TESTING PRODUCTS FOR

INDUSTRIAL & COMMERCIAL WATER TREATMENT

Products Designed and Manufactured in the USA

taylor

the most trusted name in water testing

www.taylortechnologies.com

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K-1501

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Our business hours are 8:00 a.m.–5:00 p.m. Eastern Time, Monday through Friday, except major holidays. Visit our website at www.taylortechnologies.com.

ISO 9001:2008 certified

TTi® 3000
Colorimeter

FOR WATER TREATMENT PROFESSIONALS

GET RELIABLE PERFORMANCE
AND USER-FRIENDLY FEATURES

*The **TTi® 3000 Colorimeter (M-3000)** from Taylor Technologies offers water analysts reliable results plus a variety of features to maximize your productivity. This handheld, multiwavelength, microprocessor-controlled, menu-driven, direct-readout instrument employs LED light sources. Its portability and data-logging capabilities make it well suited for use in the field in addition to the laboratory.*

Dependable chemistries from the most trusted name in water testing:

- serving industrial water treaters with distinction since 1930
- manufacturer's Quality Management System is certified to ISO 9001:2008
- Accuracy Check Kit for quality control
- toll-free technical support from both chemists and programmers

Durable construction:

- custom-crafted for use under harsh conditions: chemical-, impact-, and heat-resistant housing; sure-grip molding; liquid crystal display protected from abrasion and chemicals
- IP67-certified as dust tight and immersible to 1 meter for 30 minutes
- complies with Canadian ICES-003 and European CE mark directives
- **5-YEAR WARRANTY**

Ergonomic design:

- fits neatly to hand; only weighs 21 ounces
- runs on batteries and AC power (batteries and power adapter included)
- automatic wavelength selection
- intuitive navigation using directional arrows
- graphical LCD with anti-glare coating offers excellent contrast and readability
- adjustable backlighting; a timeout feature conserves battery life
- tests organized alphabetically, not by a test number
- create your own menus of favorite tests and favorite series of tests
- auto-read function on test timer—never miss another test result because you got preoccupied with other tasks!
- second, general-purpose timer
- adjustable automatic shutoff

Preprogrammed tests for commercial and industrial applications:

- 30+ analytes (several with multiple ranges), including all the most popular boiler and cooling water tests
- lifetime **FREE** upgrades as new test methods are developed
- accepts 8 additional user-developed tests of 12 data points each
- read results in Concentration, % Transmission, or Absorbance
- **watch video demonstrations of tests on our website**

Data interface software makes managing account records simple:

- store up to 100 date- and time-stamped test results in memory
- USB cable provided for data transfer to your PC or laptop
- Windows-based *TTi® Colorimeter Series PC App* included in meter purchase
- dedicated website for software support

Never miss seeing your timed-test result with the **TTi 3000**'s auto-read function.

M-3000 COMPONENTS:

(1) TTi Colorimeter, model 3000 for industrial water treaters

(1) Quick-Start Guide

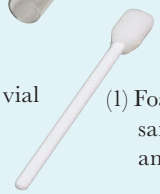
(1) Rigid foam insert inside; use with optional soft case

(1) AC power adapter

(2) 25 mm sample cells

(2) 15 mm sample cells

(1) 50 mL dilution vial



(1) Foam brush for cleaning sample cell compartment and sample cells

(1) USB cable

(4) AA alkaline batteries
(also runs on AA lithium batteries)

PLUS:

- *TTi® Colorimeter Series PC App*
- Online *TTi® Colorimeter Series User's Manual*
- Lifetime FREE access to new test files (no need to return meter to manufacturer)

TTi® 3000

Colorimeter

OPTIONAL ACCESSORIES

▲ **#9502 Hard Carrying Case (closed)**

▲ **#9502 Hard Carrying Case (open)**

◀ **K-8000 TTi® Colorimeter Series Accuracy Check Kit**

Verify instrument performance at all wavelengths using five secondary absorbance standards.

#7146 Soft Carrying Case ▶

Heavy-duty 600 denier polyester, sized to accommodate the rigid foam insert the M-3000 ships in.

SPECIFICATIONS

Dimensions	
Size	3-1/2 in. wide x 8-1/2 in. deep x 3-1/2 in. high
Weight (with batteries)	21 oz.
Liquid Crystal Display	160 x 100 resolution & polarized
Sample Cell Compartment	Accommodates 25 & 15 mm round sample cells
Part #9502 Hard Carrying Case (purchase separately)	20 in. wide x 15-5/8 in. deep x 5-1/2 in. high
Part #7146 Soft Carrying Case (purchase separately; use with rigid foam shipping insert)	11 in. wide x 7 in. deep x 4-5/8 in. high

Performance	
Photometric Range	0–2 ABS
Photometric Accuracy	±0.005 ABS @ 1.0 ABS nominal
Photometric Linearity	±0.002 ABS (0–1 ABS)
Repeatability	±0.005 ABS (0–1 ABS)
Resolution	0.001 ABS (0–1 ABS)
Wavelength Filters	420, 470, 520, 570, 620 & 660 nm
Wavelength Accuracy	±1 nm
Wavelength Bandwidth	10 nm ±1 nm
Stray Light	< 1.0%

Instrument Rating	
Power Source	4 x AA 1.5V alkaline or lithium batteries, AC power adapter, or USB cable
Battery Life (w/o backlight)	4 months (typical use, 12 tests/day, 5 days/week) w/ low battery indicator
Max Current	100 mA @ 5VDC
AC Power Adapter Input	100–240 VAC, 50/60 Hz
Input and Output Connections	Mini-B female USB port for data transfer and connection to AC power adapter or USB cable
Environmental Conditions	Operational temperature range: 32°F–122°F (0°C–50°C)

Minimum System Requirements for PC App	
CPU	Pentium III or better
RAM	500 megabytes
Available Hard Disk Storage	30 megabytes
Operating System	Windows XP, Windows Vista, or Windows 7 (compatible with 32-bit and 64-bit systems)

AVAILABLE TESTS

Kit No.	Analyte	Range(s)	Comment
K-8024	Alkalinity, Total	0–250 ppm $CaCO_3$	no interference from biguanide up to 50 ppm
K-8038	Ammonia-Nitrogen	0–1.00 ppm NH_3-N	
K-8033	Azole	0–25.0 ppm TT or BT	results as tolyltriazole or benzotriazole; SteriPEN UV Light (#6656), SpeedStir (#6100), and Spinvane Stirring Bar (#6657) required for test; purchase separately or with reagents as K-8033-AC
K-8041	BlueTrace (6120)	1.0–10mg/L PCT 6120	
K-8018	Boron	0–2.00 ppm B	color development timing is critical; auto-read function removes operator error
K-8002	Bromine, Total	0–10.00 ppm or 0–20.0 ppm Br_2 (uses DPD/P)	no powder clumping, no cloudiness
K-8001	Chlorine, Free & Total	0–4.00 ppm, 0–8.0 ppm, or 0–10.0 ppm Cl_2 (uses DPD/P)	no powder clumping, no cloudiness
K-8039	Chlorine Dioxide	0–8.0 ppm ClO_2	
K-8012	Copper	0–3.00 ppm Cu	
K-8013	Copper, Free	0–0.200 ppm Cu	
K-8043	Copper, Total	0–4.5 ppm Cu	
K-8032	Cyanuric Acid	7–120 ppm CYA	color development timing is critical; auto-read function removes operator error
K-8045	Filming Amine	0–8.0 ppm ODA	
K-8026	Hardness, Calcium	0–4.00 ppm $CaCO_3$	using only 1 sample cell reduces error from contaminated glassware; simplified procedure
K-8030	Hardness, Calcium	0–800 ppm $CaCO_3$	
K-8022	Hardness, Total	0–4.00 ppm $CaCO_3$	using only 1 sample cell reduces error from contaminated glassware; simplified procedure
K-8029	Hardness, Total	0–500 ppm $CaCO_3$	includes a test for NaCl for pools/spas that utilize salt systems to produce chlorine
K-8015	Hydrazine	0–1.50 ppm N_2H_4	only 2 minutes to color development
K-8020	Hydrogen Peroxide	0–2.00 ppm H_2O_2; by dilution: 2–20 ppm, 20–100 ppm, or 100–125 ppm H_2O_2	
K-8009	Iron	0–4.00 ppm Fe	
K-8010	Iron, Ferrous	0–3.00 ppm Fe^{2+}	
K-8011	Iron, Total	0–0.300 ppm Fe	perfect for testing steam condensate
K-8044	Iron, Total	0–3.00 ppm Fe	
K-8034	Manganese	0–0.80 ppm Mn	
K-8017	Manganese	0–30.0 ppm Mn	
K-8003	Molybdenum	0–3.30 ppm Mo	
K-8028	Molybdenum	0–60.0 ppm Mo	
K-8031	Monopersulfate	0–10.0 ppm Cl_2	active ingredient in DuPont Oxone
K-8035	Nitrate	0–44 ppm NO_3-	
K-8021	Nitrite	0–150 ppm NO_2-; by dilution: 150–1500 ppm NO_2-	only 2 minutes to color development
K-8016	Oxygen Scavenger	0–1.000 ppm Carbo.; 0–0.700 ppm DEHA; 0–2.450 ppm Eryth.; 0–2.000 ppm Hydro.; 0–3.000 ppm MEKO	
K-8027	pH	6.50–8.50	employs liquid, not tablets
K-8027AB	pH (with Acid & Base Demand)	6.50–8.50	
K-8005	Phosphate	0–3.00 ppm (20–3000 ppb) PO_4^{3-}	
K-8004	Phosphate	0–70.0 ppm PO_4^{3-}	
K-8014	Phosphonate	0–30.0 ppm PO_4^{3-}	SteriPEN UV Light (#6656) required for test; purchase separately or with reagents as K-8014-AC
K-8006	Polymer, Free	0–20 ppm or 20–500 ppm PAA (polyacrylic acid)	
K-8008	Silica	0–4.00 ppm SiO_2	
K-8007	Silica	0–60.0 ppm SiO_2	5-minute reaction time + 2-minute color development vs. much longer with others
K-8023	Sodium Chloride (salt)	0–80 ppm NaCl; by dilution: 75–150 ppm, 150–500 ppm, 500–2000 ppm, or 2000–8000 ppm NaCl	
K-8025	Sulfide	0–1.00 ppm S^{2-}	only 1-minute test time
K-8036	Turbidity	10-400 FAU	
K-8019	Zinc	0–3.00 ppm Zn	no cyanide, cyclohexanone, or formaldehyde used; no need to adjust sample pH; minimal or no interference from most metals

FREE
UPGRADES TO METER SOFTWARE AS NEW TEST METHODS ARE DEVELOPED

Portable Meters

M-6530

The Myron L TechPro II TPH1 provides reliable readings for TDS, conductivity, pH, and temperature in two easy steps. It's ideal for water treatment testing and other industrial and commercial applications. The TPH1 is waterproof and buoyant, weighs only 11.2 oz.

TPH1 SPECIFICATION	TDS	CONDUCTIVITY	pH	TEMPERATURE
Range	0–9999 ppm; 10–20.00 ppt in 3 autoranges	0–9999 µS; 10–20.00 mS in 3 autoranges	0–14	32°F–160°F/ 0°C–71°C
Accuracy	±1%	±1%	±0.02	±0.1°F/°C
Temperature Compensation		automatic to 77°F/25°C		
Power		9V Alkaline Battery (User-replaceable)		

*Calibration solutions, K-6530-RP, sold separately in reagent pack.

M-6540

Lightweight but durable, the Myron L 512T5 meter can determine the conductivity of almost any solution and converts it directly into a reading of parts per million of total dissolved solids (TDS). It provides fast readings and contains a built-in cell that is automatically temperature-compensated. The meter features a 2.5-inch taut-band, shock-resistant readout. Very stable circuitry means minimal recalibration. The 512T5 weighs 1 lb.

512T5 SPECIFICATION	TDS
Range	0–5000 ppm
Accuracy	±2% full scale and repeatability of ±1%
Temperature Compensation	automatic to 77°F/25°C
Power	9V Alkaline Battery (User-replaceable)

*Calibration solutions, K-6540-RP, sold separately in reagent pack.

M-6542

The dual-range Myron L PoolMeter 512T5D displays both TDS and sodium chloride (salt) values. It's a great instrument for making differential readings in high-salt pools and spas equipped with a chlorine generator. The 512T5D is completely self-contained with a built-in cell cup and sensors (no cables to tangle!). Its circuitry is sealed against moisture. This unit weighs 1 lb.

512T5D SPECIFICATION	TDS	SODIUM CHLORIDE (SALT)
Range	0–5000 ppm	0–5000 ppm
Accuracy	±2% full scale; ±1% at calibration point	
Temperature Compensation	automatic to 77°F/25°C	
Power	9V Alkaline Battery (User-replaceable)	

*Calibration solutions, K-6542-RP, sold separately in reagent pack.

M-6560

Accuracy, repeatability, and a compact design set Myron L's **EP-10** conductivity meter apart from competitors' meters. Highlights include maximum protection for the internal pH and conductivity electrodes, a durable polyethylene cell cup, a shock-resistant 2.5-inch taut-band readout, minimal recalibration requirements, and a low-battery indicator. Automatic temperature compensation coupled with four micromho (microsiemen) ranges makes this instrument ideal for most water treatment applications. Note: Its low range will accurately test boiler condensate. The EP-10 weighs 1 lb.

EP-10 SPECIFICATION	CONDUCTIVITY
Range	0–10,000 µM
Accuracy	±2% of full scale and repeatability of ±1%
Temperature Compensation	Automatic to 77°F/25°C
Power	9V Alkaline Battery (User-replaceable)

*Calibration solutions, K-6560-RP, sold separately in reagent pack.

Portable Meters

Portable, extremely accurate, and simple to use, Myron L's ULTRAPEN pocket testers are an ideal choice for measuring parameters such as electrical conductivity, pH, ORP, salinity, TDS, and temperature. Simply press a button and then dip the pen into a solution. Within seconds the results are displayed. These rugged, waterproof, shock-resistant pens are designed with solution modes and measurement ranges that will work in a variety of water applications. All three pens use a high-capacity N-type battery (included with purchase).

M-6555

Myron L's ULTRAPEN PT1 measures electrical conductivity, salinity, TDS, and temperature and offers an accuracy of ±1% of reading, automatic temperature compensation, and autoranging.

M-6556

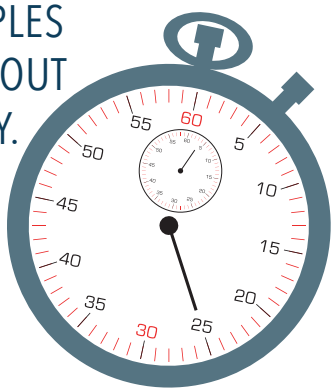
The PT2 measures pH, with an accuracy of ±0.01 pH units, and temperature, with an accuracy of ±0.1˚F/±0.1˚C. Highly stable microprocessor-based circuitry and automatic temperature compensation are just a few of the advanced features of the PT2 pocket tester. Use with Taylor's pH Buffer Solutions.

M-6557

Measuring ORP and temperature is a snap using Myron L's PT3. This high-performance instrument boasts three calibration options with automatic solution recognition, automatic temperature compensation, ORP accuracy of ±10 mV, and temperature accuracy of ±0.1˚F/±0.1˚C.

TAYLOR TECHNIQUE
tips #1

ANALYZE SAMPLES WITHOUT DELAY.



BOILER/COOLING WATER

Specialty Kits

Over the many years we've been doing business with industrial water treaters and power plant personnel, we've seen certain buying patterns emerge as our customers put together portable laboratories from the individual field tests we offer. The following test combinations have been preassembled for you, based on these patterns, as an alternative to building your own specialty kits.

If you do not spot the combination right for your particular testing regimen, please contact our Customer Service Department at 800-TEST KIT (837-8548) or customerservice@taylortechnologies.com to learn what other options are available. Some restrictions apply.

2 POPULAR PARAMETERS

K-1542

A combination of two drop-count titrations, M alkalinity and total hardness. Total hardness test includes inhibitors to prevent metal interference. Titrations do not require the ability to match colors, only the ability to see the permanent color change at the endpoint of the reaction. This combination kit comes in a custom-molded, durable plastic case providing safe storage for the tests.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1542	Alkalinity, M	Drop Test	Methyl orange	1 drop = 10 ppm as $CaCO_3$	9198G	R-0637 R-0724
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	9198B	R-0618B R-0620B R-0683

K-1640

An economical solution for the small operator, this kit contains a sample tube and reagents for four basic drop-count titration tests to monitor low-pressure steam boilers. Contents are packaged in a durable 11" w x 6" h x 5" d blue polypropylene carrying case with handle.

FOR THE SMALLER OPERATOR

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1640	Alkalinity, P/T	Drop Test	Phenolphthalein	1 drop = 50 ppm as $CaCO_3$	9198G	R-0638 R-0645 R-0736
	Chloride	Drop Test	Argentometric	1 drop = 10 ppm Cl^-	9198O	R-0630 R-0638 R-0706 R-0736
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	9198B	R-0619 R-0620 R-0683
	Sulfite	Drop Test	Iodometric	1 drop = 10 ppm Na_2SO_3	9198W	R-0638 R-0699 R-0725

BOILER/COOLING WATER

Specialty Kits

MOST POPULAR

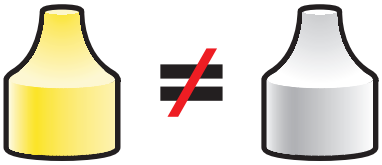
K-1645

A combination of four drop-count titrations (same tests as the K-1640 except the alkalinity drop equivalence is lower), plus a color comparison test for pH and an orthophosphate test employing the 2-Standard™ comparator, this best-seller comes in a 11" w x 6" h x 5" d blue polypropylene carrying case with handle. All reagents and apparatus needed to perform the tests are provided, including a plastic funnel, filter paper, and a test tube brush.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1645	Alkalinity, P/M and P/T	Drop Test	Phenolphthalein/methyl orange/blended indicator	1 drop = 10 ppm as $CaCO_3$	NA	9198G	R-0637 R-0638 R-0645 R-0687
	Chloride	Drop Test	Argentometric	1 drop = 10 ppm Cl^-	NA	9198O	R-0630 R-0638 R-0687 R-0706
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	NA	9198B	R-0619 R-0620 R-0683
	Orthophospate	2-Standard Comparator	Stannous chloride	30 and 60 ppm PO_4	9025	9021	R-0601 R-0602P
	pH (approx.)	Color Card Comparator	Long range	3.0 to 11.0 (1.0 increments)	5425	9017	R-1003U
	Sulfite	Drop Test	Iodometric	1 drop = 10 ppm Na_2SO_3	NA	9198W	R-0638 R-0699 R-0725

TAYLOR TECHNIQUE tips #2

TO AVOID CROSS-CONTAMINATION, NEVER SWITCH REAGENT BOTTLE CAPS.



K-1645 variations:

Don't need the chloride or pH tests? **Order K-1645-1**.
Only need the alkalinity, chloride, and hardness tests? **Order K-1645-2**.
The drop tests for alkalinity, hardness, and sulfite enough? **Order K-1645-3**.
Hardness and pH tests unnecessary? **Order K-1645-5**.
Orthophosphate and pH not needed? **Order K-1645-6**.

K-1645	P/M, P/T ALKALINITY	CHLORIDE	TOTAL HARDNESS	ORTHO-PHOSPHATE	PH	SULFITE
K-1645-1	×		×	×		×
K-1645-2	×	×	×			
K-1645-3	×		×			×
K-1645-5	×	×		×		×
K-1645-6	×	×	×			×

HIGH-PRESSURE STEAM BOILERS AND OPEN COOLING WATER SYSTEMS

K-1680

This kit offers six popular drop tests for monitoring high-pressure steam boilers and open cooling water systems, including our best-selling CAN method for nitrite, in an 11" w x 6" h x 5" d polypropylene carrying case with handle. All reagents and apparatus needed to perform the tests are provided, including pH test paper for determining phosphonate levels.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1680	Alkalinity, P/T	Drop Test	Phenolphthalein/blended indicator	1 drop = 10 ppm as $CaCO_3$	9198G	R-0638 R-0645 R-0724
	Chloride	Drop Test	Argentometric	1 drop = 10 ppm Cl^-	9198O	R-0630 R-0638 R-0686 R-0706
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	9198B	R-0619 R-0620 R-0683
	Nitrite	Drop Test	Cerric oxidation of nitrite (CAN)	1 drop = 40 ppm $NaNO_2$	9198R	R-0819 R-0820
	Phosphonate	Drop Test	Thorium nitrate/ xylenol orange (uses pH paper 1.8-3.8 for pH adjustment)	1 drop = 1 ppm ATMP	9198P	R-0686 R-0697 R-0802P R-0803 R-0805
	Sulfite	Drop Test	Iodometric	1 drop = 10 ppm Na_2SO_3	9198W	R-0638 R-0699 R-0725

K-1683

This kit offers five drop tests for key control parameters for boiler and cooling water testing. Everything needed to perform these tests is contained in the durable blue polypropylene carrying case measuring a compact 11" w x 6" h x 5" d.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1683	Alkalinity, P	Drop Test	Phenolphthalein	1 drop = 10 ppm as $CaCO_3$	9198	R-0638 R-0687
	Chelant, Free	Drop Test	Complexometric	1 drop = 10 ppm as NTA	9198	R-0620 R-0877 R-0878 R-0879
	Chloride	Drop Test	Argentometric	1 drop = 10 ppm Cl^-	9198	R-0630 R-0638 R-0687 R-0706
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	9198B	R-0619 R-0620 R-0683
	Sulfite	Drop Test	Iodometric	1 drop = 10 ppm Na_2SO_3	9198W	R-0638 R-0699 R-0725

Laundry Combination Kits

For testing water hardness, bleach strength, sour rinse pH, and more, we have what you need. Problems in water quality can be identified easily, allowing for the necessary adjustments to be made. The final outcome—optimized laundry results, improved equipment efficiency, and a reduced impact on the environment.

K-1615

An economical solution for laundry operators, this kit contains a combination of three drop-count titrations plus a color comparison test for pH. The kit comes in a 11" w x 6" h x 5" d blue polypropylene carrying case with handle. All reagents and apparatus needed to perform the tests are provided.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1615	Alkalinity, P/T	Drop Test	Phenolphthalein/blended indicator	1 drop = 10 or 50 ppm as $CaCO_3$	NA	9198G	R-0638 R-0645 R-0687 R-0736
	Chlorine (bleach)	Drop Test	Iodometric	1 drop = 0.05 or 0.5% available chlorine (Cl_2)	NA	9198Y	R-0664 R-0665S R-0666
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	NA	9198B	R-0619 R-0620 R-0683
	pH	Color Card Comparator	Long range	3.0–11.0 (1.0 increments)	5425	9017	R-1003U

K-1616

The K-1616 contains tests for key control parameters common to laundry water, alkalinity and chlorine, as well as tests for hardness, iron, and pH. Everything needed to perform these tests is contained in the durable blue polypropylene carrying case measuring a compact 11" w x 6" h x 5" d.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1616	Alkalinity (active)	Drop Test	Phenolphthalein/blended indicator	1 drop = 100 ppm as Na_2O	NA	9198G	R-0638 R-0645 R-0896
	Chlorine (bleach)	Drop Test	Iodometric	1 drop = 0.05 or 0.5% available chlorine (Cl_2)	NA	9198Y	R-0664 R-0665S R-0666
	Chlorine, Total	Visual Determination	OT	Yellow color indicates chlorine	NA	9198Y	R-0600
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 1 gpg as $CaCO_3$	NA	9198B	R-0683 R-0854
	Iron, Total	Visual Determination	Tripyridyl-s-triazine	Blue color indicates iron	NA	9198	R-0851 R-0852
	pH	Visual Determination	Wide range pH test papers	3–8, 9–12, 1–14	NA	NA	NA

Metal Combination Kit

Metal in water can be the result of contact with naturally occurring deposits of the element, such as those found in soils and sediments. It may also be present due to waste discharges from mining, metal finishing, or similar industrial processes. In addition, some water treatments can contribute to metal residuals. Finally, metal in water can come from the corrosion of metallic components, such as steel piping and copper heat exchangers. Testing for metals is therefore of great concern to water treatment professionals charged with extending the useful life of equipment. Stand-alone metal(s) tests are also available in the Individual Tests section.

TAYLOR TECHNIQUE tips #3

SWIRL AFTER EACH DROP OF TITRANT TO ENSURE COMPLETE MIXING.

K-1264

This metals kit combines tests for both copper and iron. Midget™ comparators are included along with all reagents and apparatus needed to perform each test.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1264	Copper	Midget Comparator	Cuprizone	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm Cu	9049	4024	R-0860 R-0861
	Iron	Midget Comparator	Tripyridyl-s-triazine	0, 0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0 ppm Fe	9051	4024	R-0851 R-0852

Water-Conditioning Kit

K-1501

The K-1501 is designed for the home water-conditioning professional. The case is designed for years of use and the methods developed for repeatable results. The kit includes everything you will need to test for chlorine, hardness, iron, and pH.

KIT NUMBER	TEST	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1501	Chlorine, Free and Total	Color Card Comparator	DPD	0.5, 1.0, 2.0, 3.0, 5, 10 ppm chlorine (Cl_2)	5421	9017	R-0001 R-0002 R-0003
	Hardness, Total	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 1 gpg as $CaCO_3$	NA	9198B	R-0619B R-0620B R-0683
	Iron	Color Card Comparator	Phenanthroline	0.5, 1.0, 2.0, 3.0, 5, 10 ppm Fe	5424	9017	R-0965 R-0966
	pH	Color Card Comparator	Long range	3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0	5425	9017	R-1003U

Individual Tests

Taylor offers a multitude of single-analyte test kits for your needs, along with several different tools for analyzing water quality. Color-comparison tests are performed with Taylor's trademark Slide™, Midget™, or 2-Standard™ comparators that contain liquid-color standards, or with printed-color standards on laminated cards. This visual method is dependent on the analyst's ability to match the color of the test sample to a color standard. Titration tests involve dispensing reagents from either dropper bottles or burets. They only require the analyst to be able to distinguish a change of color in the treated sample at the endpoint of the reaction, not the colors themselves.

TAYLOR TECHNIQUE tips #4

READ THE ENTIRE INSTRUCTION BEFORE BEGINNING A PROCEDURE.

Acidity FREE MINERAL

The acidity of a water is its quantitative capacity to react with a strong base to a designated pH. Therefore, acidity depends on the endpoint pH or indicator used. Traditionally, fixed endpoints at pH 3.7 (using bromphenol blue indicator) and pH 8.3 (using phenolphthalein indicator) have been used to determine acidity. However, because of its gradual color change from red through grey to green, total alkalinity indicator is often used instead of bromphenol blue. Total alkalinity indicator signals the endpoint of the titration at pH 4.5.

While free mineral acidity (from sulfuric, hydrochloric, and phosphoric acids, for instance) is rarely found in raw water, its presence in chemically treated waters must be monitored and controlled to prevent corrosion.

K-1548

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	REAGENTS
K-1547 (hydrochloric/ muriatic acid)	Drop Test	Neutralization to pH 4.5	1 drop = 0.5 g/100 mL HCl	R-0645 R-0739
K-1548 (sulfuric acid)	Drop Test	Neutralization to pH 4.5	Variable: 1 drop = 0.02–1.0 g/100 mL H_2SO_4 (conversion factors also supplied for phosphoric and sulfamic acids)	R-0645 R-0740

*Free available chlorine in the sample will interfere, but can be removed with sodium thiosulfate 0.1N.

TAYLOR TECHNIQUE tips #5

AVOID CROSS-CONTAMINATION BY THOROUGHLY RINSING THE SAMPLE CONTAINER BETWEEN TESTS.

Alkalinity

Alkalinity is the acid-neutralizing capacity of water. It is a key control parameter for boilers (where, outside of the set operating range, it can lead to corrosion, caustic metal embrittlement, as well as carryover) and cooling water systems (where its effect on chemical treatments employed to inhibit corrosion and scaling is significant). Although many bases, such as borates, phosphates, and silicates, contribute to a water's alkalinity, it is primarily a function of the carbonate, bicarbonate, and hydroxide concentrations.

Alkalinity is determined by titration with a standard acid to a designated pH and recorded as either P, M, or T alkalinity. P alkalinity is titrated to an endpoint pH of 8.3 using phenolphthalein as the indicator. M alkalinity is titrated to an endpoint pH of 4.6 using methyl orange as the indicator. And T alkalinity, which uses total alkalinity indicator, is titrated to an endpoint pH of 4.5.

K-1533PM

K-1527

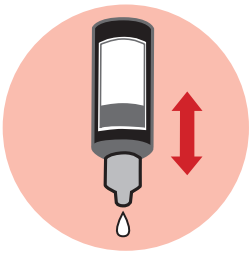
KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1512 (P/T)	Drop Test	Phenolphthalein/blended indicator	1 drop = 10 or 50 ppm as $CaCO_3$	9198G	R-0638 R-0645 R-0687 R-0736
K-1527 (P/T)	Drop Test (using H_2SO_4)	Phenolphthalein/blended indicator	1 drop = 10 ppm as $CaCO_3$	9198G	R-0638 R-0645 R-0687
K-1531 (caustic soda)	Drop Test	Phenolphthalein	1 drop = 0.1 or 1% as NaOH	9198G	R-0638 R-0691
K-1533PM (P/M)	Drop Test	Phenolphthalein/methyl orange	1 drop = 10 or 50 ppm as $CaCO_3$	9198G	R-0637 R-0638 R-0687 R-0736
K-1533PT (P/T)	Drop Test	Phenolphthalein/blended indicator	1 drop = 10 or 50 ppm as $CaCO_3$	9198G	R-0638 R-0645 R-0687 R-0736
K-1575 (P/M and P/T)	Drop Test (using HCl)	Phenolphthalein/methyl orange/blended indicator	1 drop = 10 or 50 ppm as $CaCO_3$	9198G	R-0637 R-0638 R-0645 R-0724 R-0735
K-1537 (hydroxyl)	Drop Test (using HCl)	Phenolphthalein	1 drop = 10 or 50 ppm as $CaCO_3$	9198G	R-0638 R-0711 R-0724 R-0735
K-1530 (total)	Drop Test (using H_2SO_4)	Blended indicator	1 drop = 10 ppm as $CaCO_3$	9198G	R-0645 R-0687

*If sulfuric acid is being added as a pH modifier, it will also alter the P/T alkalinity relationship.

Individual Tests

TAYLOR TECHNIQUE
tips #6

FOR UNIFORM DROP SIZE, HOLD DROPPER BOTTLES VERTICALLY WHEN DISPENSING REAGENTS.



Bromine

Bromine is an oxidizer that acts as a disinfectant and algaecide in hot and cold water systems. Colorimetric tests use liquid DPD (N,N-diethyl-p-phenylenediamine) to determine bromine concentration. A drop-count titration is also available using ferrous ammonium sulfate and DPD powder.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1517-C (total)	Drop Test	FAS-DPD	1 drop = 0.5 or 1.25 ppm bromine (Br_2)	NA	9198Y	R-0870 R-0872
K-1773	Midget Comparator	DPD	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm bromine (Br_2)	9041	4024	R-0001 R-0002

*Tests are limited to on-site analysis. Excessively high bromine will bleach out the DPD indicator in color-matching tests; sample should be diluted and the test result multiplied by the appropriate factor. Chlorine, iodine, and oxidized manganese will register as bromine.

Chelant

Chelants, such as ethylenediaminetetraacetic acid (EDTA) and nitrilotriacetic acid (NTA), are used extensively in boiler and cooling waters to prevent scaling caused by calcium, magnesium, iron, and other metals.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1544 (total)	Drop Test	Complexometric	1 drop = 2 or 5 ppm as EDTA	9198B	R-0735 R-0911 R-0912

*Extremely high hardness interferes in the K-1544 procedure. Other chelants interfere.

Chloride

A key determination for industrial water treaters, chloride is mainly tested to control blowdown in boilers and bleed-off in cooling systems. Chloride tests are also employed to characterize boiler feedwater and to detect leaks in some types of condensers.

Chlorides are determined titrimetrically using either the argentometric or mercuric nitrate method. In the argentometric method, potassium chromate indicates the endpoint by forming red silver chromate with excess silver ions. In the mercuric nitrate method, diphenylcarbazone indicates the endpoint by formation of a purple complex with excess mercuric ions.

K-1549

TAYLOR TECHNIQUE tips #7

TO ENSURE SPECIFIED ACCURACY, ANY INSTRUMENT MUST BE CHECKED AGAINST CHEMICAL STANDARDS PERIODICALLY. TO MINIMIZE YOUR CALIBRATION EFFORT, KEEP RECORDS. IF THE ADJUSTMENTS YOU ARE MAKING ARE MINIMAL FOR YOUR APPLICATION, YOU CAN CHECK LESS OFTEN.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1506 (neutral pH waters)	Drop Test	Argentometric	1 drop = 10, 25, 50, 100, or 500 ppm Cl^-	9198O	R-0630 R-0706
K-1549S (high pH waters)	Drop Test	Argentometric	1 drop = 10 ppm Cl^-	9198O	R-0630 R-0638 R-0706 R-0736
K-1767	Drop Test	Argentrometric	1 drop = 20, 40, 100, 200, or 800 ppm NaCl	9198O	R-0630 R-0706
K-1549 (high pH waters)	Drop Test	Argentometric	1 drop = 10, 25, 50, 100, or 500 ppm Cl^-	9198O	R-0630 R-0638 R-0686 R-0706
K-1598	Drop Test	Mercuric Nitrate	1 drop = 2 or 10 ppm Cl^-	9198O	R-0682 R-0686 R-0845

*Bromide and iodide titrate as equivalent chloride concentrations. Sulfite interferes but can be removed with hydrogen peroxide. High orthophosphate and iron may interfere.

TAYLOR TECHNIQUE tips #8

DO NOT USE YOUR FINGER TO CAP A SAMPLE CONTAINER.

Individual Tests

Chlorine

An oxidizing biocide, chlorine is used to control slime and algae growth in open-recirculating and once-through cooling systems. Free available chlorine is more effective than combined chlorine; together they are termed total chlorine. The colorimetric method OT (orthotolidine) cannot distinguish between the free and combined forms. Color-matching tests using DPD (N,N-diethyl-p-phenylenediamine) or titrations with FAS-DPD (ferrous ammonium sulfate DPD) can.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1259-1 (free and total)	Slide Comparator	DPD	0, 0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm chlorine (Cl_2)	9082	4024	R-0001 R-0002 R-0003
K-1289 (free and total)	Slide Comparator	DPD	1.0, 1.5, 2.0, 2.5, 3.0, 4, 6, 8, 10 ppm chlorine (Cl_2)	9083	4025	R-0001 R-0002 R-0003
K-1515-C (free and combined)	Drop Test	FAS-DPD	1 drop = 0.2 or 0.5 ppm chlorine (Cl_2)	NA	NA	R-0003 R-0870 R-0871
K-1516 (free and combined)	Drop Test	FAS-DPD	1 drop = 0.2 or 0.5 ppm chlorine (Cl_2)	NA	9198	R-0765 R-0870 R-0871
K-1579 (bleach)	Drop Test	Iodometric	1 drop = 10 or 100 ppm/0.05 or 0.5% chlorine (Cl_2)	NA	NA	R-0636 R-0664 R-0665S R-0666 R-0700
K-9022 (total)	Drop Test	Iodometric	1 drop = 1 ppm chlorine (Cl_2)	NA	9198	R-0636 R-0664 R-0665S R-0747
K-1141 (total)	Slide Comparator	OT	0.2, 0.5, 1.0, 2, 4, 6, 8, 10, 12 ppm chlorine (Cl_2)	9088	4023	R-0600
K-1231 (total)	Midget Comparator	OT	0, 0.1, 0.2, 0.3, 0.4, 0.6, 0.8, 1.0 ppm chlorine (Cl_2)	9039	4024	R-0600
K-1234 (free and total)	Midget Comparator	DPD/Tablet	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm chlorine (Cl_2)	9040	4024	R-0843 R-0844
K-1401 (total)	Midget Comparator	OT	5, 25, 50, 75, 100, 200, 250 ppm chlorine (Cl_2)	9297	4025	R-0604 R-0616
K-1768 (free and total)	Midget Comparator	DPD	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm chlorine (Cl_2)	9040	4024	R-0001 R-0002 R-0003
K-1768-2 (free and total)	Midget Comparator	DPD	1.5, 2.0, 2.5, 3.0, 4.0, 6, 8, 10 ppm chlorine (Cl_2)	9048	4025	R-0001 R-0002 R-0003
K-9047 (free and total)	Midget Comparator	DPD	0.1, 0.2, 0.4, 0.7, 1.0, 1.2, 1.5, 2.0 ppm chlorine (Cl_2)	9241	4024	R-0001 R-0002 R-0003

*Tests are limited to on-site analysis. Excessively high chlorine will bleach out the DPD indicator in color-matching tests; sample should be diluted and the test result multiplied by the appropriate factor. Bromine, iodine, and oxidized manganese will register as chlorine.

K-1730

Copper

Copper is tested as an indication of corrosion of copper and copper-alloy components in the cooling or boiler system. Unchecked, damage can result to the components themselves and as a result of dissolved copper in the system. Note: Copper concentrations may be determined using either a Midget™ or Slide™ comparator; however, with a Midget™ the sample should first be filtered with the syringe filtration system, page 37, if colloidal color or turbidity is present.

K-1738

KIT NUMBER	SYSTEM	METHODS/CHEMISTRY	STANDARDS/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1730 (free)	Color Card Comparator	Thiocarbonate	0.05, 0.15, 0.3, 0.5, 0.7, 1.0 ppm Cu	5432	9017	R-0642 R-0643
K-1738	Midget Comparator	Cuprizone	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm Cu	9049	4024	R-0860 R-0861

*Iron greater than 1% will interfere.

K-1503

Hardness

Although hardness in water is caused by a variety of polyvalent cations, current practice is to consider calcium and magnesium ions as the principal constituents. The amount of hardness in natural waters and treated waters may vary from several parts per million to over 500 parts per million. Because calcium and magnesium compounds are relatively insoluble in water, they tend to precipitate easily, causing scale and turbidity. Scaling is especially troublesome where heat transfer is involved, such as in boiler feedwater heaters and heat exchangers in cooling systems. Tests are available for calcium and total hardness in sensitivities ranging from trace to high hardness concentrations.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1505 (total)	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 2 or 10 ppm as $CaCO_3$	9198B	R-0614 R-0615
K-1567 (calcium)	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	9198B	R-0011P R-0653-2 R-0683
K-1514 (calcium and total)	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 2 or 10 ppm as $CaCO_3$	9198B	R-0011P R-0619 R-0620 R-0653-2 R-0683 R-0806
K-1594 (calcium and total)	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 10 ppm as $CaCO_3$	9198B	R-0011P R-0619 R-0620 R-0653-2 R-0683
K-1504 (total, trace levels)	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 0.5 ppm as $CaCO_3$	9198B	R-0620 R-0622 R-0623
K-1503 (total)	Drop Test	EDTA titration (includes inhibitors to prevent metal interference)	1 drop = 2 or 10 ppm as $CaCO_3$	9198B	R-0619 R-0620 R-0683 R-0806
K-0432 (calcium and total)	Buret Titration Reagent Pack	EDTA titration (includes inhibitors to prevent metal interference)	1 mL = 1 mg as $CaCO_3$	NA	R-0011P R-0618 R-0619B R-0620B R-0653-2

*When hardness levels are in excess of 200 ppm, dilution procedures can be followed.

Individual Tests

TAYLOR TECHNIQUE
tips #9

NEVER REMOVE THE LABEL FROM A REAGENT CONTAINER.

K-1443

Hydrogen Peroxide

Hydrogen peroxide (H_2O_2) has many diverse applications, including textile and paper production, mining, the manufacture of chemicals and semiconductors, the operation of cooling towers and once-through cooling water systems, food processing, pollution control, and pool/spa water-maintenance programs. One attraction is that H_2O_2 is an oxidizing biocide. It will kill bacteria, fungi, and viruses. While less effective on its own than chlorine or bromine, it has the advantage of decomposing to water and oxygen without adding dissolved solids to the system.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1443	Drop Test	Iodometric	1 drop = 0.5 or 1% H_2O_2	NA	9198	R-0601 R-0729 R-0765 R-0885
K-1825	Drop Test	Iodometric	1 drop = 5 ppm H_2O_2	NA	9198	R-0601 R-0664 R-0774
K-1826	Drop Test	Iodometric	1 drop = 5 ppm H_2O_2	NA	9198	R-0601 R-0664 R-0774

TAYLOR TECHNIQUE
tips #10

USE DAYLIGHT OR SIMULATED DAYLIGHT TO READ COLORIMETRIC TESTS.

Iron

Iron found in boiler or cooling waters will have come from either the natural source water or the corrosion of iron or steel surfaces in the system; both possibilities must be considered. In solution it exists as ferrous, Fe(II), or ferric, Fe(III). Together they are measured as total iron.

K-1716

Two colorimetric methods are used to determine iron. In the 1,10-phenanthroline method, total iron is determined by reducing Fe(III) to Fe(II) which then reacts with 1,10-phenanthroline to produce an orange-red complex. The 2,4,6-tripyridyl-s-triazine (TPTZ) method, useful for low iron levels, utilizes the purple complex formed in the reaction of Fe(II) with TPTZ. Once again, Fe(III) is reduced to Fe(II) to give total iron. Note: When colloidal color or turbidity is present in the sample, the Midget™ color comparator should be used in conjunction with the syringe filtration system, page 37.

K-1153

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1153	Slide Comparator	Tripyridyl-s-triazine	0, 0.1, 0.2, 0.3, 0.4, 0.6, 0.8, 1.0, 2.0 ppm Fe	9106	4024	R-0851 R-0852
K-1716	Midget Comparator	Tripyridyl-s-triazine	0, 0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0 ppm Fe	9051	4024	R-0851 R-0852

*High copper, nitrite, and molybdate will interfere in the TPTZ procedure. Nitrite, polyphosphate, and high copper will interfere in the phenanthroline procedure.

Microbial Contaminants

Biological fouling in cooling systems is caused by bacteria, algae, molds, and yeasts introduced by contaminated water and air. These microbes proliferate in both open-recirculating and once-through systems, adapting quickly to changes in nutrient load, pH, temperature, and available sunlight. The slimes they form lead to inefficient heat transfer and plugging of tubes, and ultimately severe equipment damage from deposits, corrosion, and wood deterioration. The Easicult Combi system by Orion will indicate slight to heavy microbial infection.

K-1861

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	NUMBER OF TESTS	REAGENTS
K-1861 (aerobic bacteria; fungi and yeasts)	Visual Determination	Nutrient-supported growth	10^3, 10^4, 10^5, 10^6, 10^7 total bacteria CFU/mL with yeasts & molds to 10^6 CFU/mL	10	NA
K-1862 (aerobic bacteria)	Visual Determination	Nutrient-supported growth	10^3, 10^4, 10^5, 10^6, 10^7 total bacteria CFU/mL	10	NA
K-1865 (anaerobic bacteria)	Visual Determination	Nutrient-supported growth	$\leq 10^1$, 10^2, 10^3, 10^4, 10^5, 10^6	25	NA

*If colony-forming units (CFU) exceed limits, sample should be diluted and retested. Dip slide must be incubated. Protect slides from light, drafts, and freezing. Limited shelf life.

Individual Tests

Molybdenum

Molybdenum-based corrosion inhibitors are used in both boilers and cooling towers. In these aqueous systems, molybdenum combines with oxygen to form molybdate. Molybdate inhibits corrosion of low carbon steel. A drop test is used to determine both low and high concentrations. Results can be expressed as either molybdenum or molybdate.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1805	Drop Test	Complexometric	1 drop = 2, 5, 20, or 50 ppm Mo	9198	R-0890 R-0891 R-0892
K-1805P	Drop Test	Complexometric (uses powdered indicator for increased stability)	1 drop = 2, 5, 20, or 50 ppm Mo	9198	R-0890 R-0892 R-0900 R-0901

*The liquid indicator R-0891 in the K-1805 has a limited shelf life and should be checked against Molybdenum Standard (R-0887) periodically after it's four months old. A more stable, two-part reagent system replaces R-0891 in the K-1805P. This liquid-powder combination can be made up on a test-by-test basis, or in small quantities.Thiocarbamates and extremely high concentrations of 1-hydroxyethylidene-1,1-diphosphonic acid (HEDP) will interfere.

Neutralizing Amines

Neutralizing amines are used to reduce metal loss in steam condensate systems caused by carbon dioxide corrosion. Cyclohexylamine, diethylethanolamine, and triethanolamine are among the more commonly used neutralizing amines, and can be determined by acid-base titration.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1682	Drop Test	Acid-base titration	1 drop = 2.5 ppm MEA/3.8 ppm MOPA/ 3.8 ppm MOR/4 ppm CHA/ 5 ppm DEAE (DEEA)/6 ppm TEA	9198	R-0645 R-0869

*Carbonates or other alkaline materials from boiler carryover or leaks in a condenser or heat exchanger can interfere with this test.

K-1510

K-1563

Nitrite

Nitrite-based treatments are commonly used to establish a protective film on ferrous metal surfaces in closed cooling water systems. At high pH levels, nitrite will also protect aluminum and tin surfaces, but it is not an effective corrosion inhibitor for copper or copper alloys. Nitrites can be determined titrimetrically by using either the permanganate or cerric ammonium nitrate (CAN) method.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1565	Drop Test	Permanganate	1 drop = 50 ppm $NaNO_2$	9198R	R-0733 R-0781
K-1563	Drop Test	Permanganate (using acid sulfate)	1 drop = 100 ppm $NaNO_2$	9198R	R-0730 R-0781
K-1539	Drop Test	Permanganate (using H_2SO_4)	1 drop = 100 ppm $NaNO_2$	9198R	R-0729 R-0730
K-1510	Drop Test	Ceric oxidation of nitrite (CAN)	1 drop = 40 ppm $NaNO_2$	9198R	R-0819 R-0820

*Use the CAN method to test systems containing glycol.

Orthophosphate

Orthophosphates can occur naturally in water at low levels. In boiler water treatment chemicals, they are primarily added to control scaling since they react with calcium hardness to form a more fluid sludge, such as calcium phosphate; orthophosphates also provide good corrosion inhibition. Concentrations are determined colorimetrically using the stannous chloride method.

K-1100C

K-1831

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1100 (without case)	Slide Comparator	Stannous chloride	5, 10, 20, 30, 40, 50 60, 80, 100 ppm PO_4	9110	4023 & 9021	R-0601 R-0602P
K-1831	2-Standard Comparator	Stannous chloride	30 and 60 ppm PO_4	9025	9021	R-0601 R-0602P

*High levels of silica and ferrous iron may interfere. Fluoride and sulfide will interfere.

TAYLOR TECHNIQUE
tips #11

PROGRESSION OF A DROP TEST
(ILLUSTRATED WITH A HARDNESS TEST)

1 In this drop-count titration, indicator is about to be added to a water sample.

2 Sample turns a distinct color with addition of indicator.

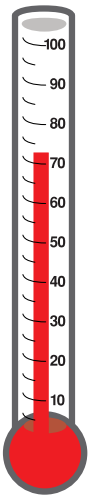
3 Next, titrant is added drop by drop, and swirled after each addition. The sample shows a mixture of two colors . . .

4 . . . until the moment when the color change is complete. This is called the endpoint of the reaction.

Add one more drop of titrant after the endpoint to be certain the color change is permanent. If the color remains unchanged, do not count this drop.

TAYLOR TECHNIQUE
tips #12

BRING HOT WATER SAMPLES TO ROOM TEMPERATURE PROMPTLY BEFORE ANALYZING.



Ozone

Ozone is a potent oxidizer that is used as a disinfectant in swimming pools and spas and in potable water and wastewater treatment. However, because it is quite reactive, it is not widely used as a biocide in cooling systems. The N,N-diethyl-p-phenylenediamine (DPD) method is used to determine ozone.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1822	Slide Comparator	DPD	0, 0.07, 0.13, 0.20, 0.26, 0.33, 0.40, 0.53, 0.66 ppm O_2	9318	4024	R-0001 R-0002 R-0003

*Test is limited to on-site analysis. Excessively high ozone will bleach out the DPD indicator in color-matching tests; sample should be diluted and the test result multiplied by the appropriate factor. Bromine, chlorine, iodine, and oxidized manganese will register as ozone.

K-1546

Peracetic Acid

Peracetic acid (PAA) is a strong oxidizer and an excellent anti-microbial. It's effective over a wide temperature range, it has low potential for forming toxic byproducts, and when added to water it decomposes innocuously. Although employed by industry for many years—for instance, in food and beverage production as a sanitizer and in pulp and paper manufacturing as a delignification and bleaching agent—peracetic acid has not been used to control growth of microorganisms in cooling towers until recently.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1546	Drop Test	Iodometric	0–1000 ppm PAA	NA	9198	R-0925 R-0926 R-0927 R-0928 R-0929

K-1285-2

pH

pH is a measure of the acidity of water and is defined as the negative logarithm of the hydrogen ion concentration. Because pH significantly affects most biological and chemical processes, it is one of the most important and frequently tested parameters in water chemistry.

Taylor offers comparators that cover ranges throughout the entire pH scale. Slide™ and Midget™ comparators are used for most applications.

K-1592

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1011-J	Slide Comparator	Phenol red	6.8–8.4 (0.2 increments)	9067	4023	R-1003J
K-1011-K	Slide Comparator	Cresol red	7.2–8.8 (0.2 increments)	9068	4023	R-1003K
K-1285-1	Midget Comparator	Long range	3.0–10.0 (1.0 increments)	9052	4024	R-1003U
K-1285-2	Midget Comparator	Phenol red	6.8–8.2 (0.2 increments)	9053	4024	R-1003J
K-1285-6	Midget Comparator	Cresol red	7.2–8.6 (0.2 increments)	9006	4024	R-1003K
K-1592	Color Card Comparator	Long range	3–11 (1.0 increments)	5425	9017	R-1003U

*Acyl red comparators should be used instead of tolyl red comparators when calcium salts are present in the water sample.

Individual Tests

Phosphonate

Phosphonates, or organo-phosphates, are primarily used in boilers and cooling towers to control scaling. They are also sometimes part of pre-cleaning programs for cooling water systems. Aminotri (methylene phosphonic acid) (ATMP) and related phosphonates are determined titrimetrically using thorium nitrate and xylenol orange indicator. A fluoride masking agent is provided to eliminate interference where applicable. Conversion factors for ATMP, Na5-ATMP, HEDP, K6HDTMP, DTPMP, and Na5DTPMP are listed in the test instructions.

TAYLOR TECHNIQUE
tips #13

DO NOT SUBSTITUTE REAGENTS OR SAMPLE CONTAINERS FROM DIFFERENT MANUFACTURERS.

K-1583

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-1583	Drop Test	Thorium nitrate/ xylenol orange (uses pH paper 1.8–3.8 for pH adjustment)	1 drop = 1 ppm ATMP (Aminotri(methylenephosphonic acid)) plus conversion factors for ATMP-related phosphonates	9198P	R-0686 R-0697 R-0802P R-0803 R-0805
K-1584	Drop Test	Thorium nitrate/ chrome azurol S (uses pH test paper 2.5–4.5 for pH adjustment)	1 drop = 0.8 ppm PBTC plus conversion factors for other ATMP-related phosphonates	9198P	R-0627H-4 R-0697 R-0800 R-0803

*Iron causes negative interference; orthophosphate and polyphosphate cause positive interference. Kits contain pH papers for adjusting sample pH to achieve accurate, consistent results.

Polymer

Polymers are widely used in water treatment programs for both boiler and cooling systems. They are designed to work on hardness salts, iron, and suspended solids. These organic molecules act to increase the solubility of normal reaction products and to disperse solids so they do not accumulate on equipment surfaces. In boiler water the polymer treatment can be used alone or with other conditioners, like phosphates, phosphonates, and chelants. In cooling water the polymer is typically used in conjunction with corrosion inhibitors and/or scale inhibitors.

K-1190

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1190 (free)	Color Card Comparator	Turbidimetric	0, 2, 5, 7, 10 ppm PAA	NA	9198	R-0830 R-0831

Quaternary Ammonium Compound (QAC/POLYQUAT)

QAC products are used for microbiological control in open-recirculating cooling water systems as alternatives to chlorine. They are non-oxidizing and have surface-active properties. Determination is based upon direct neutralization of the quat or polyquat.

K-1582

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	CELL NUMBER	REAGENTS
K-9065 (QAC and polyquat)	Drop Test	Direct neutralization	1 drop = 1.25 ppm QAC/ 0.5 ppm polyquat	9198BR	R-0638 R-0736 R-0881 R-0950 R-0951
K-1582 (QAC and polyquat)	Drop Test	Direct neutralization	1 drop = 10 or 25 ppm QAC/ 3.5 or 9 ppm polyquat	9198BR	R-0638 R-0736 R-0881 R-0884 R-0950

*Method cannot distinguish between various QAC or polyquat compounds. Equivalences for compounds other than those listed in the instructions must be determined by titration with a known standard.

K-1273

Silica

The silica content of natural water is commonly in the 1 to 30 ppm range, although concentrations of 50 to 100 ppm in well waters are not unusual. In operating systems, silica scale appears as a dense, glassy material that is very difficult to remove. Concentrations above recommended levels in boiler feedwater can lead to scale formation in the boiler itself; even more problematic in high-pressure boilers is silica that volatilizes into the steam system only to redeposit on turbine blades. In cooling towers, silica is generally kept below 150 ppm to prevent silica and silicate scales. Silica can be determined colorimetrically by either the heteropoly blue or molybdosilicate method.

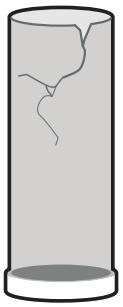
KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1272	Slide Comparator	Heteropoly blue	0, 5, 10, 15, 20, 25, 30, 40, 50 ppm SiO_2 By dilution: 0, 25, 50, 75, 100, 125, 150, 200, 250 ppm SiO_2 or 0, 50, 100, 150, 200, 250, 300, 400, 500 ppm SiO_2	9264	4023	R-1305Q R-1305U R-1306T R-1306U
K-1273	Midget Comparator	Heteropoly blue	5, 10, 15, 20, 25, 30, 40, 50 ppm SiO_2 By dilution: 25, 50, 75, 100, 125, 150, 200, 250 ppm SiO_2 or 50, 100, 150, 200, 250, 300, 400, 500 ppm SiO_2	9257	4025	R-1305Q R-1305U R-1306T R-1306U

*High levels of sulfide, tannin, and iron will interfere.
Important: Swirl to mix completely and wait, as instructed, between steps to ensure proper results.

Individual Tests

TAYLOR TECHNIQUE
tips #14

REPLACE DAMAGED KIT COMPONENTS.



Sulfite

Dissolved oxygen in boiler feedwater is highly corrosive. To prevent pitting, sulfite is used as an oxygen scavenger, frequently in combination with mechanical deaeration. Iodometric titration is the most popular field method for determining sulfite. A colorimetric analysis, based on reacting sulfite with a standard quantity of iodine and measuring the amount of decolorization, is also available.

K-1529

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1529	Drop Test	Iodometric	1 drop = 2 or 10 ppm Na_2SO_3	NA	9198W	R-0638 R-0699 R-0725 R-0808

*Test is limited to on-site analysis. Sulfide and ferrous iron cause positive interference; copper and nitrite cause negative interference.

K-1519

Water Softener

Softeners are designed to cause scale-forming calcium and magnesium ions to be exchanged for sodium ions producing softened water. The K-1519 water softener test kit indicates if either soft or hard water is present, informing the analyst if resin renewal or reactivation is necessary.

KIT NUMBER	SYSTEM	METHOD/CHEMISTRY	STANDARD/EQUIVALENCE	COMPARATOR NUMBER	CELL NUMBER	REAGENTS
K-1519	Drop Test	Visual determination	Blue color indicates soft water (<1 gpg total hardness); red color indicates hard water (>1 gpg total hardness)	NA	9198	R-0854

Components

For your convenience, we stock many items for water analysis in addition to our own kits and reagents. These include a wide selection of general-use glassware and plasticware, as well as replacements for all components found in our test kits.

Numeric Listing of Reagents

REAGENT	DESCRIPTION
R-0001-A	DPD Reagent #1, .75 oz, Dropper Bottle
R-0001-C	DPD Reagent #1, 2 oz, Dropper Bottle
R-0002-A	DPD Reagent #2, .75 oz, Dropper Bottle
R-0002-C	DPD Reagent #2, 2 oz, Dropper Bottle
R-0003-A	DPD Reagent #3, .75 oz, Dropper Bottle
R-0003-C	DPD Reagent #3, 2 oz, Dropper Bottle
R-0011L-C	Calcium Indicator Liquid, 2 oz, Dropper Bottle
R-0011L-E	Calcium Indicator Liquid, 16 oz
R-0011P-I	Calcium Indicator Powder, 10 g
R-0011P-II	Calcium Indicator Powder, 50 g
R-0011P-J	Calcium Indicator Powder, .25 lb
R-0600-A	Orthotolidine, .75 oz
R-0600-A-DB	Orthotolidine, .75 oz, Dropper Bottle
R-0600-C	Orthotolidine, 2 oz
R-0600-C-DB	Orthotolidine, 2 oz, Dropper Bottle
R-0600-E	Orthotolidine, 16 oz
R-0600-F	Orthotolidine, 32 oz
R-0601-C	Molybdate Reagent, 2 oz
R-0601-C-DB	Molybdate Reagent, 2 oz, Dropper Bottle
R-0601C-G	Molybdate Concentrate, gal
R-0601-E	Molybdate Reagent, 16 oz
R-0601-F	Molybdate Reagent, 32 oz
R-0601-G	Molybdate Reagent, gal
R-0602-C	Stannous Chloride Concentrate, 2 oz
R-0602P-I	Stannous Chloride Powder, 10 g
R-0602P-J	Stannous Chloride Powder, .25 lb
R-0604-C	Chlorine Reagent #2, 2 oz
R-0604-E	Chlorine Reagent #2, 16 oz
R-0608-E	Sulfuric Acid Concentrated, 16 oz
R-0614-C	Hardness Reagent A (odorless buffer), 2 oz w/ blue cap, Dropper Bottle
R-0615-I	Hardness Reagent B, 10 g w/ blue dot
R-0615-J	Hardness Reagent B, .25 lb w/ blue dot
R-0616-C	Hydrochloric Acid Concentrated, 2 oz
R-0616-E	Hydrochloric Acid Concentrated, 16 oz
R-0617-E	Iodide Iodate N/63, 16 oz
R-0617-F	Iodide Iodate N/63, 32 oz
R-0617-G	Iodide Iodate N/63, gal
R-0618-E	Hardness Reagent .01M, 16 oz
R-0618-F	Hardness Reagent .01M, 32 oz
R-0618-G	Hardness Reagent .01M, gal

REAGENT	DESCRIPTION
R-0619-E	Hardness Buffer, 16 oz
R-0619B-C	Hardness Buffer, 2 oz w/ blue cap, Dropper Bottle
R-0619LB-C	Hardness Buffer, 2 oz w/ light blue cap, Dropper Bottle
R-0620-J	Hardness Indicator Powder, .25 lb
R-0620B-I	Hardness Indicator Powder, 10 g w/ blue dot
R-0620LB-I	Hardness Indicator Powder, 10 g w/ light blue dot
R-0622-C	Trace Hardness Buffer, 2 oz, Dropper Bottle
R-0622-E	Trace Hardness Buffer, 16 oz
R-0623-C	Trace Hardness Reagent, 2 oz, Dropper Bottle
R-0623-E	Trace Hardness Reagent, 16 oz
R-0627H-4-C	Hydrochloric Acid .25N, 2 oz, Dropper Bottle
R-0627S-10-C	Sulfuric Acid N/10, 2 oz, Dropper Bottle
R-0627S-10-E	Sulfuric Acid N/10, 16 oz
R-0627S-10-F	Sulfuric Acid N/10, 32 oz
R-0627S-10-G	Sulfuric Acid N/10, gal
R-0627S-50-E	Sulfuric Acid N/50, 16 oz
R-0627S-50-F	Sulfuric Acid N/50, 32 oz
R-0627S-50-G	Sulfuric Acid N/50, gal
R-0628-50-E	Sodium Hydroxide N/50, 16 oz
R-0628-50-F	Sodium Hydroxide N/50, 32 oz
R-0629-35-E	Silver Nitrate N/35.5, 16 oz
R-0629-35-F	Silver Nitrate N/35.5, 32 oz
R-0629-50-F	Silver Nitrate N/50, 32 oz
R-0629-58-F	Silver Nitrate N/58.4, 32 oz
R-0629-71-F	Silver Nitrate N/71, 32 oz
R-0630-A	Chromate Indicator, .75 oz, Dropper Bottle
R-0630-C	Chromate Indicator, 2 oz, Dropper Bottle
R-0630-E	Chromate Indicator, 16 oz
R-0630-F	Chromate Indicator, 32 oz
R-0633-40-E	Iodide Iodate N/40, 16 oz
R-0633-40-F	Iodide Iodate N/40, 32 oz
R-0633-40-G	Iodide Iodate N/40, gal
R-0633-80-E	Iodide Iodate N/80, 16 oz
R-0633-80-F	Iodide Iodate N/80, 32 oz
R-0633-80-G	Iodide Iodate N/80, gal
R-0633-126-E	Iodide Iodate N/126, 16 oz
R-0633-126-F	Iodide Iodate N/126, 32 oz
R-0633-126-G	Iodide Iodate N/126, gal
R-0636-C	Starch Indicator Solution, 2 oz, Dropper Bottle
R-0636-E	Starch Indicator Solution, 16 oz

REAGENT	DESCRIPTION
R-0637-C	Methyl Orange Indicator, 2 oz, Dropper Bottle
R-0637-E	Methyl Orange Indicator, 16 oz
R-0637-F	Methyl Orange Indicator, 32 oz
R-0638-E	Phenolphthalein Indicator, 16 oz
R-0638-F	Phenolphthalein Indicator, 32 oz
R-0638-G	Phenolphthalein Indicator, gal
R-0638BR-C	Phenolphthalein Indicator, 2 oz w/ brown cap, Dropper Bottle
R-0638G-A	Phenolphthalein Indicator, .75 oz w/ green cap, Dropper Bottle
R-0638G-C	Phenolphthalein Indicator, 2 oz w/ green cap, Dropper Bottle
R-0638O-A	Phenolphthalein Indicator, .75 oz w/ orange cap, Dropper Bottle
R-0638O-C	Phenolphthalein Indicator, 2 oz w/ orange cap, Dropper Bottle
R-0638W-C	Phenolphthalein Indicator, 2 oz w/ white cap, Dropper Bottle
R-0642-A	Copper Buffer, .75 oz, Dropper Bottle
R-0643-A	Thiocarbamate Reagent, .75 oz, Dropper Bottle
R-0645-C	Total Alkalinity Indicator, 2 oz, Dropper Bottle
R-0645-E	Total Alkalinity Indicator, 16 oz
R-0645-F	Total Alkalinity Indicator, 32 oz
R-0645-G	Total Alkalinity Indicator, gal
R-0646-E	Barium Chloride Solution 10%, 16 oz
R-0646-F	Barium Chloride Solution 10%, 32 oz
R-0646-G	Barium Chloride Solution 10%, gal
R-0649-C	Hydrogen Peroxide Solution, 2 oz, Dropper Bottle
R-0653-2-C	Calcium Buffer, 2 oz, Dropper Bottle
R-0653-2-E	Calcium Buffer, 16 oz
R-0656-C	Standard Alkali N, 2 oz, Dropper Bottle
R-0656-F	Standard Alkali N, 32 oz
R-0664-C	Bleach Reagent #1, 2 oz
R-0664-C-DB	Bleach Reagent #1, 2 oz, Dropper Bottle
R-0664-E	Bleach Reagent #1, 16 oz
R-0665S-II	Bleach Reagent #2 (crystals), 50 g
R-0666-C	Bleach Reagent #3, 2 oz, Dropper Bottle
R-0674-C	High Iron Reagent #2, 2 oz
R-0674-E	High Iron Reagent #2, 16 oz
R-0682-C	Chloride Reagent, 2 oz, Dropper Bottle
R-0683-C	Hardness Reagent (1 drop = 10 ppm hardness as $CaCO_3$), 2 oz, Dropper Bottle
R-0683-E	Hardness Reagent (1 drop = 10 ppm hardness as $CaCO_3$), 16 oz
R-0683-F	Hardness Reagent (1 drop = 10 ppm hardness as $CaCO_3$), 32 oz
R-0683-G	Hardness Reagent (1 drop = 10 ppm hardness as $CaCO_3$), gal
R-0686-E	Sulfuric Acid N, 16 oz
R-0686-F	Sulfuric Acid N, 32 oz

REAGENT	DESCRIPTION
R-0686O-C	Sulfuric Acid N, 2 oz w/ orange cap, Dropper Bottle
R-0686P-C	Sulfuric Acid N, 2 oz w/ purple cap, Dropper Bottle
R-0687-E	Sulfuric Acid .12N, 16 oz
R-0687-F	Sulfuric Acid .12N, 32 oz
R-0687-G	Sulfuric Acid .12N, gal
R-0687G-C	Sulfuric Acid .12N, 2 oz w/ green cap, Dropper Bottle
R-0687O-C	Sulfuric Acid .12N, 2 oz w/ orange cap, Dropper Bottle
R-0691-C	Sulfuric Acid Reagent, 2 oz, Dropper Bottle
R-0697-C	Thiosulfate N/10, 2 oz, Dropper Bottle
R-0697-E	Thiosulfate N/10, 16 oz
R-0697-F	Thiosulfate N/10, 32 oz
R-0698-C	Silver Nitrate N/10, 2 oz, Dropper Bottle
R-0699-C	Iodide Iodate Reagent (1 drop = 10 ppm Na_2SO_3), 2 oz, Dropper Bottle
R-0699-E	Iodide Iodate Reagent (1 drop = 10 ppm Na_2SO_3), 16 oz
R-0699-F	Iodide Iodate Reagent (1 drop = 10 ppm Na_2SO_3), 32 oz
R-0699-G	Iodide Iodate Reagent (1 drop = 10 ppm Na_2SO_3), gal
R-0700-C	Thiosulfate Reagent (chlorine titrant), 2 oz, Dropper Bottle
R-0700-E	Thiosulfate Reagent (chlorine titrant), 16 oz
R-0706-C	Silver Nitrate Reagent (25 mL sample, 1 drop = 10 ppm Cl^-), 2 oz, Dropper Bottle
R-0706-E	Silver Nitrate Reagent (25 mL sample, 1 drop = 10 ppm Cl^-), 16 oz
R-0706-F	Silver Nitrate Reagent (25 mL sample, 1 drop = 10 ppm Cl^-), 32 oz
R-0709-C	Hydrochloric Acid Reagent, 2 oz, Dropper Bottle
R-0711-C	Barium Chloride Solution 20%, 2 oz
R-0711-E	Barium Chloride Solution 20%, 16 oz
R-0711-F	Barium Chloride Solution 20%, 32 oz
R-0720-E	Barium Chloride Solution 30%, 16 oz
R-0724-C	Hydrochloric Acid .12N, 2 oz, Dropper Bottle
R-0724-E	Hydrochloric Acid .12N, 16 oz
R-0724-F	Hydrochloric Acid .12N, 32 oz
R-0725-I	Acid Starch Indicator Powder, 10 g
R-0725-J	Acid Starch Indicator Powder, .25 lb
R-0729-C	Sulfuric Acid 50%, 2 oz
R-0729-C-DB	Sulfuric Acid 50%, 2 oz, Dropper Bottle
R-0730-C	Permanganate Reagent (25 mL sample, 1 drop = 100 ppm $NaNO_2$), 2 oz
R-0730-E	Permanganate Reagent (25 mL sample, 1 drop = 100 ppm $NaNO_2$), 16 oz
R-0730-F	Permanganate Reagent (25 mL sample, 1 drop = 100 ppm $NaNO_2$), 32 oz
R-0733-C	Permanganate Reagent (25 mL sample, 1 drop = 50 ppm $NaNO_2$), 2 oz
R-0733-E	Permanganate Reagent (25 mL sample, 1 drop = 50 ppm $NaNO_2$), 16 oz
R-0733-F	Permanganate Reagent (25 mL sample, 1 drop = 50 ppm $NaNO_2$), 32 oz
R-0735-E	Hydrochloric Acid .6N, 16 oz

Numeric Listing of Reagents

REAGENT	DESCRIPTION
R-0735-F	Hydrochloric Acid .6N, 32 oz
R-0735G-C	Hydrochloric Acid .6N, 2 oz w/ green cap, Dropper Bottle
R-0735LB-C	Hydrochloric Acid .6N, 2 oz w/ light blue cap, Dropper Bottle
R-0736-E	Sulfuric Acid .6N, 16 oz
R-0736-F	Sulfuric Acid .6N, 32 oz
R-0736BR-C	Sulfuric Acid .6N, 2 oz w/ brown cap, Dropper Bottle
R-0736G-C	Sulfuric Acid .6N, 2 oz w/ green cap, Dropper Bottle
R-0736O-C	Sulfuric Acid .6N, 2 oz w/ orange cap, Dropper Bottle
R-0737-C	Hydrochloric Acid 3N, 2 oz, Dropper Bottle
R-0737-F	Hydrochloric Acid 3N, 32 oz
R-0738-E	Hydrochloric Acid 1N, 16 oz
R-0739-C	Sodium Hydroxide Reagent (1 drop = 0.5 g/100 mL HCl), 2 oz, Dropper Bottle
R-0740-C	Sodium Hydroxide Reagent (1 drop = 1 g/100 mL H_2SO_4, H_3PO_4, or H_3NSO_3)
R-0742-C	Permanganate Reagent (25 mL sample, 1 drop = 25 ppm $NaNO_2$), 2 oz
R-0742-E	Permanganate Reagent (25 mL sample, 1 drop = 25 ppm $NaNO_2$), 16 oz
R-0747-C	Sodium Thiosulfate, 2 oz, Dropper Bottle
R-0755-C	Magnesium Chloride Reagent, 2 oz, Dropper Bottle
R-0765-I	Potassium Iodide Crystals, 10 g
R-0765-II	Potassium Iodide Crystals, 50 g
R-0765-J	Potassium Iodide Crystals, .25 lb
R-0770-C	Oxone Reagent, 2 oz, Dropper Bottle
R-0772-E	Iodide Solution, 16 oz
R-0774-C	Thiosulfate Reagent (25 mL sample, 1 drop = 5 ppm H_2SO_4), 2 oz, Dropper Bottle
R-0774-E	Thiosulfate Reagent (25 mL sample, 1 drop = 5 ppm H_2SO_4), 16 oz
R-0781-II	Acid Sulfate, 50 g
R-0781-J	Acid Sulfate, .25 lb
R-0800-I	CAS Indicator Powder, 10 g
R-0802P-I	Xylenol Orange Indicator Powder, 10 g
R-0802P-J	Xylenol Orange Indicator Powder, .25 lb
R-0803-C	Phosphonate Titrating Solution (for drop-count titrations), 2 oz, Dropper Bottle
R-0803-E	Phosphonate Titrating Solution (for drop-count titrations), 16 oz
R-0803-F	Phosphonate Titrating Solution (for drop-count titrations), 32 oz
R-0803-G	Phosphonate Titrating Solution (for drop-count titrations), gal
R-0804-DD	Demineralizer Bottle, 8 oz
R-0805-C	Fluoride Masking Agent, 2 oz, Dropper Bottle
R-0805-E	Fluoride Masking Agent, 16 oz
R-0806-C	Hardness Reagent (25 mL sample, 1 drop = 2 ppm hardness as $CaCO_3$), 2 oz, Dropper Bottle
R-0806-E	Hardness Reagent (25 mL sample, 1 drop = 2 ppm hardness as $CaCO_3$), 16 oz
R-0806-F	Hardness Reagent (25 mL sample, 1 drop = 2 ppm hardness as $CaCO_3$), 32 oz
R-0806-G	Hardness Reagent (25 mL sample, 1 drop = 2 ppm hardness as $CaCO_3$), gal

REAGENT	DESCRIPTION
R-0807-C	Silver Nitrate Reagent (25 mL sample, 1 drop = 2 ppm Cl^-), 2 oz, Dropper Bottle
R-0807-E	Silver Nitrate Reagent (25 mL sample, 1 drop = 2 ppm Cl^-), 16 oz
R-0808-C	Iodide Iodate Reagent (25 mL sample, 1 drop = 2 ppm Na_2SO_4), 2 oz, Dropper Bottle
R-0808-E	Iodide Iodate Reagent (25 mL sample, 1 drop = 2 ppm Na_2SO_4), 16 oz
R-0808-F	Iodide Iodate Reagent (25 mL sample, 1 drop = 2 ppm Na_2SO_4), 32 oz
R-0809-II	TDS Resin, 50 g
R-0810-C	Sodium Carbonate .24N, 2 oz, Dropper Bottle
R-0810-E	Sodium Carbonate .24N, 16 oz
R-0811-C	Sulfuric Acid .24N, 2 oz, Dropper Bottle
R-0813-C	Glycine Solution, 2 oz
R-0814-C	EDTA Solution, 2 oz
R-0815-C	FAS Titrating Solution, 2 oz, Dropper Bottle
R-0819-A	Ferroin Indicator, .75 oz, Dropper Bottle
R-0819-C	Ferroin Indicator, 2 oz, Dropper Bottle
R-0819-E	Ferroin Indicator, 16 oz
R-0820-C	CAN Solution (5 mL sample, 1 drop = 40 ppm $NaNO_2$), 2 oz, Dropper Bottle
R-0820-E	CAN Solution (5 mL sample, 1 drop = 40 ppm $NaNO_2$), 16 oz
R-0820-F	CAN Solution (5 mL sample, 1 drop = 40 ppm $NaNO_2$), 32 oz
R-0830-C	Free Polymer Reagent #1, 2 oz
R-0830-E	Free Polymer Reagent #1, 16 oz
R-0831-C	Free Polymer Reagent #2, 2 oz
R-0831-E	Free Polymer Reagent #2, 16 oz
R-0833-C	DI Water, 2 oz, Dispenser Cap
R-0833-F	DI Water, 32 oz
R-0834-C	pH Soaker Solution, 2 oz, Dispenser Tip
R-0834-E	pH Soaker Solution, 16 oz
R-0843-Z	DPD Tablet #1, 1,000-pack
R-0845-C	Mercuric Nitrate Titrating Solution, 2 oz, Dropper Bottle
R-0847-E	SEQ Reagent (25 mL sample, 1 drop = 1 ppm Organo-Phosphorus SEQ Agent), 16 oz
R-0851-A	Iron Reagent #1, .75 oz
R-0851-C	Iron Reagent #1, 2 oz
R-0851-E	Iron Reagent #1, 16 oz
R-0852-A	Iron Reagent #2, .75 oz
R-0852-C	Iron Reagent #2, 2 oz
R-0852-E	Iron Reagent #2, 16 oz
R-0854-A	Total Hardness Reagent, .75 oz, Dropper Bottle
R-0854-C	Total Hardness Reagent, 2 oz, Dropper Bottle
R-0854-E	Total Hardness Reagent, 16 oz
R-0860-A	Copper Reagent #1, .75 oz
R-0860-C	Copper Reagent #1, 2 oz

REAGENT	DESCRIPTION
R-0860-E	Copper Reagent #1, 16 oz
R-0861-A	Copper Reagent #2, .75 oz
R-0861-C	Copper Reagent #2, 2 oz
R-0861-E	Copper Reagent #2, 16 oz
R-0866-C	SEQ Reagent (25 mL sample, 1 drop = 10 ppm Organo-Phosphorus SEQ Agent), 2 oz, Dropper Bottle
R-0868-1K-E	Conductivity Solution 1000 µS (492 ppm NaCl), 16 oz
R-0868-1K-F	Conductivity Solution 1000 µS (492 ppm NaCl), 32 oz
R-0868-1K-G	Conductivity Solution 1000 µS (492 ppm NaCl), gal
R-0868-25C-C	Conductivity Solution 2500 µS (1273 ppm NaCl), 2 oz, Dispenser Tip
R-0868-25C-E	Conductivity Solution 2500 µS (1273 ppm NaCl), 16 oz
R-0868-25C-F	Conductivity Solution 2500 µS (1273 ppm NaCl), 32 oz
R-0868-25C-G	Conductivity Solution 2500 µS (1273 ppm NaCl), gal
R-0868-39C-F	Conductivity Solution 3900 µS (2027 ppm NaCl), 32 oz
R-0868-50-F	Conductivity Solution 50 µS (23.4 ppm NaCl), 32 oz
R-0868-5C-E	Conductivity Solution 500 µS (242 ppm NaCl), 16 oz
R-0868-5C-F	Conductivity Solution 500 µS (242 ppm NaCl), 32 oz
R-0868-5K-F	Conductivity Solution 5000 µS (2634 ppm NaCl), 32 oz
R-0869-C	Neutralizing Amine Titrating Solution, 2 oz, Dropper Bottle
R-0870-I	DPD Powder, 10 g
R-0870-J	DPD Powder, .25 lb
R-0871-C	FAS-DPD Titrating Reagent (for chlorine), 2 oz, Dropper Bottle
R-0871-E	FAS-DPD Titrating Reagent (for chlorine), 16 oz
R-0871-F	FAS-DPD Titrating Reagent (for chlorine), 32 oz
R-0872-C	FAS-DPD Titrating Reagent (for bromine), 2 oz, Dropper Bottle
R-0879-F	NTA Cosolvent Solution, 32 oz
R-0880-E	Phosphonate Titrating Solution (for buret titrations), 16 oz
R-0881-A	Toluidine Blue O Indicator, .75 oz, Dropper Bottle
R-0881-C	Toluidine Blue O Indicator, 2 oz, Dropper Bottle
R-0881-E	Toluidine Blue O Indicator, 16 oz
R-0884-C	QAC Titrating Solution (high range), 2 oz, Dropper Bottle
R-0887-C	Molybdenum Standard 20 ppm, 2 oz
R-0890-C	Molybdenum Buffer Solution, 2 oz
R-0890-E	Molybdenum Buffer Solution, 16 oz
R-0891-C	Molybdenum Indicator Solution, 2 oz
R-0891-E	Molybdenum Indicator Solution, 16 oz
R-0892-C	Molybdenum Titrating Solution, 2 oz, Dropper Bottle
R-0892-E	Molybdenum Titrating Solution, 16 oz
R-0896-C	Sulfuric Acid, 2 oz, Dropper Bottle
R-0900-I	Molybdenum Indicator Powder, 10 g
R-0901-C	Molybdenum Indicator Solvent, 2 oz

REAGENT	DESCRIPTION
R-0911-I	Total Chelant Indicator Powder, 10 g
R-0912-C	Total Chelant Titrating Solution, 2 oz, Dropper Bottle
R-0920-F	Hardness Reagent .001M, 32 oz
R-0920-G	Hardness Reagent .001M, gal
R-0925-C	PAA Reagent #1, 2 oz
R-0926-A	PAA Reagent #2, .75 oz, Dropper Bottle
R-0927-C	PAA Reagent #3, 2 oz
R-0928-C	PAA Reagent #4, 2 oz, Dropper Bottle
R-0929-C	PAA Titrating Solution, 2 oz, Dropper Bottle
R-0950-C	Complexing Reagent, 2 oz
R-0950-E	Complexing Reagent, 16 oz
R-0951-C	QAC Titrating Solution (low range), 2 oz, Dropper Bottle
R-0951-E	QAC Titrating Solution (low range), 16 oz
R-0968-1K-C	TDS Solution (equivalent to 1000 ppm/442™), 2 oz, Dispenser Tip
R-0968-1K-F	TDS Solution (equivalent to 1000 ppm/442™), 32 oz
R-1003C-E	Benzo Yellow Indicator, 16 oz
R-1003E-E	Bromcresol Green Indicator, 16 oz
R-1003F-F	Methyl Red Indicator, 32 oz
R-1003H-A	Bromthymol Blue Indicator, .75 oz
R-1003H-C	Bromthymol Blue Indicator, 2 oz
R-1003H-E	Bromthymol Blue Indicator, 16 oz
R-1003H-F	Bromthymol Blue Indicator, 32 oz
R-1003J-A	pH Indicator Solution (for Midget & Slide comparators), Phenol Red, .75 oz
R-1003J-C	pH Indicator Solution (for Midget & Slide comparators), Phenol Red, 2 oz
R-1003J-D	pH Indicator Solution (for Midget & Slide comparators), Phenol Red, 4 oz
R-1003J-E	pH Indicator Solution (for Midget & Slide comparators), Phenol Red, 16 oz
R-1003J-F	pH Indicator Solution (for Midget & Slide comparators), Phenol Red, 32 oz
R-1003J-G	pH Indicator Solution (for Midget & Slide comparators), Phenol Red, gal
R-1003K-C	Cresol Red Indicator, 2 oz
R-1003K-E	Cresol Red Indicator, 16 oz
R-1003K-F	Cresol Red Indicator, 32 oz
R-1003L-C	Meta Cresol Purple Indicator, 2 oz
R-1003L-E	Meta Cresol Purple Indicator, 16 oz
R-1003M-C	Thymol Blue Indicator, 2 oz
R-1003M-E	Thymol Blue Indicator, 16 oz
R-1003U-A	Long Range Indicator, .75 oz
R-1003U-A-DB	Long Range Indicator, .75 oz, Dropper Bottle
R-1003U-C	Long Range Indicator, 2 oz
R-1003U-C-DB	Long Range Indicator, 2 oz, Dropper Bottle
R-1003U-E	Long Range Indicator, 16 oz

Numeric Listing of Reagents

REAGENT	DESCRIPTION
R-1003U-F	Long Range Indicator, 32 oz
R-1003U-G	Long Range Indicator, gal
R-1003W-C	BTB/MCP Indicator, 2 oz
R-1099-02-E	Buffer Solution pH 2.0, 16 oz
R-1099-04-C	Buffer Solution pH 4.0, 2 oz, Dispenser Tip
R-1099-04-E	Buffer Solution pH 4.0, 16 oz
R-1099-04-F	Buffer Solution pH 4.0, 32 oz
R-1099-04-G	Buffer Solution pH 4.0, gal
R-1099-07-C	Buffer Solution pH 7.0, 2 oz, Dispenser Tip
R-1099-07-D	Buffer Solution pH 7.0, 4 oz
R-1099-07-E	Buffer Solution pH 7.0, 16 oz
R-1099-07-F	Buffer Solution pH 7.0, 32 oz
R-1099-07-G	Buffer Solution pH 7.0, gal
R-1099-09-E	Buffer Solution pH 9.0, 16 oz
R-1099-10-C	Buffer Solution pH 10.0, 2 oz, Dispenser Tip
R-1099-10-D	Buffer Solution pH 10.0, 4 oz
R-1099-10-E	Buffer Solution pH 10.0, 16 oz
R-1099-10-F	Buffer Solution pH 10.0, 32 oz
R-1099-10-G	Buffer Solution pH 10.0, gal
R-1305Q-II	Silica Reagent #4, 50 g
R-1305Q-J	Silica Reagent #4, .25 lb
R-1305U-C	Silica Reagent #3, 2 oz
R-1305U-E	Silica Reagent #3, 16 oz
R-1306T-C	Silica Reagent #1, 2 oz
R-1306T-E	Silica Reagent #1, 16 oz
R-1306U-C	Silica Reagent #2, 2 oz
R-1306U-E	Silica Reagent #2, 16 oz
R-7022-C	Conductivity Neutralizing Solution, 2 oz, Dropper Bottle
R-7022-E	Conductivity Neutralizing Solution, 16 oz
R-7022-G	Conductivity Neutralizing Solution, gal
R-7046-J	Gallic Acid, .25 lb
R-7061-C	Sodium Thiosulfate 10%, 2 oz, Dropper Bottle
R-8001A	Chlorine F&T DPD/P - Reagent A, 10 g
R-8001B	Chlorine F&T DPD/P - Reagent B, .75 oz, Dropper Bottle
R-8002A	Bromine T DPD/P - Reagent A, 10 g
R-8002B	Bromine T DPD/P - Reagent B, .75 oz, Dropper Bottle
R-8003A	Molybdenum 3.3 - Reagent A, .75 oz
R-8003B	Molybdenum 3.3 - Reagent B, .75 oz
R-8004A	Phosphate 70 - Reagent A, .75 oz
R-8005A	Phosphate 3 - Reagent A, .75 oz

REAGENT	DESCRIPTION
R-8005B	Phosphate 3 - Reagent B, 10 g
R-8006A	Polymer Free - Reagent A, .75 oz
R-8006B	Polymer Free - Reagent B, .75 oz
R-8007A	Silica 60 - Reagent A, .75 oz
R-8007B	Silica 60 - Reagent B, .75 oz
R-8007C	Silica 60 - Reagent C, .75 oz
R-8008A	Silica 4 - Reagent A, .75 oz
R-8008B	Silica 4 - Reagent B, .75 oz
R-8008C	Silica 4 - Reagent C, .75 oz
R-8008D	Silica 4 - Reagent D, 10 g
R-8009A	Iron 4 - Reagent A , .75 oz
R-8009B	Iron 4 - Reagent B, .75 oz
R-8010A	Iron Ferrous 3 - Reagent A, .5 oz
R-8010B	Iron Ferrous 3 - Reagent B, .75 oz, Dispenser Tip
R-8011A	Iron Total 0.3 - Reagent A, .75 oz
R-8011B	Iron Total 0.3 - Reagent B, .75 oz
R-8012A	Copper 3 - Reagent A, .75 oz
R-8012B	Copper 3 - Reagent B, .75 oz
R-8013A	Copper Free 0.2 - Reagent A, .75 oz, Dropper Bottle
R-8013B	Copper Free 0.2 - Reagent B, .75 oz, Dropper Bottle
R-8013C	Copper Free 0.2 - Reagent C, .75 oz
R-8013D	Copper Free 0.2 - Reagent D, .75 oz
R-8013E	Copper Free 0.2 - Reagent E, 10 g
R-8014A	Phosphonate 30 - Reagent A, 10 g
R-8014B	Phosphonate 30 - Reagent B, 10 g
R-8014C	Phosphonate 30 - Reagent C, .75 oz
R-8015A	Hydrazine 1.5 - Reagent A, .75 oz
R-8015B	Hydrazine 1.5 - Reagent B, 10 g
R-8016A	Oxygen Scavenger - Reagent A, .75 oz
R-8016B	Oxygen Scavenger - Reagent B, .75 oz
R-8017A	Manganese 30 - Reagent A, .75 oz
R-8017B	Manganese 30 - Reagent B, 10 g
R-8018A	Boron 2 - Reagent A, .75 oz
R-8018B	Boron 2 - Reagent B, 10 g
R-8019A	Zinc 3 - Reagent A, .75 oz
R-8019B	Zinc 3 - Reagent B, 10 g
R-8019C	Zinc 3 - Reagent C, .75 oz
R-8019D	Zinc 3 - Reagent D, .75 oz, Dropper Bottle
R-8020A	Hydrogen Peroxide 2 - Reagent A, .75 oz, Dropper Bottle
R-8020B	Hydrogen Peroxide 2 - Reagent B, .75 oz, Dropper Bottle

REAGENT	DESCRIPTION
R-8020C	Hydrogen Peroxide 2 - Reagent C, .75 oz, Dropper Bottle
R-8021A	Nitrite 150 - Reagent A, 10 g
R-8021B	Nitrite 150 - Reagent B, .75 oz
R-8022A	Hardness Total 4 - Reagent A, .75 oz
R-8022B	Hardness Total 4 - Reagent B, .75 oz
R-8022C	Hardness Total 4 - Reagent C, .75 oz, Dropper Bottle
R-8022D	Hardness Total 4 - Reagent D, .75 oz, Dropper Bottle
R-8023A	Sodium Chloride (Salt) 80 - Reagent A, .75 oz, Dropper Bottle
R-8023B	Sodium Chloride (Salt) 80 - Reagent B, .75 oz, Dropper Bottle
R-8024A	Alkalinity Total 250 - Reagent A, .75 oz, Dropper Bottle
R-8024B	Alkalinity Total 250 - Reagent B, .75 oz
R-8025A	Sulfide 1 - Reagent A, .75 oz
R-8025B	Sulfide 1 - Reagent B, .75 oz, Dropper Bottle
R-8025C	Sulfide 1 - Reagent C, .75 oz
R-8026A	Hardness Calcium 4 - Reagent A, .75 oz
R-8026B	Hardness Calcium 4 - Reagent B, .75 oz
R-8026C	Hardness Calcium 4 - Reagent C, .75 oz, Dropper Bottle
R-8027A	pH 6.5-8.5 - Reagent A, .75 oz
R-8027B	pH 6.5-8.5 - Reagent B, .75 oz, Dropper Bottle
R-8027C	pH 6.5-8.5 - Reagent C, .75 oz, Dropper Bottle
R-8028A	Molybdenum 60 - Reagent A, 10 g
R-8028B	Molybdenum 60 - Reagent B, .75 oz
R-8028C	Molybdenum 60 - Reagent C, .75 oz
R-8028D	Molybdenum 60 - Reagent D, 10 g

REAGENT	DESCRIPTION
R-8029A	Hardness Total 500 - Reagent A, .75 oz
R-8029B	Hardness Total 500 - Reagent B, .75 oz
R-8029C	Hardness Total 500 - Reagent C, .75 oz
R-8030A	Hardness Calcium 800 - Reagent A, .75 oz
R-8030B	Hardness Calcium 800 - Reagent B, .75 oz
R-8030C	Hardness Calcium 800 - Reagent C, .75 oz
R-8030D	Hardness Calcium 800 - Reagent D, .75 oz
R-8031A	Monopersulfate 10 - Reagent A, 10 g
R-8031B	Monopersulfate 10 - Reagent B, .75 oz, Dropper Bottle
R-8031C	Monopersulfate 10 - Reagent C, .75 oz, Dropper Bottle
R-8032A	Cyanuric Acid 120 - Reagent A, .75 oz, Dispenser Tip
R-8033A	Azole 25 - Reagent A, .75 oz
R-8033B	Azole 25 - Reagent B, 10 g
R-8034A	Manganese 0.8 - Reagent A, 10 g
R-8034B	Manganese 0.8 - Reagent B, .75 oz
R-8034C	Manganese 0.8 - Reagent C, .75 oz
R-8034D	Manganese 0.8 - Reagent D, 75 oz
R-8035A	Nitrate 44 - Reagent A, 10 g
R-8035B	Nitrate 44 - Reagent B, 10 g
R-8035C	Nitrate 44 - Reagent C, 10 g
R-8039A	Chlorine Dioxide 8 - Reagent A, .75 oz, Dropper Bottle
R-8039B	Chlorine Dioxide 8 - Reagent B, 10 g

Numeric Listing of Parts

PART NO.	DESCRIPTION
2146	Bottle, .75 oz, poly, natural (for 2263, 2270, 2300)
2147	Bottle, .75 oz, poly, amber (for 2263, 2270, 2300)
2235-12	Dipper Spoon w/ paddle handle, .05 g, plastic, blue, 12-pack (for 2629)
2241	Bottle, 2 oz, poly, amber (for 2344)
2242	Bottle, 2 oz, poly, natural (for 2263, 2270, 2300)
2246	Bottle, 4 oz, poly, natural (for 2278 & 2313)
2251	Bottle, 16 oz, poly, natural (for 2282)
2253	Bottle, 32 oz, poly, amber (for 2282)
2254	Bottle, 32 oz, poly, natural (for 2282)
2263	Cap, Dropper, 18 mm, natural (for 2146, 2147, 2241, 2242)
2269	Cap, Dispenser, 18 mm, white (for 2146, 2147, 2241, 2242)
2270	Cap, 18 mm w/ liner, black (for 2146, 2147, 2205, 2241, 2242)
2278	Cap, 24 mm, black (for 2246)
2280	Cap, Dispenser, 28 mm, white (for 2249, 2251, 2253, 2254)
2282	Cap, 28 mm w/ liner, black (for 2249, 2251, 2253, 2254)
2300	Tip, 18 mm, natural, 50-pack (for 2146, 2147, 2241, 2242)
2300-50	Tip, 18 mm, natural, 50-pack (for 2146, 2147, 2241, 2242)
2629	Vial, 10 g w/ desiccant liner, plastic (for 2235)
2629-12	Vial, 10 g w/ desiccant liner, plastic, 12-pack (for 2235)
3235	Cap, Test Cell (5 mL), plastic, square (for 9017)
3243	Cap, Test Cell (11.5 mL), plastic, rectangular (for 4024 & 9018)
3267	Cap, Test Cell (5 mL), plastic, rectangular (for 4025)
4001	Beaker, 150 mL, glass
4005	Cylinder, Graduated (50 mL w/ 1.0 mL div), glass
4008	Flask, Erlenmeyer, 250 mL, glass
4015	Stirring Rod, 6", glass
4023	Test Tube, Calibrated (5 mL), glass
4023-6	Test Tube, Calibrated (5 mL), glass, 6-pack
4024	Test Cell, Calibrated (11.5 mL), plastic, rectangular (for 3243)
4025	Test Cell, Calibrated (5 mL), plastic, rectangular (for 3267)
4026	Dipper Spoon, 2 g, plastic, white
4027	Funnel, 58 mm, plastic
4028	Pipet (eye dropper), Calibrated (0.5 mL) w/ cap, plastic
4029	Pipet (eye dropper), Calibrated (0.5 & 1.0 mL), plastic
4030	Pipet (eye dropper), Calibrated (0.5 & 1.0 mL) w/ cap, plastic
4034	Sample Tube, Calibrated (25 mL), plastic
4035	Sample Tube, Calibrated (5 mL), plastic
4043	Flask, Erlenmeyer, 125 mL, glass
4044	Dipper Spoon, .15 g, plastic, white
4075	Pipet (eye dropper), Calibrated (0.5 mL), plastic

PART NO.	DESCRIPTION
4077	Pipet (eye dropper), Graduated (2 mL w/ 0.5 mL div) w/ cap, plastic
4078	Pipet (eye dropper), Graduated (3 mL w/ 0.5 mL div), plastic
4086-6	Stirring Rod, 5", plastic, 6-pack
5425	Color Card Comparator/Instruction, pH, Long Range, 3.0-11.0
6000	Brush, Long Viewpath Test Cell
6002	Brush, Test Cell
6003	Brush, Test Tube
6009	Filter Paper, 9.0 cm, #610, 100/box
6011	Filter Paper, 12.5 cm, #610, 100/box
6012	Filter Paper, 12.5 cm, #617, 50/box
6018	Test Paper, Dispenser Roll, pH, 1-14
6023	Test Paper, Chlorine, 10-200 ppm, 100 strips
6024	Stopper, Buret, rubber
6034	Test Paper, Dispenser Roll, Chlorine, 10-200
6054	Stand, Buret
6056	Clamp, Buret (single)
6086-10	Filter Discs, 25 mm diameter, 0.45 µm w/ holders, Milipore, 10-pack (for 6247 & 6260)
6101	Stirring Bar, Magnetic, 1"
6125T	Color Viewer, pH, 7.0-8.0 (for K-0206)
6190	SampleSizer, 10 & 25 mL, anodized aluminum (for 9056, 9057, 9058, 9198)
6247	Syringe (no filter disc holder or filter discs), 60 mL, plastic
6249	Filter Disc Holder, 25 mm, Millipore (for 6247 & 6260)
6255	Test Paper, pH, 0-14, colorpHast, 100 strips
6256	Test Paper, pH, 0-6, colorpHast, 100 strips
6257	Filter Discs, 25 mm diameter, 2.5 µm, Whatman, 100/box (for 6249)
6260	Syringe (no filter disc holder or filter discs), 30 mL, plastic
6261	Filter Discs, 25 mm diameter, 0.45
6433	Test Paper, Quat, 100-400 ppm, 100 strips
6535	AC Power Adapter, Colorimeter
6551	Vial, Dilution (50 mL w/ cap), Colorimeter
6552	USB Cable, Colorimeter
6649-4	Brush, Colorimeter Sample Cell, foam, 4-pack
6656	UV Light, SteriPEN (for all tests requiring UV digestion)
6657	Stirring Bar, Spinvane, Magnetic, Colorimeter
7009	Case, Slide Comparator, Ribbed w/ compartments, fits 22 mL/60 mL bottles, 11" w x 6" d x 5" h, plastic, blue
7012	Case, Slide Comparator, Non-ribbed, fits 22 mL/60 mL bottles, 11" w x 6" d x 5" h, plastic, blue
7058	Case, Dual Midget Comparator, Non-ribbed, fits 22 mL bottles, 7.75" w x 4.5" d x 3.75" h, plastic, blue
7060	Case, Drop Test, Ribbed, fits 22 mL/60 mL bottles, 11.5" w x 5.125" d x 2" h, plastic, blue
7061	Case, Drop Test, Non-ribbed, fits 22 mL/60 mL bottles, 11.5" w x 5.125" d x 2" h, plastic, blue
7145	Saddlebag, water-resistant, 600 denier polyester, black (for 9502, 9503, 9504)

PART NO.	DESCRIPTION
7146	Case, Colorimeter Soft Carrying, 11" w x 7" d x 4.625" h, 600 denier polyester, gray (requires foam insert 7203)
9007	Pipet (eye dropper), Calibrated (0.5 & 1.0 mL) w/ blue cap, plastic
9009	Pipet (eye dropper), Calibrated (0.5 & 1.0 mL) w/ yellow cap, plastic
9010	Pipet (eye dropper), Calibrated (0.5 & 1.0 mL) w/ red cap, plastic
9017	Test Cell, Calibrated (5 mL) w/ cap, plastic, square
9018	Test Cell, Calibrated (5, 10, 15 cm) w/ cap, plastic, rectangular (for Long Viewpath comparator)
9021	Test Tube, Mixing, Calibrated (5, 10, 14, 15, 17.5 mL) w/ stopper, glass
9025	2-Standard Comparator, Orthophosphate (high range), Stannous Chloride, 30 & 60 ppm
9040	Midget Comparator, Chlorine (free/total), DPD, 0.2-3.0 ppm
9048	Midget Comparator, Chlorine (free/total), DPD, 1.5-10 ppm
9052	Midget Comparator, pH, Long Range, 3.0-10.0
9053	Midget Comparator, pH, Phenol Red, 6.8-8.2
9054	Midget Comparator, Orthophosphate (low range), Stannous Chloride, 0-10 ppm
9067	Slide Comparator, pH, Phenol Red, 6.8-8.4
9068	Slide Comparator, pH, Cresol Red, 7.2-8.8
9070	Slide Comparator, pH, Thymol Blue, 8.0-9.6
9082	Slide Comparator, Chlorine (free/total), DPD, 0-3.0 ppm
9083	Slide Comparator, Chlorine (free/total), DPD, 1.0-10 ppm
9085	Slide Comparator, Chlorine (total), OT, 0.1-4.0 ppm
9086	Slide Comparator, Chlorine (total), OT, 0.2-3.0 ppm
9088	Slide Comparator, Chlorine (total), OT, 0.2-12 ppm
9110	Slide Comparator, Orthophosphate (high range), Stannous Chloride, 5-100 ppm
9111	Slide Comparator, Orthophosphate (low range), Stannous Chloride, 0-25 ppm
9187	Sample Tube, Plain w/ white dot on bottom, plastic
9188	Sample Tube, Graduated (50 mL) w/ cap, plastic
9189	Base, Slide Comparator, Enslow (for test cells)

PART NO.	DESCRIPTION
9190	Base, Slide Comparator (for test tubes)
9198	Sample Tube, Graduated (25 mL) w/ cap, plastic
9198B	Sample Tube, Graduated (25 mL) w/ cap & blue dot, plastic
9198G	Sample Tube, Graduated (25 mL) w/ cap & green dot, plastic
9198LB	Sample Tube, Graduated (25 mL) w/ cap & light blue dot, plastic
9198O	Sample Tube, Graduated (25 mL) w/ cap & orange dot, plastic
9198P	Sample Tube, Graduated (25 mL) w/ cap & purple dot, plastic
9198R	Sample Tube, Graduated (25 mL) w/ cap & red dot, plastic
9198W	Sample Tube, Graduated (25 mL) w/ cap & white dot, plastic
9198Y	Sample Tube, Graduated (25 mL) w/ cap & yellow dot, plastic
9199	Lightbox, Gepe Slim Lite w/ adapter, batteries & case
9200	Lightbox Stand (for 9199)
9236	Slide Comparator, Bromine (total), DPD, 2.0-10 ppm
9265	Magnetic Stirrer, SpeedStir Start-up Pack w/ sample tube, magnetic stirring bar & batteries
9289	Hose, Buret, .375" dia. x 10" w/ bead & tip (glass), rubber
9297	Midget Comparator, Chlorine (total), OT, 5-250 ppm
9315	Test Paper, pH, 1.8-3.8, 200 strips
9341	Buret, Stopcock, 25 mL, glass
9342	Buret, Stopcock, 10 mL (0.1 mL div), glass
9343	Buret, Stopcock, 10 mL (0.1 mL div)/500 ppm (5 ppm div), glass
9350	Midget Comparator, Orthophosphate (high range), Stannous Chloride, 10-100 ppm
9352-2B	Insert (base), Deluxe Case, cut for 63 2 oz bottles, foam (for 9352)
9502	Case, Colorimeter Hard Carrying w/ molded insert, 20" w x 15.625" d x 5.5" h, polypropylene, gray
9803	Syringe Filtration System Start-up Pack w/ 25 mm filter disc holder (no filter discs), 60 mL, plastic

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