QAC kits in the Individual Test Kit section

## **Test Strips**

Factor	Code (Qty.)	Range
Peracetic Acid	3000 (50)	0, 10, 20, 40, 60, 85, 160
Peracetic Acid, Low Range	3000LR (50)	0, 5, 10, 20, 30, 50
Peracetic Acid, High Range	3000HR (50)	0, 50, 100, 250, 500, 1000
QAC	3072-J (100)	0, 100, 200, 300, 400, 500 ppm
High Range Chlorine	3031 (50)	0, 50, 100, 250, 500, 800 ppm
Dual Range QAC	2934 (50)	LR: 0, 10, 20, 40, 80 ppm HR: 0, 100, 200, 400, 800 ppm



# Food/Laundry

## Dairy Producers, Food Processors, Commercial Launderers



## **Laundry Outfit**

For control of water supplies, cleaning operations, and rinses

#### Model LDR, Order Code 3095-02 (Shipping Code LQ)

Seven important factors for monitoring incoming water supplies, break, suds and bleach operations; also rinse and sour operations. The pH [alkaline] test uses a LaMotte Octet Comparator. The alkalinity tests, chlorine bleach and hardness test utilize dropper pipet test methods. Reagents are supplied for 50 tests of each factor.

Factor	Range	Application
pH (Alkaline)	pH 10.0-11.4	Break-suds-bleach solutions
pH (Sour)	pH 1.5-8.5	Sour rinse solutions
Alkalinity (Suds)	100 ppm/drop	Free/total alkalinity in break-suds-bleach solutions
Alkalinity (Rinse)	10 ppm/drop	Total alkalinity in rinses

Factor	Range	Application
Chlorine Bleach	0.5%/drop	Available chlorine in bleach solutions
Hardness	10 ppm or 1 gpg/drop	Water Supply
Turbidity	Yes/No (Soil)	Presence of soil in solution

### Also Available...

Code	Description	Ship Codes
7250-02	P Alkalinity 1 drop = 10 ppm or 100 ppm Total Hardness 1 drop = 1 gpg Chlorine Strips 10, 50, 100, 200 ppm	R2
7196-01	Chlorine 1 drop = 10 ppm Oxygenated Bleach 1 drop = 10 ppm	R2
3541-01	Spot test for presence/absence of Chlorine and Iron. Wide Range pH	R1
7894-01	High Range–1 dr = 0.5% Cl <sub>2</sub> Mid Range–1 dr = 0.05% Cl <sub>2</sub> Low Range–1 dr = 0.005% Cl <sub>2</sub>	R1





Ship Codes: [NH] Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Only · [HF] Hazardous Material - Air & Ground Fees \* [NPDWR] EPA Accepted · 1 [NPDES] EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## General Water Analysis

## Laboratories, Government Agencies

## **SMART Water Analysis Laboratory**

MODEL SCL-05, Order Code 1951-03 (Shipping Code LQ; 37 lbs.)
Reagent Refill, Order Code R-1951-03 (Shipping Code LQ; 10 lbs.)

This portable lab measures 24 water quality parameters for pollution detection, environmental studies, and industrial water and wastes. The SMART3 digital colorimeter analyzes test sample color reactions and provides direct readouts for 15 factors. Titration tests performed with LaMotte's Direct Reading Titrators provide results directly in ppm for 6 additional factors. Digital meters measure pH and conductivity.

See specifications on next page.



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# General Water Analysis

## Laboratories, Government Agencies

#### **Colorimeter Tests**

Factor	Method	Range (# Test)
Ammonia	Nesslerization	0-4.0 ppm (50)
Chlorine	DPD	0-4.0 ppm (100)
Bromine	DPD	0-9 ppm (100)
lodine	DPD	0-16 ppm (100)
Chromium (Hexavalent)	Diphenylcarbazide	0-1.0 ppm (100)
Copper	Diethyldithiocarbamate	0-6.0 ppm (100)
Fluoride	SPADNS	0-2.0 ppm (50)
Iron	Bipyridyl	0-6.0 ppm (50)
Nitrate	Cadmium Reduction	0-3.0 ppm (20)
Nitrite	Diazotization/Coupling	0-0.8 ppm (20)
Phosphate	Ascorbic Acid Reduction	0-3.0 ppm (50)
Silica	Heteropoly Blue	0-4.0 ppm (50)
Sulfate	Barium Chloride	0-100 ppm (50)
Sulfide	Methylene Blue	0-1.5 ppm (50)
Turbidity	Absorption (No Reagents)	0-400 NTU (∞)

#### **Titration Tests**

Factor	Method	Range (# Test)
Alkalinity	Neutralization	0–200 ppm (50 at 200 ppm)
Carbon Dioxide	Neutralization	0–50 ppm (50 at 50 ppm)
Chloride/Salinity	Argentometric	0-200 ppm 50 at 200 ppm)
Dissolved Oxygen	Azide Modification of Winkler Method	0-10 ppm (50 at 10 ppm)
Hardness (Calcium, Magnesium, & Total)	Complexometric	0–200 ppm (50 at 200 ppm)

#### pH/Conductivity Instruments

Factor	Code	Model	Range # Test)
рН	5-0034-01	pH5	pH 0-14
Conductivity	5-0038-02	CON5	0.0-19.99 mS

## Also Available...



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## Water Treatment Companies, Engineers, Consultants

#### **Combination Buret Outfits**

In addition to our other standard products, LaMotte also packages combination buret style outfits. These outfits are packaged in cases made of rugged ABS plastic in sizes to fit three to five burets and accessories. The automatic burets and accessories are mounted in plastic clips over a white plastic workshelf in one half of the cabinet. The other half of the case is equipped with foam-lined shelves to hold additional tests or accessories. Colorimetric and titrimetric tests may be added to the buret titrations.

To order, simply choose the desired test reagents from the list on page 66 and select any additional tests from the A - Z section (pages 41-55) or the instrumentation section (pages 8-35). Squeeze valve (pinchcock) style burets are standard equipment with these kits, but glass or Teflon® stopcock burets may be ordered for an additional charge.



### Model AB-152

### Order Code 7643-01 (Ship Code LQ)

Factor	Method	Equivalence (# Tests)
рН	Alkaline Wide Range	pH 8.5-12 (50+)
Phosphate	Stannous Chloride	0-10 / 0-100 ppm (50+)

Factor	Method	Equivalence (# Tests)
Alkalinity	Neutralization	1 mL = 1.0 mg (50+)
Chloride	Argentometric	1  mL = 0.5  mg  (50+)
Hardness	Complexometric	1 mL =6 0.25 mg (50+)
Sulfite	lodometric	1  mL = 1.0  mg (50+)

## **Industrial Water**

## Water Treatment Companies, Engineers, Consultants

## **Industrial Titration Reagents**

Factor	Order Code	Reagent
Alkalinity	2246	Phenolphthalein
	2786	Total Alkalinity Indicator
	6068	Sulfuric Acid, 0.02N
	6111	Sulfuric Acid, 0.1N
Chloride	4069	Chromate Indicator, 5%
	8848	Silver Nitrate, 0.0282N
	6346	Silver Nitrate, 0.0141N
	6168	Silver Nitrate, 0.0171N
Hardness	4259	Ca Buffer (w/ metal inhibitors)
	T-5250	Ca Indicator Tablets
	4483	Total Buffer (w/ inhibitor)
	4484	Total Indicator Tablets
	6261	EDTA, 0.01M
Sulfite	6385	Starch Acid Indicator Powder
	7329	lodide lodate, N/40
	6106	lodide lodate, N/80
	4556	lodide lodate, N/63
	8667	lodide lodate, N/126

Dependable LaMotte reagents are available in a wide variety of sizes. Call Customer Service for assistance.











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## Professionals, Public Operators, Private Owners



#### Reliable Results

- Virtually eliminates User-Error
- Pre-Measured Reagents and Pre-Measured Sample\*
- Exact Reaction Time and Auto-Blanking
- Meter Calibration Check System
- New 6-Wavelength Photometer

#### Super Fast & Simple

- 30 Seconds for 3-Test Disk, 60 Seconds for 10-Test Disk
- Fill Disk and Insert > Tap "Start Test" > Read Results

#### **Auto-Record Keeping**

- Stores Test Dates, Times, Results
- Upload to Cloud, Download to Computer

#### Stand-Alone or Cloud Ready!

- No Computer, Smartphone, or Tablet Needed
- Touchscreen Operation
- Communicates through Bluetooth® or USB

#### New 3-Use Disk Cuts Costs

- New 3-Use Disk for Free Chlorine, Total Chlorine (Bromine), Combined Chlorine, and pH—Results in 30 Seconds!
- Meter knows which Test Section is New Test
- Also runs 10-Test Disks for Full Test Battery—Results in 60 Seconds!

#### Rugged and Portable

- Innovative Water-Resistant Housing Design
- Internal. Rechargeable Batteries
- Optional Heavy-Duty, Waterproof Carrying Case

#### **Advanced Cloud Software**

- Android and iPhone WaterLink® Connect Apps enable Live Connections to DataMate® Web Cloud Software
- DataMate® Web Software offers Treatment Recommendations, Test Result Collection, Service Scheduling, E-Door Hanger Emails and much more! [see next page]

#### In-Store Testing

Fully compatible with DataMate® 10 and DataMate® Web

#### **Advanced Optics**

 Immune to Power or Computer Outages (can still run tests and get results)

## WaterLink® Spin Touch™

#### Code 3580 | 3580-EU Europe

Includes: Photometer, Instruction Manual, Quick-Start Guide, 3 Syringes, Meter Check Disk, USB Cord with USB Wall Adapter, In-Store Kit [counter mat, banner, etc.]



## Mobile WaterLink® Spin Touch™

#### Code 3581 | 3581-EU Europe

Includes: All of the above plus Waterproof Carrying Case with Foam Inserts (holds meter and accessories); does not include In-Store Kit



## Mobile Commercial WaterLink® Spin Touch™

#### Code 3582 | 3582-EU Europe

Includes: All of the above plus Upright Waterproof Carrying Case with Foam Insert—ideal for 3-Use disk users (holds meter and accessories) does not include In-Store Kit



In-Store Kit	
Instrument Type:	Centrifugal Fluidics Photometer
6 Wavelengths:	390 nm, 428 nm, 470 nm, 525 nm, 568 nm, 635 nm
Display:	Color Capacitive Touchscreen, 3.5", 320 X 240 pixel resolution
Batteries:	Lithium Ion, Rechargeable (Full Charge in 10 hours), 150 tests per charge
Communication:	Bluetooth, USB-C
Calibration:	Factory Set, Field Calibration via Internet Connection
Data Storage:	Last 250 Test Results with Date and Time
Water Resistance:	Rubber Over-molded Base, Rubber USB Port Plug, Gasketed Display and Hinge
Size & Weight:	22.6 L x 12.7 W x 11.4 H cm, 0.79 kg; 8.5 L x 4.9 W x 4.1 H", 1.74 lb.
Operation:	Single On/Off/Reset Button with Indicator Light, Touchscreen
Firmware:	Internet Updateable (New Tests, New Test Calibrations, etc.)
Software (optional):	Android & iOS Apps, DataMate® Web, DataMate® 10
Languages	English, French, Spanish, German, Italian, Portuguese, Dutch, Swedish, Chinese
Certification	CE
Printer:	Optional Bluetooth Printer (Code 3-0066); 384 dots per line at 8 dots/mm resolution Available in 2018

## Professionals, Public Operators, Private Owners

## Insta-TEST® Plus Strips

The Insta-TEST® 3, PR0400, and 5-way pool and spa test strips are the only strips of their kind that do not require any specific waiting period. Just dip the strip in the pool or spa for accurate and reliable results. The 3-way test strip measures for Free Chlorine or Bromine, Alkalinity and pH all on one strip. The 5-way test strip measures Free Chlorine or Bromine, Total Chlorine, Alkalinity, pH and Total Hardness. Both are sold in vials containing 50 strips. The PR0400 provides 100 strips and measures the Free Chlorine or Bromine, Total Chlorine, pH and Alkalinity. The PopTop bottle features a patented desiccant liner covering its base and sides, which provides substantially better moisture protection and eliminates the need for a loose desiccant bag. Another feature is the hinged cap, which eliminates the problem of loose caps getting wet. Each bottle has a 30 month shelf life. Individual units are available through local retailers, which can be found on our website www.lamotte.com/insta.

The Sodium Chloride Insta-TEST® strip is an easy one step procedure for measuring Sodium Chloride in salt-water pools. Just dip and read to get results in only 20 seconds. The strip measures salt water pool samples over the range of 1,500 to 5,000 ppm. Each bottle contains 50 strips in a convenient, black PopTop bottle. A desiccant liner inside the bottle protects the strips from moisture intrusion and UV light.

The Wide Range pH and Total Chlorine Insta-TEST® strip identifies how far out of range a pool or spa sample may be, before a variety of treatment chemicals and test reagents are consumed. The Wide Range strip provides quick and reliable results in just 15 seconds. The strips are designed to measure Total Chlorine from 0 to 50 ppm and pH from 4 to 10.

See pages 36-37 for additional test strips.



Code	Model	Free Chlorine	Bromine	Total Chlorine	Alkalinity	рН	Total Hardness	Salt	Case Pack Size	Ship Code
2976	Insta-TEST 3 Plus	0 to 10	0 to 20	_	0 to 240	6.2 to 9.0	_	_	12, 24 or 100	NH
2977	Insta-TEST 5 Plus	0 to 10	0 to 20	0 to 10	0 to 240	6.2 to 9.0	50 to 800	_	12 or 100	NH
2978	Insta-TEST PRO 400 Plus	0 to 10	0 to 20	0 to 10	0 to 240	6.2 to 9.0	_	_	12 or 100	NH
2998	Insta-TEST Salt	_	_	_	_	_	_	1500 to 5000	12 or 100	NH
2987-G	Insta-TEST Wide Range pH/Total Chlorine	_	_	0 to 50	_	4 to 10	-	_	12	NH



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## Professionals, Public Operators, Private Owners

## **DipCell Series**

The LaMotte DipCell color comparator is available in a competitive lineup of kits for the pool operator and service pro. The DipCell comparator is simple to use. Just dip the comparator into the water to get a sample, add reagents, cap, mix, and read chlorine and pH immediately. Six color standards are provided for wide-range chlorine from 0.5-10.0 ppm. The six standards included for pH range from 6.8 - 8.2.

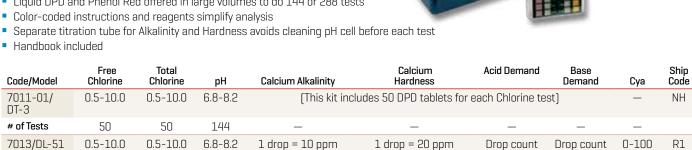
A wide range chlorine DipCell measures Chlorine from 0.5 - 10 ppm

144

144

- Removable wall dividers inside the carrying case permit an easy upgrade to larger 60 mL reagent sizes
- "Handle-Top" carrying case is compact and rugged [7½" x 4½"]
- Liquid DPD and Phenol Red offered in large volumes to do 144 or 288 tests

# of Tests



70±



144

#### Pool MGR. Series

70±

#### All Tablet · Octa-Slide

Our rugged all tablet kit for the public pool operator. The precise Octa-Slide Comparator system is used to comply with regulatory standards. The Pool MGR. Series includes diagramed instructions, saturation index calculator, water quality handbook, and the eight-standard Octa-Slide Comparator system for chlorine and pH, all in a tough, blow molded carrying case. The Pool MGR. tablet series is supplied with sufficient tablet reagents for 50 tests for Free Chlorine, Total Chlorine, and pH. Tablet reagents for 20 tests are provided for Alkalinity, Hardness, and Cyanuric Acid.

70±

70±

50

Code/Model	Free Chlorine	Total Chlorine	рН	Total Alkalinity	Calcium Hardness	Acid Demand	Cyanuric Acid	Ship Code
3366-BR-01/PM-41-BR	Bromine	0-10.0	6.8-8.2	60-400	60-400	Calc.	-	NH
3366-01/PM-41	0.2-3.0	0.2-3.0	6.8-8.2	60-400	60-400	Calc.	_	NH
3366-NJ-01/PM-41-NJ	0.5-10.0	0.5-10.0	6.8-8.2	60-400	60-400	Calc.	-	NH
3368-01/PM-51	0.2-3.0	0.2-3.0	6.8-8.2	60-400	60-400	Calc.	0-100	NH
3368-NJ-01/PM-51-NJ	0.5-10.0	0.5-10.0	6.8-8.2	60-400	60-400	Calc.	0-100	NH
3368-ABC-01/PM-51-NJ	0.5-10.0	0.5-10.0	6.8-8.2	60-400	60-400	Acid/Base drop titration	0-100	NH
# of Tests	50	50	50	20	20	Calc. From Alk test result	20	NH

Ship Codes: [NH] Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Only · [HF] Hazardous Material - Air & Ground Fees \* (NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## Professionals, Public Operators, Private Owners



#### PR0250

Our professional water analysis kits are supplied in durable, cases for years of dependable service. Each unit features liquid reagent systems for chlorine and pH [capable of 280+ tests each]. The liquid DPD reagent system is provided to monitor chlorine, while pH is tested with a single liquid indicator. Total Alkalinity, Calcium Hardness, Acid and Base Demand are analyzed with drop count titrations. Cyanuric Acid is measured by turbidity. The PRO250 PLUS outfit includes all of the above plus Copper and Iron tests.

Every PR0250 SERIES kit includes color-coded caps to prevent mixups and diagramed instructions to make testing a breeze. The Pool MGR. Water Quality handbook and saturation index calculator are also included.

See the chart below for specifications.

Code/Model	Free Chlorine	Total Chlorine	рН	Total Alkalinity	Calcium Hardness	Acid & Base Demand	Суа	Copper	Iron	Ship Code
7001-NJ-01/ PR0250-NJ	0.2-3.0 & 0.5 -10.0	0.2-3.0 & 0.5 -10.0	6.8-8.2	1 drop = 10 ppm	1 drop = 20 ppm	Drop count	0-100	-	-	R2
7002-NJ-01/ PR0250 PLUS-NJ	0.2-3.0 & 0.5 -10.0	0.2-3.0 & 0.5 -10.0	6.8-8.2	1 drop =1 0 ppm	1 drop = 20 ppm	Drop count	0-100	0.1-1.0	0.1-1.0	R2
# of Tests	288	288	288	140+	140+	70 each	100	50	50	

## ColorQ PRO 9 TESTAB® KIT

Model PRO 9, Order Code 2069 (Ship Code R1; 4 lbs.)

The unique, multi-test ColorQ hand-held photometer reads NINE pool and spa test factors directly on a digital display. Featuring an innovative dual-optic design, the ColorQ provides more accuracy and more test factors. The ColorQ eliminates the need to visually determine slight color variations or use look-up tables, thus taking the quesswork out of poolside water analysis.

Test Factor	Range	Method
Free Chlorine (DPD)	0-10.0 ppm	Colorimeter
Total Chlorine (DPD)	0-10.0 ppm	Colorimeter
Bromine (DPD)	0-22.0 ppm	Colorimeter
рН	6.5-8.5 pH	Colorimeter
Calcium Hardness	0-400 ppm	Colorimeter
Total Alkalinity	0-250 ppm	Colorimeter
Iron	0-3.0 ppm	Colorimeter
Copper	0-4.0 ppm	Colorimeter
Cyanuric Acid	0-125 ppm	Colorimeter



Ship Codes: (NH) Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Only · [HF] Hazardous Material - Air & Ground Fees \*(NPDWR) EPA Accepted · 1(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## Professionals, Public Operators, Private Owners

## DPD TesTabs<sup>®</sup> - All new packaging for easier use!

As the only North American manufacturer of DPD tablets, LaMotte has replaced traditional foil-on-foil strip packaging with blister-style foil packaging. The user can dispense each tablet into a small vial by pressing the tablet through the foil. This eliminates the need to manually tear open a foil packet and carefully dispense the tablet. The package carries the customary 10 tablets per strip in a compact  $3.35^{\circ} \times 1.35^{\circ}$  size. In addition to the convenient package, the DPD #1R rapid dissolving formula for measuring Free Chlorine has been enhanced for faster dissolution. Listed below are visual grade tablets.



		Quantity/Or	der Code	
Tablet	50	100	1000	Ship Code
Chlorine DPD #1 Rapid	6999A-H	6999A-J	6999A-M	NH
Chlorine DPD #3 Rapid	6905A-H	6905A-J	6905A-M	NH
Chlorine DPD #4 Rapid	6899A-H	6899A-J	6899A-M	NH
pH (Phenol Red)	6915A-H	6915A-J	6915A-M	NH
Alk Test	3920A-H	3920A-J	3920A-M	NH
Cyanuric Acid	6994A-H	6994A-J	6994A-M	NH
Calcium Hardness	6846A-H	6846A-J	6846A-M	NH
MPS-OUT (Monopersulfate Eliminator)	6911A-H	6911A-J	N/A	NH

## See page 33 for instrument tablets

## **DPD Liquid Reagents**

The liquid alternative to DPD tablets can be used with existing LaMotte chlorine comparators or colorimeters. DPD 1A and DPD 1B are added to a 5 or 10 mL sample to test Free Available Chlorine. DPD 3 is added to the reacted sample to measure Total Chlorine. Liquid reagents are also available to measure pH, Hardness, Alkalinity, and Copper.

30 mL(1 oz.)	Code	Ship Code
DPD 1A	P-6740-G	NH
DPD 1B	P-6741-G	R2
DPD 3	P-6743-G	NH

60 mL (2 oz.)	Code	Ship Code
DPD 1A	P-6740-H	NH
DPD 1B	P-6741-H	R2
DPD 3	P-6743-H	NH





## Water & Wastewater

## Municipal & Industrial Water & Wastewater Systems

## StormWatch MS4 Water Analysis Kit

Model MS4 · Order Code 7449 (Ship Code R1; 10 lbs.)

The LaMotte Stormwater MS4 Kit has instrumentation and reagent systems to provide a preliminary screening of stormwater outflow, and to determine whether it is contributing to the overall pollutant load from precipitation events. Meets guidance as set forth by USEPA.

#### **Features**

- Fast Most tests can be completed in under 2-minutes
- Easy All meters and tests come with easy-to-follow instructions
- Unique Design All-in-one kit covers your testing needs in one carrying case
- Expandable To over 80 tests



= LaMotte

Test Factor	Range (# Tests)
Ammonia	0.05-4.00 ppm
Color	20-1,000 color units
Conductivity	0-19.99 uS/cm
Hardness	1 drop = 10, 25 or 50 ppm
рН	0.00-14.00 pH
Potassium	0.05-10 ppm
TDS	0-999 ppm
Turbidity	3-400 FAU
Hardness pH Potassium TDS	1 drop = 10, 25 or 50 ppm 0.00-14.00 pH 0.05-10 ppm 0-999 ppm

Expanded range for all factors available by dilution.

Shipping Code Description - R1: Small Quantity Hazardous Materials, No Fees



Scan here to see our Stormwater MS4 Guidance video



## Water & Wastewater

## Municipal & Industrial Water & Wastewater Systems



## StormWatch Drain Monitoring Kit

Model SD · Code 7446-01 (Ship Code LQ; 10 lbs.)

The Model SD Monitoring Kit was specifically designed and manufactured to meet US EPA requirements for field test procedures approved in the Federal Register (Volume 55, No. 217), to monitor illicit storm drain connections. Each unit includes tests for pH, Total Chlorine, Total Copper, Phenols, Detergent Surfactants, and Turbidity. The Model SD is packaged in a rugged portable carrying case for on-site use. Includes diagrammed instructions.

Factor	Range	Method	Color Bar Values
Phenols	0-5.0 ppm	4-Aminoantipyrine Slide	0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0
Copper	0-4.0 ppm	Thiocarbamate Slide	0.0, 0.25, 0.5, 1.0, 1.5, 2.0, 3.0, 4.0
Detergents	0.1 ppm sensitivity	Titration	
Total Residual Chlorine	0.2-3.0 ppm	DPD Slide	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0
Turbidity	0 to 500 FTU	Formazin Equivalent	Low, Med, High
Meters	Range		
Tracer pH PockeTester	0-14 pH, 0.01 pH		

Shipping Code Description - LQ: Hazardous Materials, Air Fees Only

### **Corrosion Control Kit**

Model CCK, Order Code 7436-02 (Ship Code R1; 7 lbs.) Reagent Refill, Order Code R-7436-01 (Ship Code R1)

By determining corrosive conditions in water supplies, this test kit supports a water supplier's lead in drinking water abatement program. Each unit includes tests for P and T alkalinity, calcium hardness, temperature, pH, phosphates, and total dissolved solids. Calculate saturation index by the Langelier method to indicate the corrosive conditions in water supplies. The Model CCK Corrosion Control kit is packaged in a portable carrying case for on-site use.

Factor	Method	Range (# Tests)
Calcium Hardness	Complexometric	0-200 ppm(50)
P & T Alkalinity	Neutralization	0-200 ppm (50)
Orthophosphate	Ascorbic Acid	0.5-10 ppm (50)
Temperature		-5° to +45°C (Unlimited)
Corrosion Index		By calculation via chart (50)

Meters	Range
Waterproof pH 1 PockeTester	0-14 pH
Waterproof TDS 1 PockeTester	10-1990 ppm



Ship Codes: (NH) Non-Hazardous Material - No Fees · (R1) Small Qty. Hazardous Material - No Fees · (LQ, R2, R3) Hazardous Material - Air Fees Only · (HF) Hazardous Material - Air & Ground Fees \*(NPDWR) EPA Accepted · †(NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## Water Conditioning

## Residential & Commercial Water Treatment Specialists

## Customize Your Water Quality Sales Demonstrations. Choose the Softener that Meets Your Needs!

LaMotte Model AT-Q Digital and AT Visual series outfits are the most popular and effective sales tools for on-site demonstrations. The tests clearly demonstrate the benefits between untreated and treated water.

## AT-Q Digital Series

#### Featuring the ColorQ DW digital colorimeter

 New digital versions New rugged case

with locks

- Fast & simple tests
- More custom options
- Competitive pricing









AT-Q with DirectFlo · Code 4-3071-01



AT-Q Digital Kit Tests (9 Included)

	Hardness	рН	Iron	Nitrate	Chlorine Free & Total	Sulfide	Precipitation	Soap Consumption
Range	1-41 gpg*	5-9	0-3.0 ppm*	0-25	0-10 ppm	0-3.0 ppm*	Before/After	Before/After
Resolution	1 gpg	0.5 pH	0.5	1 ppm	0.2 ppm	0.2 ppm	_	
# of Tests	140	70	50	50	50	120	100	100

<sup>\*</sup>Higher Concentrations by dilution; instructions included.

### **AT Visual Series**





#### AT Visual Kit Tests (5 Included)

	Hardness	рН	Iron	Precipitation	Soap Consumption
Range	1 drop = 10 ppm/1 gpg	5.0-10 ppm	0.5-10* ppm	Before/After	Before/After
# of Tests	100	100	100	100	100

<sup>\*</sup>Higher Concentrations by dilution; instructions included.

#### Optional Add-On Kits and TDS Meter:

Chlorine (0.2-3.0 ppm), 50 Tests; Code 4-3006 Nitrate (0-15 ppm), 50 Tests; Code 4-3004 TDS Meter, Code 5-0080 (see page 26)

Code 4-3018-01

Ship Codes: (NH) Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Dnly · [HF] Hazardous Material - Air & Ground Fees \* (NPDWR) EPA Accepted · † (NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

## Water Conditioning

## Residential & Commercial Water Treatment Specialists

### **Demonstration Softener Units**



Single chamber, filled with resin

#### Order Code 1022

Duo-Soft™

Dual chamber, shipped empty

#### Order Code 1022-FLD

Dual chamber, filled with carbon and resin



## DirectFlo

#### Order Code 1026

- Hose Free
- Single chamber, filled with resin



DirectFlo DuoSoft

#### Order Code 1028

- Hose Free
- Dual chamber, filled with carbon and resin

### Please visit www.lamotte.com for details

## **Packaged Drinking Water Test Strips**

Code 4-2936FP-100

Each LaMotte Drinking Water Test Strip tests 5 important water quality parameters for both municipal and well water sources in only seconds! With a 2-second dip, each strip determines Free Chlorine, Total Chlorine, Total Hardness, pH, and Nitrate. Sold in case of 100 packets!



Each plastic packet contains: 2 individually packed test strips, full-color instructions, and color chart.

Factor	Range	Factor
Free Chlorine, Total Chlorine, Total Hardness, pH, and Nitrate	0-10 (FCI) 0-10 (TCI) 0-400 (Hard) 4-10 (pH) 0-50 (Nitrate)	0, 0.5, 1, 3, 5, 10 0, 0.5, 1, 3, 5, 10 0, 50, 100, 200, 400 0, 3, 5.8, 11.7, 23 (gpg) 4, 5, 6, 7, 8, 9, 10 0, 5, 10, 25, 50 (NO <sub>3</sub> -N)

## Water Quality Outfit

#### Model AR-42, Order Code 3590-03 (Ship Code R1, 7 lbs.)

The simplest, most economical way to measure several water quality factors with a single, portable outfit. Ideal for service applications. Easily customized for your particular analytical needs.

Tests for pH, hardness, iron, and sulfide. Includes reagents for 50 tests each for pH, hardness, and sulfide; 100 tests for iron.

Factor	Method	Range (# Tests)
рН	Wide Range	pH 5.0-10.0 (50)
Iron	Bipyridyl	0.5-10.0 ppm (100)
Hardness	Titration	1 drop = 10 ppm/1 gpg (50)
Sulfide	Pomeroy	0.2-20.0 ppm (50)





Ship Codes: [NH] Non-Hazardous Material - No Fees · [R1] Small Qty. Hazardous Material - No Fees · [LQ, R2, R3] Hazardous Material - Air Fees Only · [HF] Hazardous Material - Air & Ground Fees \* (NPDWR) EPA Accepted · † (NPDES) EPA Accepted · Direct Reading Titrators have a specific range, but may be refilled to test higher concentrations.

### How to use this section:

The reagent code number is followed by a letter which indicates the container size supplied for that reagent. The following table shows how those letters correspond to container sizes - milliliters for liquids and grams fo powder. When ordering a reagent, please include the appropriate letter suffix with the reagent code number to indicate the container size.

EXAMPLE: To order a 60 mL bottle of Phenol Red Solution (Reagent Code Number 2211), use the letter "-H", and order by code number "2211-H".

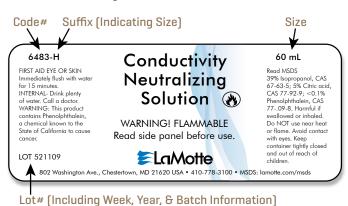
NOTE: A reagent is available only in the sizes indicated under the kit's listing in this section.

A	1	1mL	1 gram
B	2	2 mL	2 grams
C	5	5 mL	5 grams
-D	10	10 mL	10 grams
-E	15	15 mL	15 grams
F	20	20 mL	20 grams
G	30	30mL	30 grams
H	60	60mL	60 grams
-J	120	120mL	120 grams
K	250	250-285mL	1200-500 grams
-L	500	470-525mL	450-500 grams
-M	1000	950-1000mL	
-N		3800mL	

# How to Determine Reagent Manufacture and Expiration Dates

On the lower, left corner of the label of each LaMotte reagent is a six [sometimes seven], digit number. This is not a code number, but the lot number of that reagent. A lot number records the date of manufacture and identifies the reagent as part of a specific batch of reagent produced on that date. The first two digits of the lot number identify the week, and the third digit identifies the year of manufacture.

If the shelf-life of your reagent is unknown, one year from the date of manufacture is still a good rule of thumb.



Kit Code	Reagent #	Description
2036-01	2220-H	Range Finding Indicator
2081-02	2218-G	Wide Range
	2212-G	Cresol Red
2109-01	2210-G	Bromthymol Blue
2110-01	2211-G	Phenol Red
2111-01	2212-G	Cresol Red
2112-01	2213-G	Thymol Blue
	2214-G	Oleo Red B
3036-DR-02	6410-E	Ferroin
	6411PS-H	Nitrite DRT
3037-DR-01	4483-E	Hardness 5
	4257-H	Hardness Titration
	6522-E	CM Indicator
3043-DR-01	6413-E	QAC Indicator
	6412-H	Titration Reagent
3095-02	6434-H	Hypochlorite Indicator
	7941PS-H	Hypochlorite Reagent C
	2301-G	Nitro Green Indicator
	4483-E	Hardness Reagent 5
	4485-E	Hardness Reagent 6
	4487PS-H	Hardness Reagent 7
	2246-E	Phenolphthalein
	2230-E	Methyl Orange Indicator
	6130PS-H	Hydrochloric Acid 1N
	6323-H	Hydrochloric Acid 0.1N
	6432-H	Sour Indicator
3110-01	V-6278-H	Mixed Acid
	V-6279-C	Nitrate Reducing
3114-02	V-6282-G	Phosphate Acid
	V-6283-C	Phosphate Reducing
3119-01	V-6278-J	Mixed Acid
	V-6279-C	Nitrate Reducing
	V-6282-H	Phosphate Acid
	V-6283-C	Phosphate Reducing
3121-02	V-6282-G	Phosphate Acid
	V-6283-C	Phosphate Reducing
3138-01	6364-C	Tetraphenylboron
	7745-E	Sodium Hydroxide
3160-01	6484-H	Molybdenum Buffer
	6485-H	Molybdenum Oxidizing
	6486-S	Molybdenum Indicator
3176-02	6807-C	DPD 1
	6905-H	DPD 3R
	6815-G	Ferrous Ammonium Sulfate
	6495-E	Control Reagent

Kit Code	Reagent #	Description
3240-01	6903-J	DPD 1
	6197-J	DPD 3
3240-LI	P-6740-G	DPD 1A
	P-6741-G	DPD 1B
	P-6743-G	DPD 3
3241	V-4797-G	Ammonia Nitrogen 1
	V-4798-G	Ammonia Nitrogen 2
3242	V-6282-H	Phosphate Acid
	V-6283-D	Phosphate Reducing
3243	3875-J	Acid Zirconyl SPADNS
	4128-H	Sodium Arsenite
3245	6446-G	Copper 1
3246	6485-G	Molybdenum Oxidizing
	3997-Н	MO Buffer
	6486-S	Molybdenum Indicator
3247	V-6277-D	Sulfate
3248	2776-E	Acid Phenanthroline
	2777-C	Iron Reducing
3304-02	3978LWT-H	Salicylate Ammonia #1
	3979WT-G	Salicylate Ammonia #2
	3982WT-G	Salicylate Ammonia #3
3308-01	6999-Н	DPD 1R
	6905-H	DPD 3R
3312-01	6999-Н	DPD 1R
	6905-H	DPD 3R
3314-01	6999-J	DPD 1R
	6905-J	DPD 3R
3328-01	6999-Н	DPD 1R
	6905-H	DPD 3R
3346-01	3962-Н	Molybdate 1 HR
	3963-Н	Molybdate 2 HR
3347-01	4450-G	Iron Reagent 1
	4451-S	Iron Reagent 2 Powder
	4453-S	Ferrous Iron Reagent
3352-01	V-6278-J	Mixed Acid Reagent
	V-6281-C	Color Developing Reagent
3354-01	2799-Н	Nitrate 1
	NN-3703-H	Nitrate 2
3363-01	6915-H	Phenol Red
	6905-6999	DPD 1, DPD 3
3363-NJ-01	6915-H	Phenol Red
	6905-6999	DPD 1, DPD 3
3366-01	6905-6999	DPD 1, DPD 3
	6915-3box	pH, Alk, Hard

Kit Code	Reagent #	Description
3366-BR-01	6999-J	DPD 1R
	6915-3box	pH, Alk, Hard
3368-01	6905-6999	DPD 1, DPD 3
	3920-4box	pH, Alk, Hard, CYA
3467-01	3870-E	Alkalinity Indicator 1
	3869-E	Alkalinity Indicator 2
	4493DR-H	Alkalinity B
3468-01	4069-E	Chloride A
	4070-H	Chloride B
3519-01	V-6278-J	Mixed Acid
	V-6279-C	Nitrate Reducing
	V-6281-C	Color Developing
3541-01	6381-G	Hydrochloric Acid
	4100-G	O-Tolidine
	5116WT-G	Ferric Iron Test
	9078WT-G	Sour Indicator
3569-01	3943-H	Aluminum 1
	3944-H	Aluminum 2
3588-02	4255-H	Hardness Buffer
	3956-G	Manganese
	6203-J	Chloroform
	2785-E	Metal Inhibitor
3609-01	4259-E	Sodium Hydroxide
	T-5250-H	Calcium Hardness
	4487DR-H	Hardness 7
3615-01	V-6278-K	Mixed Acid
	V-6279-D	Nitrate Reducing
3619	P-6367-E	Copper A
	P-6368-E	Copper B
3624-01	6807-C	DPD 1
	6905-H	DPD 3R
	3992DR-H	Chlorine/Bromine
3628-01	7646-G	Molybdenum Buffer
3632-01	3997-J	MO Buffer
	3998-H	Denatured Alcohol
	3999-H	MO Titrant
	4001-S	Carbazone
		·

Kit Code	Reagent #	Description
3633-05	4797WT-G	Ammonia Nitrogen 1
	4798WT-G	Ammonia Nitrogen 2
	2218-G	Wide Range, pH 3
	V-6278-H	Mixed Acid
	V-6281-D	Color Developing
	2311-Eg-E	BCG-MR Indicator
	4493DR-H	Alkalinity B
	2246-E	Phenolphthalein
	4504-E	Chloride 1
	4505DR-H	Chloride 2
	6090-E	Sulfuric Acid
	4483-E	Hardness 5
	4485-E	Hardness 6
	4487DR-H	Hardness 7
	4169-H	Sodium Thiosulfate
	4167-G	Mang. Sulfate
	7166-G	Alkaline Potassium Iodide-Azide
	6141WT-G	Sulfuric Acid
	4170PS-G	Starch Indicator
	4253DR-H	Carbon Dioxide B
3635-05	2218-G	Wide Range pH 3
	3978LWT-H	Salicylate Ammonia 1
	3979WT-G	Salicylate Ammonia 2
	3982WT-G	Salicylate Ammonia 3
	V-6278-J	Mixed Acid
	V-6281-C	Color Developing
	V-6279-C	Nitrate Reducing
	2311-Eg-E	BCG-MR Indicator
	4493DR-H	Alkalinity Titration B
	2246-E	Phenolphthalein
	4253DR-H	Carbon Dioxide B
	7460-E	Salinity Indicator A
	7461-H	Salinity Titration B
	4169-H	Sodium Thiosulfate
	4167-G	Mang. Sulfate
	7166-G	Alkaline Potassium Iodide-Azide
	6141WT-G	Sulfuric Acid
	4170PS-G	Starch Indicator
3639-SC	4004WT-G	Sodium Hydroxide
	6364-C	 Tetraphenylboron
3640-SC	T-3808-H	Copper Tablets
3641-01-SC	7865-C	Aluminum Inhibitor
	7866-J	Aluminum Buffer
	7867-J	Aluminum Indicator
	7868-E	Aluminum Complexing

Kit Code	Reagent #	Description
3642-SC	V-4797-G	Ammonia Nitrogen 1
	V-4798-G	Ammonia Nitrogen 2
3643-SC	6903-J	DPD 1
	6197-J	DPD 3
	6811-E	Glycine
3644-SC	6903-J	DPD 1
	6811-E	Glycine
3645-SC	V-6276-D	Chromium
3646-SC	6446-E	Copper 1
3647-02-SC	3875-G	Acid Zirconyl Spadns
	4128-G	Sodium Arsenite
3648-SC	V-4450-G	Iron 1
	V-4451-C	Iron 2
3649-SC	V-6278-H	Mixed Acid
	V-6279-C	Nitrate Reducing
3650-SC	V-6278-H	Mixed Acid
	V-6281-C	Color Developing
3651-SC	3989-G	Indigo Blue Solution
	3990-E	Chlorine Inhibitor
	3991-K	Ozone Buffer
3652-01-SC	7825-C	Aminoantipyrine
	7826-G	Ammonium Hydroxide
	7827-H	Potassium Ferricyanide
3653-SC	V-6282-H	Phosphate Acid
	V-6283-C	Phosphate Reducing
3654-02-SC	V-4458-G	Sulfide A
	V-4459-E	Sulfide B
	4460-H	Sulfide C
3655-SC	4410-H	Phosphate
3656-01-SC	4842-D	Reagent B
	4841-H	Hydrazine A
3658-01-SC	3956-G	Manganese Indicator
	4255-G	Hardness Buffer
	6565-E	Sodium Cyanide
3659-01-SC	3978-Н	Salicylate Ammonia 1
	7457-D	Salicylate 2
	7458-C	Salicylate 3
3660-01-SC	6130-E	Hydrochloric Acid
	4004-E	Sodium Hydroxide
	2850PS-H	Cyanide Buffer
	2794DS-C	Cyanide CL
	2793DS-C	Cyanide Indicator
3661-01-SC	4856-K	Cyanuric Acid Rgt.
3662-SC	6452-G	Hydrogen Peroxide 1
	6454	Hydrogen Peroxide Tabs

Kit Code	Reagent #	Description
3663-01-SC	6251PS-H	Hydrochloric Acid
	6253-K	Sodium Citrate
	6254-H	Dimethylglyoxime
	6537-H	Ammonium Hydroxide
	6566-G	Ammonium Pers
	6346WT-G	Silver Nitrate
3664-SC	V-4466-G	Silica 1
	V-4467-G	Silica 2
	V-4468-G	Silica 3
	V-6284-D	Silica 4
3665-SC	V-6277-D	Sulfate Rgt.
3666-01-SC	7833-G	Tannin 1
	7834-H	Tannin 2
3667-01-SC	6314-G	Zinc Indicator
	6315-G	Zinc Buffer
	6565-E	Sodium Cyanide
	6316-D	Sodium Ascorbate
	5128-G	Formaldehyde
	6319-J	Methyl Alcohol
3668-SC	2776-E	Acid Phenanthroline
	2777-C	Iron Reducing
3669-SC	6310-D	Manganese Buffer
	6311-E	Manganese Periodate
3240-01	6903-J	DPD 1
	6197-J	DPD 3
3240-LI	P-6740-G	DPD 1A
	P-6741-G	DPD 1B
	P-6743-G	DPD 3
3245	6446-G	Copper 1
3243	3875-J	Acid Zirconyl SPADNS
	4128-H	Sodium Arsenite
3246	6485-G	Molybden. Oxidizing
	3997-H	MO Buffer
	3997-H 6486-S	MO Buffer  Molybdenum Indicator
3242		
3242	6486-S	Molybdenum Indicator
3242 3241	6486-S V-6282-H	Molybdenum Indicator Phosphate Acid
	6486-S V-6282-H V-6283-D	Molybdenum Indicator Phosphate Acid Phosphate Reducing
	6486-S V-6282-H V-6283-D V-4797-G	Molybdenum Indicator Phosphate Acid Phosphate Reducing Ammonia Nitrogen 1
3241	V-6282-H V-6283-D V-4797-G V-4798-G	Molybdenum Indicator Phosphate Acid Phosphate Reducing Ammonia Nitrogen 1 Ammonia Nitrogen 2
3241	6486-S V-6282-H V-6283-D V-4797-G V-4798-G 2776-E	Molybdenum Indicator Phosphate Acid Phosphate Reducing Ammonia Nitrogen 1 Ammonia Nitrogen 2 Acid Phenanthroline
3241	6486-S V-6282-H V-6283-D V-4797-G V-4798-G 2776-E 2777-C	Molybdenum Indicator Phosphate Acid Phosphate Reducing Ammonia Nitrogen 1 Ammonia Nitrogen 2 Acid Phenanthroline Iron Reducing
3241 3248 3247	6486-S V-6282-H V-6283-D V-4797-G V-4798-G 2776-E 2777-C V-6277-D	Molybdenum Indicator Phosphate Acid Phosphate Reducing Ammonia Nitrogen 1 Ammonia Nitrogen 2 Acid Phenanthroline Iron Reducing Sulfate Rgt.

Kit Code	Reagent #	Description
3688-SC	4167-G	Manganous Sulfate
	7166-G	Alkaline Pot. Iodide-Azide
	6141WT-G	Sulfuric Acid
3698-SC	7681-H	Sulfuric Acid
	V-6276-D	Chromium Rgt.
	7683-E	Sodium Azide
	7682-G	Potassium Permanganate
	5115PT-H	Deionized Water
3699-03-SC	3997-G	MO Buffer
	6485-G	Molybdenum Oxidizing
	6486-S	Molybdenum Indicator
3700-01-SC	V-2209-H	TRL Chlorphenol Red
	V-2304-H	TRL Phenol Red
	V-2213-H	TRL Thymol Blue
4-3003-02	4450-G	Iron 1
	4451-S	Iron 2
	2218-G	Wide Range Indicator
	4767-H	Soap 4
	4542-H	Precip A
	4543-H	Precip B
	4483WT-H	Hardness 5
	4484-J	Hardness 6
	4487WT-H	Hardness 7
4-8776-01	4133	DSP Reagent 10%
	4135	Borate Buffer
	4134	PSSA Reagent 5%
	4170	Starch Indicator
	6377	lodine Solution 0.025N
	3843	Zinc Acetate 2.0N
4031-01	4032	Ammonia Chloride Buffer
	6565	Sodium Cyanide 10%
	4033	PAR Indicator
	4022	Stabilizing Reagent
4401-02	4410-G	VM Phosphate
4408-01	6405-G	Reducing Rgt.
	4410-H	VM Phosphate
4430-01	4431-G	Chromate Indicator
4447-01	4450-G	Iron 1
	4451-S	Iron 2
4456-01	4458-G	Sulfide A
	4459-E	Sulfide B
	4460-H	Sulfide C

Kit Code	Reagent #	Description
4463-01	4571-G	Silica 1
	4467-E	Silica 2
	4468-E	Silica 3
	6405-C	Reducing Rgt.
4482-DR-LI-01	4483-E	Hardness 5
	4485-E	Hardness 6
	4487DR-H	Hardness 7
4482-DR-LT-01	4483-E	Hardness 5
	4484-J	Hardness 6
	4487DR-H	Hardness 7
4482-LI-02	4483-E	Hardness 5
	4485-E	Hardness 6
	4487WT-H	Hardness 7
4482-LT-02	4483-E	Hardness 5
	4484-J	Hardness 6
	4487WT-H	Hardness 7
4491-DR-01	T-2311-H	BCG-MR Indicator
	4493DR-H	Alkalinity Titration B
4497-01	4498WT-H	Chlorine 1
	4499WT-H	Chlorine 2
	4500PA-H	Chlorine 3
4497-DR-01	4498WT-H	Chlorine 1
	4499WT-H	Chlorine 2
	4500DR-H	Chlorine 3
4501-01	4498-E	Chlorine 1
	4499-E	Chlorine 2
	3819-H	Sodium Thiosulfate
4503-DR-02	4504-E	Chloride 1
	2246-E	Phenolphthalein
	6090-E	Sulfuric Acid
	4505DR-G	Chloride 2
4507-02	4508-G	DS Indicator
	4509-H	pH Adjustment
	4513-E	DS Reference
4515-01	7444-H	Detergent Reagent 1
	6037-J	Detergent Reagent 2
	7445-J	Detergent Reagent 3
4533-01	T-2246-J	Phenolphthalein
	T-2311-J	BCG-MR Indicator
	4493PS-H	Alkalinity Titration B
4533-DR-01	T-2246-J	Phenolphthalein
	T-2311-J	BCG-MR Indicator

Kit Code	Reagent #	Description
4630	4633-H	Sulfide Test 1
	4634-H	Sulfide Test 2
	4635-H	Sulfide Test 3
	4636-H	Sulfide Test 4
	4636-J	Sulfide Test 4
	4637-S	Sulfide Test 5
	4638-S	Sulfide Test 6
	4639-H	Sulfide Test 7
	4640-H	Sulfide Test 8
4766	4768-H	Hardness Soap
4783-03	4483-E	Hardness 5
	4484-J	Hardness 6
	4487WT-H	Hardness 7
	4450-G	Iron 1
	4451-S	Iron 2
	2218-G	Wide Range
4790-01	4791-E	DEHA 1
	4792-E	DEHA 2
	4793-E	DEHA 3
4801-DR-01	4802DR-H	TDS A
	4803DR-H	TDS B
	2299-E	Methyl Orange
4824-DR-LT-01	4259-E	Sod. Hydroxide
	T-5250-H	Calcium Hardness
	4483-E	Hardness 5
	4484-J	Hardness 6
	4487DR-H	Hardness 7
4824-LT-02	4483-E	Hardness 5
	4484-J	Hardness 6
	4487WT-H	Hardness 7
	4259-E	Sod. Hydroxide
	T-5250-H	Calcium Hardness
5858-01	2218-G	Wide Range Indicator
5860-01	4167-G	Manganous Sulfate
	4169-H	Sodium Thiosulfate
	4170-H	Starch Indicator
	6141WT-G	Sulfuric Acid
	7166-G	Alkaline Potassium Iodide-Azide
5864-01	3968A-H	Ammonia #1 Tab
	3969A-H	Ammonia #2 Tab
6616-01	6446-E	Copper 1
6628-01	6630-D	Molybdenum Rgt.
	6381-G	Hydrochloric Acid

6701-01         6698-C         Formaldehyde 2           6698-C         Formaldehyde 3           6896-01         6999-J         DPD 1R           6991-H         Phenol Red           6980-01         6999         DPD 1R           6990-B         DPD 2R           6990-B         DPD 3R           6899         DPD 4R           6899         DPD 1A           P-6741-H         DPD 1B           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-6068-E         Acid Demand           P-6740-H         DPD 1A           P-6741-H         DPD 1A           P-6749-H         DPD 1A           P-6740-E         Base Demand           P-6741-H         DPD 1A           P-6741-H         DPD 1A           P-6741-H         DPD 1A           P-67	Kit Code	Reagent #	Description
6896-01       6699-J       Formaldehyde 3         6896-01       6999-J       DPD 1R         6998       DPD 1R         6904       DPD 2R         6905       DPD 3R         6899       DPD 4R         69015       Phenol Red         7001-NJ-01       P-6740-H       DPD 1A         P-6741-H       DPD 1B       P-6743-H       DPD 3         P-7026-H       Phenol Red       6994-J       Cyanuric Acid         P-7028-G       Alk 1 Indicator       P-6111-H       Alk Titrant         P-4259-H       Hard 1       P-7030-G       Hard 2         P-7031-H       CaHard Titrant       P-6068-E       Acid Demand         P-6460-E       Base Demand         P-6741-H       DPD 1A       P-6741-H       DPD 1B         P-6741-H       DPD 1B       P-6741-H       DPD 1B         P-6741-H       DPD 1B       P-6741-H       DPD 1B         P-6743-H       DPD 3       P-6743-H       DPD 3         P-6741-H       DPD 1B       P-6741-H       DPD 1B         P-6741-H       DPD 1B       P-6741-H       DPD 1B         P-6741-H       DPD 1B       P-6741-H       DPD 1B <t< th=""><th>6701-01</th><th>6697-J</th><th>Formaldehyde 1</th></t<>	6701-01	6697-J	Formaldehyde 1
6896-01         6999-J         DPD 1R           6980-01         6999         DPD 1R           6904         DPD 2R           6905         DPD 3R           6899         DPD 4R           6915         Phenol Red           7001-NJ-01         P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-693-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-668-E         Acid Demand           P-6460-E         Base Demand           P-6741-H         DPD 1A           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7026-G         Alk 1 Indicator           P-694-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         A		6698-C	Formaldehyde 2
6980-01   6999   DPD 1R     6904   DPD 2R     6905   DPD 3R     6899   DPD 4R     6915   Phenol Red     7001-NJ-01   P-6740-H DPD 1A     P-6741-H DPD 1B     P-6743-H DPD 3     P-7026-H Phenol Red     6994-J Cyanuric Acid     P-7028-G Alk 1 Indicator     P-7031-H CaHard Titrant     P-608-E Acid Demand     P-6741-H DPD 1A     P-6740-H DPD 1A     P-7031-H CaHard Titrant     P-6068-E Acid Demand     P-640-E Base Demand     P-6741-H DPD 1B     P-6741-H DPD 1B     P-6741-H DPD 1A     P-6741-H DPD 1B     P-6743-H DPD 3     P-7026-H Phenol Red     6994-J Cyanuric Acid     P-7026-H Phenol Red     6994-J Cyanuric Acid     P-7026-H Phenol Red     6994-J Cyanuric Acid     P-7026-G Alk 1 Indicator     P-6111-H Alk Titrant     P-608-E Acid Demand     P-7028-G Alk 1 Indicator     P-7031-H CaHard Titrant     P-6459-H Hard 1     P-7030-G Hard 2     P-7031-H CaHard Titrant     P-6068-E Acid Demand     P-640-E Base Demand     P-640-E Base Demand     P-4450-E Iron 1     T-4451-H Iron 2     P-6446-E Copper 1     7011-01   T-4451-H Iron 2     P-6446-E Copper 1     7011-01     7011-01   T-4451-H Iron 2     P-6446-E Copper 1     7011-01     7011-01   T-4451-H Iron 2     P-6446-E Copper 1     7011-01   T-4451-H Iron 2     7011-01   T-4451-H Iron 2     P-6446-E Copper 1     7011-01   T-4451-H Iron 2     P-6446-E Copper 1     7011-01   T-4451-H Iron 2     P-7011-1   T-4451-H Iron 2     P-7011-1   T-4451-H Iron 2     P-7011-1   T-4451-H Iron 2     P-7011-1   T-4451-H Iron 2		6699-J	Formaldehyde 3
6980-01         6999         DPD 1R           6905         DPD 3R           6899         DPD 4R           6915         Phenol Red           7001-NJ-01         P-6740-H         DPD 1A           P-6741-H         DPD 1B         P-6743-H           P-6743-H         DPD 3         P-7026-H           P-7026-H         Phenol Red         6994-J           6994-J         Cyanuric Acid         P-7028-G           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6460-E         Base Demand           P-6741-H         DPD 1A           P-6741-H         DPD 1B           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-259-H         Hard 1           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-7031-H	6896-01	6999-J	DPD 1R
6904   DPD 2R     6905   DPD 3R     6899   DPD 4R     6915   Phenol Red     7001-NJ-01   P-6740-H   DPD 1A     P-6741-H   DPD 1B     P-6743-H   DPD 3     P-7026-H   Phenol Red     6994-J   Cyanuric Acid     P-7028-G   Alk 1 Indicator     P-6111-H   Alk Titrant     P-4259-H   Hard 1     P-7030-G   Hard 2     P-7031-H   CaHard Titrant     P-6068-E   Acid Demand     P-6460-E   Base Demand     P-6741-H   DPD 1A     P-6741-H   DPD 1B     P-6743-H   DPD 3     P-6743-H   DPD 3     P-7026-H   Phenol Red     6994-J   Cyanuric Acid     P-7028-G   Alk 1 Indicator     P-6111-H   Alk Titrant     P-4259-H   Hard 1     P-7028-G   Alk 1 Indicator     P-6111-H   Alk Titrant     P-4259-H   Hard 1     P-7030-G   Hard 2     P-7031-H   CaHard Titrant     P-6068-E   Acid Demand     P-6068-E   Acid Demand     P-6460-E   Base Demand     P-6460-E   Base Demand     P-4450-E   Iron 1     T-4451-H   Iron 2     P-6446-E   Copper 1     70011-01   6905-6999   DPD 1, DPD 3     Tout   DPD 1, D		6915-H	Phenol Red
6905   DPD 3R	6980-01	6999	DPD 1R
6899   DPD 4R		6904	DPD 2R
February   February		6905	DPD 3R
7001-NJ-01         P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-6743-H         DPD 1A           P-6743-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999 <t< th=""><th></th><th>6899</th><th>DPD 4R</th></t<>		6899	DPD 4R
P-6741-H   DPD 1B    -6743-H   DPD 3    -7026-H   Phenol Red    -6994-J   Cyanuric Acid    -7028-G   Alk 1 Indicator    -6111-H   Alk Titrant    -4259-H   Hard 1    -668-E   Acid Demand    -6741-H   DPD 1A    -6741-H   DPD 1B    -6743-H   DPD 3    -7026-H   Phenol Red    -6994-J   Cyanuric Acid    -7028-G   Alk 1 Indicator    -7030-G   Hard 2    -7031-H   CaHard Titrant    -4259-H   Hard 1    -7030-G   Hard 2    -7031-H   CaHard Titrant    -6068-E   Acid Demand    -6460-E   Base Demand    -6450-E   Iron 1    -4451-H   Iron 2    -6446-E   Copper 1    -7011-01   6905-6999   DPD 1, DPD 3		6915	Phenol Red
P-6743-H   DPD 3    -7026-H   Phenol Red    -7028-G   Alk 1 Indicator    -7030-G   Hard 2    -7031-H   CaHard Titrant    -6068-E   Acid Demand    -6743-H   DPD 1A    -7026-H   Phenol Red    -7031-H   DPD 1B    -7031-H   DPD 1B    -7026-H   Phenol Red    -7026-H   Phenol Red    -7026-H   Phenol Red    -7028-G   Alk 1 Indicator    -7028-G   Alk 1 Indicator    -7028-G   Alk 1 Indicator    -7030-G   Hard 2    -7031-H   CaHard Titrant    -4259-H   Hard 1    -7030-G   Hard 2    -7031-H   CaHard Titrant    -4259-H   Hard 1    -7030-G   Hard 2    -7031-H   CaHard Titrant    -6068-E   Acid Demand    -6460-E   Base Demand    -6460-E   Base Demand    -4450-E   Iron 1    -4451-H   Iron 2    -6446-E   Copper 1    -7011-01   6905-6999   DPD 1, DPD 3	7001-NJ-01	P-6740-H	DPD 1A
P-7026-H   Phenol Red		P-6741-H	DPD 1B
Cyanuric Acid    -7028-6		P-6743-H	DPD 3
P-7028-G Alk 1 Indicator P-6111-H Alk Titrant P-4259-H Hard 1 P-7030-G Hard 2 P-7031-H CaHard Titrant P-6068-E Acid Demand P-6460-E Base Demand P-6741-H DPD 1A P-6743-H DPD 3 P-7026-H Phenol Red 6994-J Cyanuric Acid P-7028-G Alk 1 Indicator P-6111-H Alk Titrant P-4259-H Hard 1 P-7030-G Hard 2 P-7031-H CaHard Titrant P-6068-E Acid Demand P-6460-E Base Demand P-6460-E Base Demand P-4450-E Iron 1 T-4451-H Iron 2 P-6446-E Copper 1 7011-01 6905-6999 DPD 1, DPD 3		P-7026-H	Phenol Red
P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		6994-J	Cyanuric Acid
P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-668-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-7028-G	Alk 1 Indicator
P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           7002-NJ-01         P-6740-H         DPD 1A           P-6741-H         DPD 1B         P-6743-H           P-6743-H         DPD 3         P-7026-H           P-7026-H         Phenol Red         6994-J           Cyanuric Acid         P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant         P-4259-H           P-4259-H         Hard 1         P-7030-G           P-7031-H         CaHard Titrant         P-6068-E           P-6460-E         Base Demand           P-4450-E         Iron 1         Iron 2           P-6446-E         Copper 1         P-6446-E           7011-01         6905-6999         DPD 1, DPD 3		P-6111-H	Alk Titrant
P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-4259-H	Hard 1
P-6068-E         Acid Demand           P-6460-E         Base Demand           7002-NJ-01         P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-668-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-7030-G	Hard 2
P-6460-E         Base Demand           7002-NJ-01         P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-7031-H	CaHard Titrant
7002-NJ-01         P-6740-H         DPD 1A           P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-6068-E	Acid Demand
P-6741-H         DPD 1B           P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-6460-E	Base Demand
P-6743-H         DPD 3           P-7026-H         Phenol Red           6994-J         Cyanuric Acid           P-7028-G         Alk 1 Indicator           P-6111-H         Alk Titrant           P-4259-H         Hard 1           P-7030-G         Hard 2           P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3	7002-NJ-01	P-6740-H	DPD 1A
P-7026-H       Phenol Red         6994-J       Cyanuric Acid         P-7028-G       Alk 1 Indicator         P-6111-H       Alk Titrant         P-4259-H       Hard 1         P-7030-G       Hard 2         P-7031-H       CaHard Titrant         P-6068-E       Acid Demand         P-6460-E       Base Demand         P-4450-E       Iron 1         T-4451-H       Iron 2         P-6446-E       Copper 1         7011-01       6905-6999       DPD 1, DPD 3		P-6741-H	DPD 1B
6994-J       Cyanuric Acid         P-7028-G       Alk 1 Indicator         P-6111-H       Alk Titrant         P-4259-H       Hard 1         P-7030-G       Hard 2         P-7031-H       CaHard Titrant         P-6068-E       Acid Demand         P-6460-E       Base Demand         P-4450-E       Iron 1         T-4451-H       Iron 2         P-6446-E       Copper 1         7011-01       6905-6999       DPD 1, DPD 3		P-6743-H	DPD 3
P-7028-G Alk 1 Indicator  P-6111-H Alk Titrant  P-4259-H Hard 1  P-7030-G Hard 2  P-7031-H CaHard Titrant  P-6068-E Acid Demand  P-6460-E Base Demand  P-4450-E Iron 1  T-4451-H Iron 2  P-6446-E Copper 1  7011-01 6905-6999 DPD 1, DPD 3		P-7026-H	Phenol Red
P-6111-H       Alk Titrant         P-4259-H       Hard 1         P-7030-G       Hard 2         P-7031-H       CaHard Titrant         P-6068-E       Acid Demand         P-6460-E       Base Demand         P-4450-E       Iron 1         T-4451-H       Iron 2         P-6446-E       Copper 1         7011-01       6905-6999       DPD 1, DPD 3		6994-J	Cyanuric Acid
P-4259-H       Hard 1         P-7030-G       Hard 2         P-7031-H       CaHard Titrant         P-6068-E       Acid Demand         P-6460-E       Base Demand         P-4450-E       Iron 1         T-4451-H       Iron 2         P-6446-E       Copper 1         7011-01       6905-6999       DPD 1, DPD 3		P-7028-G	Alk 1 Indicator
P-7030-G       Hard 2         P-7031-H       CaHard Titrant         P-6068-E       Acid Demand         P-6460-E       Base Demand         P-4450-E       Iron 1         T-4451-H       Iron 2         P-6446-E       Copper 1         7011-01       6905-6999       DPD 1, DPD 3		P-6111-H	Alk Titrant
P-7031-H         CaHard Titrant           P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-4259-H	Hard 1
P-6068-E         Acid Demand           P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-7030-G	Hard 2
P-6460-E         Base Demand           P-4450-E         Iron 1           T-4451-H         Iron 2           P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-7031-H	CaHard Titrant
P-4450-E     Iron 1       T-4451-H     Iron 2       P-6446-E     Copper 1       7011-01     6905-6999     DPD 1, DPD 3		P-6068-E	Acid Demand
T-4451-H Iron 2 P-6446-E Copper 1 7011-01 6905-6999 DPD 1, DPD 3		P-6460-E	Base Demand
P-6446-E         Copper 1           7011-01         6905-6999         DPD 1, DPD 3		P-4450-E	Iron 1
<b>7011-01</b> 6905-6999 DPD 1, DPD 3		T-4451-H	Iron 2
		P-6446-E	Copper 1
P-7026-G Phenol Red	7011-01	6905-6999	DPD 1, DPD 3
		P-7026-G	Phenol Red

Kit Code	Reagent #	Description
7013	P-6740-G	DPD 1A
	P-6741-G	DPD 1B
	P-6743-G	DPD 3
	P-7026-G	Phenol Red
	6994-HRB	Cyanuric Acid
	P-6068-E	Acid Demand
	P-6460-E	Base Demand
	P-7028-G	Alk 1 Indicator
	P-6111-G	Alk Titrant
	P-4259-G	Hard 1
	P-7030-G	Hard 2
	P-7031-G	CaHard Titrant
7056-01	7125-H	Polyquat Titrating
	2258-E	Phenolphthalein
	6090-E	Sulfuric Acid
	3995-G	Toluidine Blue O
	7117-H	EDTA
7057-01	3996-H	Quat Titrating
	3995-G	Toluidine Blue O
	7117-H	EDTA
	2258-E	Phenolphthalein
	6090-E	Sulfuric Acid
7064-01	6289-H	Sulfuric Acid
	6289WT-H	Sulfuric Acid
	5168-J	Sodium Hydroxide
	2246-E	Phenolphthalein
	7114-H	Glutaraldehyde Test Powder
	5175PT-K	Distilled Water
7101-01	7102-G	Nitrite 1
	7103PS-H	Nitrite 2
7101-DR-01	7102-G	Nitrite 1
	7103DR-H	Nitrite 2
7105-03	7939PS-G	Hypochlorite A
	2790-H	Hypochlorite D
	6809-D	Potassium Iodide
7132-01	2258-E	Phenolphthalein
	6385-D	Starch Acid
	2779WT-H	lodide lodate
7138-DB-01	6809-D	Potassium Iodide
	4170WT-G	Starch Indicator
	7139-H	Peroxide Titrant
	7140-H	Acidified Catalyst
7143-01	2780-D	T.C. Indicator
	6025-H	Hydrochloric Acid
	2781WT-H	T.C. Titrant

Kit Code	Reagent #	Description
7144-01	4483-G	Hardness 5
	4485-E	Hardness 6
	2782WT-H	Free Chelant Titrant
7150-01	6809-D	Potassium lodide
	4170WT-G	Starch Indicator
	7456WT-H	Peroxide Titrant
	7140-H	Acidified Catalyst
7171-02	4483WT-G	Hardness 5
	4485-G	Hardness 6
	2783WT-H	Hardness 10
7172-02	6091WT-G	Hydrogen Peroxide
	4069WT-G	Chloride A
	6090WT-G	Sulfuric Acid
	2258-E	Phenolphthalein
	3824WT-G	Silver Nitrate
7175-01	7327-E	Sulfite A
	7328-E	Sulfite B
	7329PS-H	Sulfite C
7175-DR-01	7327-E	Sulfite A
	7328-E	Sulfite B
	7329DR-H	Sulfite C
7181-01	5649WT-G	Hydrochloric Acid
	2258-E	Phenolphthalein
	6117-G	Barium Chloride
7182-01	5648-G	Sodium Hydroxide
	2258-E	Phenolphthalein
7183-02	6410-E	Ferroin
	2789WT-G	Can Solution
7191-02	6141WT-G	Sulfuric Acid
	6410-E	Ferroin
	5650LWT-G	Hydrogen Peroxide
	6521-G	Potassium Iodide
	S-6155-H	Peracetic Acid Titrant
7196-01	6434WT-G	Hypochlorite
	4500WT-H	Chlorine 3
	6452-G	Hydrogen Peroxide 1
7240-02	2258-E	Phenolphthalein
	2786-E	Total Alkalinity
	7748WT-G	Sulfuric Acid
7246-02	2788WT-G	Hardness 2
	4483WT-G	Hardness 5
	4485-G	Hardness 6

Kit Code	Reagent #	Description
7250-02	2246-G	Phenolphthalein
	4250-BJ	Chlorine Test Papers
	4483-G	Hardness 5
	4485-G	Hardness 6
	2783WT-H	Hardness 10
	6323WT-H	Hydrochloric Acid
	6130WT-H	Hydrochloric Acid
7253-01	7254-E	lodine 1
	7255-E	lodine 2
	6406PS-H	lodine 3
7253-DR-01	7254-E	lodine 1
	7255-E	lodine 2
	6406DR-H	lodine 3
7297-DR-01	2246-E	Phenolphthalein
	4253DR-H	Carbon Dioxide B
7387-02	6130-E	Hydrochloric Acid
	4004-E	Sodium Hydroxide
	2850PS-H	Cyanide Buffer
	2794DS-C	Cyanide CL
	2793DS-C	Cyanide Indicator
	2955	pH Test Paper
7391-02	7393-G	Zinc Rgt.
	7361-E	Zinc Conditioning
7417-02	7393-G	Zinc Rgt.
	7361-E	Zinc Conditioning
7436-01	3870-E	Alkalinity 1
	3869-E	Alkalinity 2
	4493DR-H	Alkalinity Titration B
	4259-E	Sod. Hydroxide
	T-5250-H	Calcium Hardness
	4487DR-H	Hardness 7
	V-6282-H	Phosphate Acid
	V-6283-C	Phosphate Reducing
	2881-H	pH 7.00 Buffer
7446-01	6446-G	Copper 1
	6899-J	DPD 4R
	7825-D	Aminoantipyrine
	7826-H	Ammonium Hydroxide
	7827-J	Pot. Ferricyanide
	7444-H	Detergent 1
	6037-J	Detergent 2
	7445-J	Detergent 3
7459-02	7460-E	Salinity A
	7461DR-G	Salinity B

Kit Code	Reagent #	Description
7514-01	6807-C	DPD 1
	6905-H	DPD 3R
	3992WT-H	Chlorine/Bromine
7516-DR-02	5115PT-H	Deionized Water
	6073-G	Barium Chloride
	2246-E	Phenolphthalein
	6251DR-G	Hydrochloric Acid
7519-01	7520-H	Standard Turbidity
7530-DR-01	6130-E	Hydrochloric Acid
	6155-E	Sodium Thiosulfate
	6165-D	Xylenol Orange
	6158PS-H	Thorium Nitrate
	3929-E	Fluoride Inhibitor
7530-WT-01	6130-E	Hydrochloric Acid
	6155-E	Sodium Thiosulfate
	6165-D	Xylenol Orange
	6158WT-H	Thorium Nitrate
	3929-E	Fluoride Inhibitor
7625-01	6155-E	Sodium Thiosulfate
	6323-E	Hydrochloric Acid
	3964-E	Chrome Azurol S
	3965-H	Thorium Nitrate
	6130-E	Hydrochloric Acid
7625-DR-01	6155-E	Sodium Thiosulfate
	6323-E	Hydrochloric Acid
	3965-H	Thorium Nitrate
	6130-E	Hydrochloric Acid
	3964-E	Chrome Azurol S
7634-DR-01	2202-G	Meta Cresol Purple
	6130-E	Hydrochloric Acid
	6155-E	Sodium Thiosulfate
	6165-D	Xylenol Orange
	6158PS-H	Thorium Nitrate
7778-01	6456-H	Sulfate Turb
7787-01	4450-G	Iron 1
	4451-S	Iron 2
7791-DR-02	2786-E	Total Alkalinity
	6111DR-H	Sulfuric Acid
	6248DR-H	Sodium Hydroxide
	4483-E	Hardness 5
	4484-J	Hardness 6
	4487DR-H	Hardness 7
7831-01	4487DR-H 7833-E	Tannin 1

Kit Code	Reagent #	Description
7884	7885-H	Sulfuric Acid
	7886-J	Sodium Hydroxide
	2246-E	Phenolphthalein
	6566-G	Ammonium Persulfate
	5115PT-J	Deionized Water
	7888-D	Boiling Stones
7894-01	7939PS-G	Hypochlorite A
	7940-G	Hypochlorite B
	7941PS-H	Hypochlorite C
8225-01	8228-H	TK-10 Rgt.
8226-01	8230PA-H	Chl. Cleaner 1
	8233PA-H	Chl. Cleaner 2
	8234PA-H	Chl. Cleaner 3

## Beakers - BOD

#### **Beakers**

Glass beakers have thick, slightly flared top, with spout designed for excellent pouring. Designed from ASTM specifications E960, type I requirements. All sizes have marking area and white graduated volume scale.

Thomas® Polypropylene Beakers are polypropylene with superior chemical resistance. Ribbed for easy stacking. Meets ISO/DIS 7056 Standards for Lab Plastic Accuracy. Autoclavable.

Glass Order Code	Plastic Order Code	Description
0410	0944	Beaker, 50 mL
0415	0896	Beaker, 100 mL
0596	_	Beaker, 200 mL
0411	0609	Beaker, 250 mL
2-2024	2-2013	Beaker, 400 mL
2-2027	_	Beaker, 1,000 mL



## Flask/BOD Bottle Brush

Allows access to entire inside surface of flasks or BOD bottles. Black hog bristle brush 4.25 inches. long mounted on a flat steel shank attached to a pivoting shaft.



Order Code	Description
1929-R35	Brush, 16 inch, Pk 3

### **Imhoff Cone Brush**

Conical shape with tufted bristle and sturdy twisted wire handle. Black bristles combine with stiff fibers, shaped to fit into cone tip. Bristle part 9 in. long, 4 in. top diameter, 1.5 inch bottom diameter, tip 3 inch long, length including handle 30 inch.



Order Code	Description
1930-D10	Brush, Imhoff cone

## **Burets**

Twelve inch high, self-leveling, glass burets are graduated from 0–10 mL in 0.1 mL increments. Available with rubber squeeze valve, glass stopcock, or Teflon® stopcock. Buret-24 assembly includes empty 250 mL bottle of natural, low density polyethylene which attaches to 24 mm screwcap on buret stem. Buret-28 assembly has 250 mL bottle of amber polyethylene and 28 mm cap. Bottle serves as titrant reservoir; a gentle squeeze forces titrant into buret, where it automatically levels on 0 mL mark at top of scale.



Buret Type	Order Code With Poly Bottle	Order Code With Amber Bottle	Order Code Buret & Caps Only
Rubber Squeeze	0847-24	0847-28	0427
Glass Stopcock	0827-24	0827-28	0826
Teflon Stopcock	0996-24	0996-28	0997

## **Bod - Cleaners**

### Cleaners

## Alconox® Biodegradable Cleaning Compound

Mild, odorless, non-toxic powdered wetting agent and detergent for cleaning glassware, porcelain, metal, plastic, or rubber. Suitable for use in ultrasonic cleaners. Usual dilution 1 tablespoon to 1 gallon water.



Order Code	Description
2902-G05	Alconox, 4 lb Box

## Kimberly-Clark Kimwipe® Absorbent Light-Duty Wiper

Single-ply premium lab wiper for extra low-lint performance. Won't scratch delicate surfaces. LINTGUARD® polyshield reduces lint and electrostatic discharge when dispensing. Gently absorbent for light liquid pickup.



Order Code	Description
2-2069	4.5 x 8.5 single-ply in dispensing box, 280 sheets

### **COD** Heater

120V and 230V, 12-tube capacity. This COD heater block features digital microprocessor control, programmable time and temperature settings, and a dual LED display to monitor both temperature and timer. Perfect for COD, Total Phosphorus, and Total Nitrogen testing PLUS other tests requiring digestion. See page 17 for additional specifications.

Temperature:	30-200°C
Timer:	0-999 minutes
Vial Capacity:	12 (16 mm tubes)
Stability:	±0.1°C@100°C
Weight:	3.6 kg
Dimensions	310 x 250 x 80mm (LxWxH)
CE Mark:	Yes
Oven Temp Cutoff:	212°C



Order Code	Description
5-0102	COD Heater Block, 120V
5-0102-EX2	COD Heater Block, 230V

## Cleaners - Coliform

### Coliform

## Thomas<sup>®</sup> Coliform Water Sample Bag

Twist tie top seals with a 5 mm wide metal strip. Large textured label area. Meets EPA requirements for microbiological samples for potable water according to Standard Methods [Method 9060 A] or for NPDES compliance monitoring. Sterilized, with thiosulfate dechlorination tablet included. 100 mL fill line marked for easy reference.



Order Code	Description
1303-R90	Sample Bag, 100/bag

## Thomas<sup>®</sup> Coliform Water Sampling Vial

Improved sample container for microbiological testing. Ideal when filtration or the Colilert® method is used. Improved latching mechanism, won't open or leak in transit. Pre-sterilized, with thiosulfate tablet included. 120 mL fill line.



Order Code	Description
9853-Q41	Vial with tablet, Bg 100

## **Cylinders**

Glass cylinders have pouring spout and permanent fused white graduations. Plastic cylinders meet ASTM Class B, E1272 standards and have excellent heat and chemical resistance.



Plastic	Volume (MI)	Graduation Intervals (MI)	Glass Order Code
2-2076	10	0.2	0416
2-2077	25	0.5	0417
2-2078	50	1.0	0418
2-2079	100	1.0	0419
2-2080	250	2.0	_
2-2081	500	5.0	_
2-2082	1,000	10.0	_

## Cylinders - Flasks

## Filter Paper

All papers listed are sold 100 to a package.

Order Code	Description	Diameter (Cm)	Speed
Alhstrom			
0463	No. 642-27, Qual.	11	Slow
0465	No. 642, Qual.	9	Medium
Whatman			
0471	No. 2, Qual.	9	Medium
2-2098	No. 42, Ashless, Quan.	9	Slow
2-2100	No. 42, Ashless, Quan.	12.5	Slow

# Whatman® Quantitative Ashless Filter Papers

Suitable for precipitates that are ordinarily difficult to filter (2.5 mm particle retension). Acid Wash, Ash Content 0.007%. Highly retentive for very fine analytical precipitates. Recommended for use with vacuum.



Order Code	Description
2-2098	Filter Paper, 9 cm, Pk 100
4716-Q25	Filter Paper, 11 cm, Pk 100
2-2100	Filter Paper, 12.5 cm, Pk 100

## Filter/Syringe Assembly

For on-site collection of filtrates or filtered material from natural or industrial waters. Consists of 60 mL plastic syringe, dual check-valve, Delrin® filter holder with Luer slip outlet and clear flexible PVC tubing, 3 ft. long x 0.625 inch i.d. Tubing attaches to check-valve outlet. Syringe is calibrated to 0 to 60 mL and 0 to 2 oz.

Order Code	Description
1050	Complete filter/syringe assembly
0943	Syringe, 60 mL
1174	Check-valve
0598	Filter Holder
Membrane, 25 mm	
1103	0.45 micron, pkg. 100



### **Flasks**

## Nalge<sup>®</sup> Erlenmeyer Flasks

Glass flasks have thick-walled body with tapered contour to minimize chipping. Approximate volumes are indicated. Plastic flasks are polycarbonate with polypropylene screw closures; use for preparation and storage of culture media and culturing techniques.



Plastic Order Code	Description	Glass Order Code
2-2116	Flask, 125 mL	0431
2-2117	Flask, 250 mL	0433

## Flasks - Hydrometers

## Flasks, Corning Volumetric

Pyrex® Brand Class A. Heavy beaded, heavy tubing neck with snap cap. White block letters for easy readability.



Order Code	Description
2-2127	Flask, Volumetric, 50 mL
2-2128	Flask, Volumetric, 100 mL
2-2129	Flask, Volumetric, 500 mL

## Funnels, Plastic

Reinforced rim. Ridges outside and inside permit air passage and improve filtering efficiency. Withstand continuous use at temperatures up to 130°C.

Order Code	Description
2-2134	Funnel, 9 mL
2-2135	Funnel, 20 mL
0459	Funnel, 37 mL
2-2137	Funnel, 95 mL

## **Hydrometers**

### Specific Gravity 1 to 1.6

For liquids heavier than water. Approximate total length 305 mm, approximate length of graduate scale 135 mm, viewing range has scale approximately 150 mm long, and is made without conventional enlarged bulb at bottom. Tolerance ±1 scale division. Requires a cylinder 340x38 mm and approximately 250 mL of liquid.

Order Code	Description
2-2150	Hydrometer, 1.000-1.220: 0.002 interval
2-2151	Hydrometer, 1.200-1.420: 0.002 interval
2-2155	Hydrometer, 1.000-1.600: 0.005 interval

## Corning Pyrex® Brand Hydrometer Cylinder

Heavy wall construction. Large, hexagonal base, sealed to the cylinder body, increases stability.

Order Code	Description
2-2149	Hydrometer Cylinder, 38 x 340 mm



## Pipets - Stirrers & Accessories

## Magnifier

#### MacroLens

MacroLens with 5X magnification covers the entire petri dish. 4 inch diameter.



Order Code	Description
5508	MacroLens
5508-10	MacroLens 10 Pack



## Pipets: Corning Transfer Pipets

Pyrex® Class A. Tapered at both ends. Calibrated to deliver rated volume at 20°C.

Order Code	Description
2-2170	Transfer Pipet, 1 mL
2-2174	Transfer Pipet, 5 mL
2-2175	Transfer Pipet, 10 mL



## Pipets: Bel-Art® Safety Bulb

Tapered silicone seal provides airtight fit in all pipet sizes. 2-2164 comes complete with an elastic cord for dedicating pipettor to a specific reagent bottle.



Order Code	Description
2-2164	Safety Bulb
0395	Safety Bulb

## **Stirring Bars**

Octagon-shaped with rounded ends and molded pivot ring.



## Magnetic Stirring Bar Retriever

For insertion or removal of magnetic stirring bars. Overall length 11.5 inches.

Order Code	Description
2-2185	Stirring Bar, .3125 x 1 inch
2-2186	Stirring Bar, .3125 x 1.625 inch
2-2187	Magnetic Pick Up Rod

## Stopcock Grease - Thermometers

## Stopcock Grease

## Lubriseal® Stopcock Grease

For lubricating ground glass joints, glass, and metal stopcocks and valves, and for sealing desiccators, anaerobic culture jars, and similar utensils. Prevents the freezing of stopcocks, ground joints, etc. Low vapor pressure, and resists attack by acidic and alkaline solutions. Smooth textured, stable, free from vegetable or animal oil or silicone, and practically insoluble in water.

Order Code	Description
2-2158-H	Lubriseal, 75g tube



## Thermometer, Armored

A precision, NON-MERCURY thermometer encased in a protective, plastic jacket. Window opening views engraved graduation on white tubing which increases readability. Full range of -5° to 45° in 0.5° increments.

Order Code	Full Range
1066	-5° to 45°C in 0.5° increments

# Thermometer, Thomas<sup>®</sup> Switchable, °C/°F

8 in. thermometer with a wide range and digital display. Fits into cuvettes, test tubes, flasks, and beakers. Stainless steel probe is resistant to acids, bases, solvents, and most laboratory chemicals. Dual range of -58° to 302°F or -50° to 150°C. Digital resolution of 0.1° from -20° to 200°. Accuracy is ±1°C between -20° to 100°C. Readings updated every second. Operates continuously for over a year on a single replaceable silver-oxide battery (included). Supplied with protective case that can be used as a holder.



Order Code	Description
9329-H01	Switchable Thermometer with Digital Display

## **Aquaculture Testing Products**

#### Code 1612

Test kits and instrumentation for critical water quality control of aquarium systems. Designed for the hobbyist, retailer, and ornamental fish culturist. Test kits, instrumentation, and combination outfits designed for fish farms, hatcheries, and research institutions. Equipment designed for monitoring water quality conditions on-site and at benchtop locations.

#### Science Education Products

#### Code 1590

Practical, "hands-on" test equipment for air, soil and water chemistry students in elementary, secondary, vocational, outdoor and college science programs.

## Pool & Spa Water Test Equipment

#### Code 1634

A complete line of test kits, combination outfits and labs for pool professionals, public pool or spa operators, and private pool or spa owners.

#### **Product Price List**

#### Code 1645

This "component price list" gives price and ordering information on all standard LaMotte reagents, labware, apparatus and accessories. Reagents are listed in kit-size and bulk containers.

## **Soil Testing Products**

#### Code 1652

Field and laboratory test equipment for measurement of soil nutrients and soil pH. For agricultural soils, greenhouses, gardens, dairy sanitation, aquaculture and hydroculture.

## **Water Conditioning Testing Products**

#### Code 1650

Softener sales demonstration outfits and other specialized test equipment for the point-of-use water treatment industry.

## Food & Beverage Safety Testing Products

#### Code 1658

A comprehensive collection of test kits, test strips, and instruments for use in Industrial and Food/Beverage applications.



## A Study of Water Quality

#### Dr. Charles E. Renn; 46 pages

Examines the "life cycle" of water from its occurrence in nature to its treatment for domestic and industrial use, with emphasis on such water quality problems as scaling, corrosiveness, taste, and turbidity.

Order Code 1532

## A Laboratory Manual for Marine Science Studies

#### Staff, LaMotte Company; 32 pages

Test procedures and background information on sampling and analysis in salt water environments - oceans, bays, marine estuaries, and salt marshes.

Order Code 1587

## Chemistry & Control of Modern Chlorination

#### Dr. A.T. Palin; 64 pages

The process of chlorination and principal methods of chlorine testing. Written by a leading international authority on chlorine measurement.

Order Code 1597

### Investigating Water Problems

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Discusses 25 chemical factors of water quality analytical procedures for their measurement and interpretation of test results.

Order Code 1589

## Limnology: An Introduction to the Fresh Water Environment

### William A. Amos; 40 pages

Discusses biological, chemical, and physical processes in ponds, lakes, swamps, streams, and rivers - stream dynamics, plant zonation, the succession of ponds, the energy cycle of ponds, etc.

Order Code 1593

#### **Plant Nutrition Studies**

#### Dr. Robert Stegner; 76 pages

Discusses the study and practice of hydroponics - plant culture in soilless solutions - and includes a series of laboratory investigations.

Order Code 1596

#### Monitor's Handbook

#### Staff, LaMotte Co.; 71 pages

A complete guide covering the importance of water quality of all types of natural waters. Gives guidance for watershed surveys, site location, sample collection, and choosing appropriate methods and equipment. Describes physical, chemical, and biological factors of water quality, and the analytical procedures for their measurement. Provides the basic program planning, data analysis, and reporting with conversion factors, glossary, and resource list. For individuals or groups starting a water quality monitoring program.

Order Code 1507

### Our Environment Battles Water Pollution

#### Dr. Charles E. Renn; 32 pages

Traces a theoretical river from its origin as a mountain brook to its discharge into a marine estuary, examining the chemical and biological changes that occur as the stream reacts to impurities from natural and industrial sources.

Order Code 1592

### Pool Mgr. Handbook

#### Staff, LaMotte Company; 60 pages

A 60 page text for entry level lifeguards or aquatic supervisors. Discussions on water balance, sanitation, analysis, and problem solving. Water treatment charts are provided

Order Code 1505

### A Study of Soil Science

#### Dr. Henry D. Foth; 44 pages

An introduction to soil formation, soil pH, mineral elements and plant nutrition, the life cycle of growing plants, and soil fertility management.

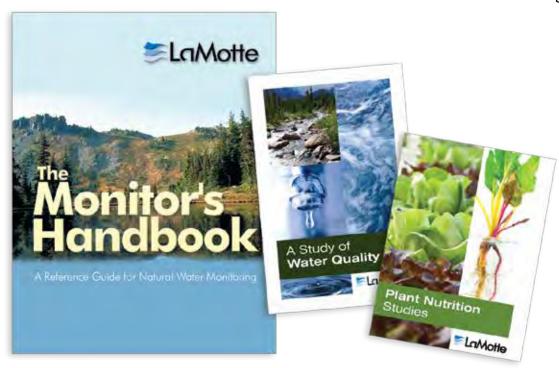
Order Code 1530

## The LaMotte Soil Handbook

## Staff, LaMotte Company; 60 pages

This "growers manual" discusses major and minor nutrients, trace elements, soil pH, organic matter, soil texture, etc. Includes lime and fertilizer recommendations for a variety of crops and plants.

Order Code 1504



## LaMotte has available a large variety of standards to be used in many applications.

Primary Standards	Concentration	Order Code	Quantity (mL)	Shelf Life
Ammonia Nitrogen	100 ppm	3871-H	60	2 yrs.
Chlorine	250 ppm	6973-H	60	6 mo.
Chlorine	250 ppm	6973-L	475	6 mo.
Chlorine Equivalent	1000 ppm	3858-H	60	6 mo.
COD Equivalent	500 ppm	7589-L	475	2 yrs.
Color	500 cu	6058-H	60	3 yrs.
Color	500 cu	6058-L	500	3 yrs.
Conductivity/ TDS	84 μS/59 ppm	6312-L	500	1.5 yrs.
Conductivity/ TDS	718 µS/ 503 ppm	6417-J	120	1.5 yrs.
Conductivity/ TDS	718 µS/ 503 ppm	6417-L	500	1.5 yrs.
Conductivity/ TDS	718 µS/ 503 ppm	6417-N	3800	1.5 yrs.
Conductivity/ TDS	1413 μS/ 989 ppm	6354-J	120	1.5 yrs.
Conductivity/ TDS	1413 μS/ 989 ppm	6354-L	500	1.5 yrs.
Conductivity/ TDS	1413 µS/ 989 ppm	6354-N	3800	1.5 yrs.
Conductivity/ TDS	6668 μS/ 4668 ppm	6418-J	100	1.5 yrs.
Conductivity/ TDS	6668 μS/ 4668 ppm	6418-L	500	1.5 yrs.
Conductivity/ TDS	12880 μS/ 9016 ppm	6317-G	30	1.5 yrs.
Conductivity/ TDS	12880 μS/ 9016 ppm	6317-J	120	1.5 yrs.
Conductivity/ TDS	12880 μS/ 9016 ppm	6317-L	500	1.5 yrs.
Conductivity/ TDS	58640 μS/ 41048 ppm	6419-L	500	1.5 yrs.
Copper	100 ppm	6181-L	475	2 yrs.
Fluoride	1000 ppm	4154-H	60	1 yr.
Fluoride	1000 ppm	4154-L	500	1 yr.
Fluoride	1 ppm	2798-M	1000	2 yrs.
Hard Water	120 ppm	5617-L	500	3 yrs.
Ferric Iron	200 ppm	3860-H	60	1.5 yrs.
Nickel	1000 ppm	6196-H	60	2 yrs.
Nitrate Nitrogen	1000 ppm	5392-H	60	2 yrs.
рН	2.0	2856-L	500	1.5 yrs.
pH Buffer Tablets	4.0	3983A-H	50 Tabs	3 yrs.

Primary	0	Order	Quantity	01 15115
Standards	Concentration	Code	(mL)	Shelf Life
pH Buffer Tablets	4.0	3983A-J	100 Tabs	3 yrs.
pН	4.01	2866-J	120	1.5 yrs.
pН	4.01	2866-L	500	1.5 yrs.
рН	4.01	2866-N	3800	1.5 yrs.
pH Color Coded Red	4.01	3771-L	500	1.5 yrs.
рН	6.86	2808-L	500	1.5 yrs.
pH Buffer Tablets	7.0	3984А-Н	50 Tabs	3 yrs.
pH Buffer Tablets	7.0	3984A-J	100 Tabs	3 yrs.
рН	7.00	2881-H	60	1.5 yrs.
рН	7.00	2881-J	120	1.5 yrs.
рН	7.00	2881-L	500	1.5 yrs.
pН	7.00	2881-N	3800	1.5 yrs.
pH Color Coded Yellow	7.00	3772-L	500	1.5 yrs.
рН	8.0	2886-L	500	1.5 yrs.
рН	9.0	2891-L	500	1.5 yrs.
рН	9.18	2809-L	500	1.5 yrs.
pH Buffer Tablets	10.0	3985A-H	50 Tabs	3 yrs.
pH Buffer Tablets	10.0	3985A-J	100 Tabs	3 yrs.
рН	10.0	2896-J	120	1.5 yrs.
рН	10.0	2896-L	500	1.5 yrs.
pH Color Coded Blue	10.0	3773-L	500	1.5 yrs.
рН	11.0	2897-L	500	1.5 yrs.
рН	12.0	2898-L	500	1.5 yrs.
Phosphate PO <sub>4</sub>	1000 ppm	6184-L	475	1 yr.
Phosphate PO <sub>4</sub>	3080 ppm	5393-Н	60	2 yrs.
Phosphate PO <sub>4</sub>	3080 ppm	5393-L	475	2 yrs.
Phosphorus (Total)	1000 ppm	5393-Н	60	2 yrs.
Phosphorus (Total)	1000 ppm	5393-L	475	2 yrs.
Potassium	1000 ppm	6187-L	475	2 yrs.
Sulfate	2000 ppm	7120-H	60	2 yrs.
Turbidity 2020we	O NTU	1480	60	1 yr.
Turbidity 2020we	1 NTU	1450	60	1 yr.

LaMotte has available a large variety of standards to be used in many applications.

Primary Standards	Concentration	Order Code	Quantity [mL]	Shelf Life
Turbidity 2020t	O NTU	1440	60	1 yr.
Turbidity 2020t	1 NTU	1441	60	1 yr.
Turbidity 2020t	10 NTU	1442	60	1 yr.
Turbidity 2020t	100 NTU	1443	60	1 yr.
Turbidity 2020t	280 NTU	1444	60	1 yr.
Turbidity 2020i	O NTU	1440	60	1 yr.
Turbidity 2020i	1 NTU	1446	60	1 yr.
Turbidity 2020i	10	1447	60	1 yr.
Turbidity 2020i	100	1448	60	1 yr.
Turbidity 2020i	280	1449	60	1 yr.
Turbidity 2020we	10 NTU	1451	60	1 yr.
Turbidity 2020we	100 NTU	1452	60	1 yr.
Turbidity 2020wi	O NTU	1480	60	1 yr.
Turbidity 2020wi	1 NTU	1453	60	1 yr.
Turbidity 2020wi	10 NTU	1454	60	1 yr.
Turbidity 2020wi	100 NTU	1455	60	1 yr.
Turbidity Formazin	4000 NTU	6195-H	60	1 yr.
Zinc	100 ppm	5394-L	475	2 yrs.

Secondary Standards	Concentration	Order Code	Quantity (mL)	Shelf Life
Chlorine DPD	0, 0.2, 1.0, 2.5 ppm	4140-03	10	1 yr
Smartcheck	Various Absorbance Units	4141-01	10	1 yr



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