ELaMotte



LaMotte Test Methods

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.
- 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 eight color standards in the Octa-Slide 2 can be viewed at once against a precision matched color bar top-loaded next to the sample tube.

LRC Comparator

This innovative design replaces the Axial Reader with a far more simplistic and significantly improved optical system. Simply place one reacted sample in the front and one unreacted sample behind it and let the light shine down into both tubes. Precision matched glass ampoules are in the slide bar so even the most sensitive low range colors can be matched one-on-one with extraordinary ease and confidence.

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



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. More information regarding the ColorQ 2x meter located on the back cover.



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.

Direct Reading Titrator

The Direct Reading Titrator is a 1.0 mL microburet calibrated to allow direct reading of the test result. Each Titrator has a specific range, but may be refilled to test higher concentrations.

Dropper Pipet

The drop count test uses a pipet to provide fast, reliable measurements in the field. The number of drops used to obtain a color change is multiplied by a given factor to produce the test result.



Automatic Buret

The self-zeroing automatic buret is calibrated from 0 to 10 mL in 0.1 mL increments. It is available with a squeeze valve (pinchcock), glass stopcock, or Teflon® stopcock.

Dropper Bottle

The dropper bottle test uses bottle tips which deliver a consistent standard drop size to add titrant to the sample. As with the drop count test, the number of drops used to complete the reaction is multiplied by a given equivalence factor to determine the concentration. Many dropper bottle tests use different sample sizes for different equivalences.





LaMotte 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.













Single Factor Test Strips

| Test Factor | Code | Range (ppm) | # of Tests Per Vial | Values (ppm) |
|-------------------------------|----------|-------------|---------------------|---|
| Chlorine Dioxide | 2999LR | 0-10 | 50 | 0, 0.25, 0.5, 1, 3, 10 |
| Chlorine Dioxide | 3002 | 0-500 | 50 | 0, 10, 25, 50, 100, 250, 500 |
| Chlorine, Free, Low Range | 2964-G | 0-10 | 25 | 0, 0.25, 0.5, 1, 3, 5, 10 |
| Chlorine, Total, Low Range | 2963LR-G | 0-10 | 25 | 0, 0.25, 0.5, 1, 3, 10 |
| Chlorine, Free, High Range* | 3031 | 0-800 | 50 | 0, 50, 100, 250, 500, 800 |
| Chlorine, Total | 2979 | 0-5 | 50 | 0, 0.5, 1, 3, 5 |
| Hardness, Low Range | 2981 | 0-180 | 50 | 0, 30, 60, 120, 180 |
| pH, Wide Range | 2974 | 4-10 (pH) | 50 | 4, 5, 6, 7, 8, 9, 10 |
| Peracetic Acid, Low Range | 3000LR | 0-50 | 50 | 0, 5, 10, 20, 30, 50 |
| Peracetic Acid | 3000 | 0-160 | 50 | 0, 10, 20, 50, 85, 160 |
| Peracetic Acid, High Range | 3000HR | 0-1,000 | 50 | 0, 50, 100, 250, 500, 1000 |
| Hydrogen Peroxide | 2984LR | 0-50 | 25 | 0, 1, 3, 10, 30, 50 |
| Hydrogen Peroxide, High Range | 2984 | 0-90 | 25 | 0, 15, 30, 50, 90 |
| QAC, Dual Range | 2934 | 0-80, 0-800 | 50 | 0, 10, 20, 40, 80; 0, 100, 200, 400, 800 |

^{*}See also chlorine test papers below.

Multi-Factor Test Strips

| Test Factor | Code | Range (ppm) | # of Tests Per Factor/Per Vial | Values (ppm) |
|--------------------------------|--------|----------------------------------|--------------------------------|--|
| Iron & Copper | 2994 | 0-5 (Iron) 0-3 (Copper) | 25 25 | 0, 0.3, 0.5, 1, 3, 5 0, 0.3, 0.6, 1, 3 |
| Wide Range pH & Total Chlorine | 2987-G | 4-10 (pH) 0-50 (TCI) | 25 25 | 4, 5, 6, 7, 8, 9, 10 0, 1, 5, 10, 20, 50 |
| Nitrate & Nitrite | 2996 | 0-50 (Nitrate) 0-10 (Nitrite) | 50 50 | 0, 5, 10, 25, 50 (NO ₃ –N) 0, 0.5, 1, 5, 10 (NO ₂ –N) |

Sanitizer Test Papers

The chlorine and iodine test papers are chemically treated paper strips. These are packaged with a color chart in a waterproof plastic vial. Codes 2951 and 2951HR are test strips. They are also packaged with a color chart in a waterproof plastic vial. The QAC strips are specifically formulated to read all types of QAC.

| Test Factor | Code | Range (ppm) | # of Tests Per Vial | Values (ppm) |
|--------------------|---------|--------------|------------------------|----------------------------|
| Chlorine | 4250-BJ | 10-200 ppm | 200 | 10, 50, 100, 200 |
| lodine | 2948-BJ | 12-100 ppm | 200 | 12, 25, 50, 100 |
| QAC | 2951 | 50-400 ppm | 100 | 50, 100, 200, 400 |
| QAC | 3072-J | 0-500 ppm | 100 | 0, 100, 200, 300, 400, 500 |
| QAC, High Range | 2951HR | 200-1500 ppm | 50 | 200, 400, 600, 1000, 1500 |



LaMotte Colorimeter Kits

ColorQ® 2x High Range Chlorine Colorimeter Kit

Order Code 2100

Aim High with the LaMotte ColorQ 2X High Range Chlorine Meter Kit. A perfect choice for analyzing your flushing and new main chlorine applications. Its simple operation allows swift measuring of High Range Total Chlorine can be tested up to 750 ppm, includes reagents for 100 tests. Go digital and waterproof without breaking the bank!

| Specifications | |
|----------------------|---|
| Instrument Type: | Dual Wavelength, waterproof, direct reading, colorimeter with Bluetooth communication |
| Digital Display: | 128 x 64 graphic display |
| Wavelengths: | 525 nm and 568nm |
| Wavelength Accuracy: | ±2nm |
| Light Sources: | LEDs |
| Detector: | Silicon photodiodes |
| Languages: | English |
| Interface: | Push button and graphical display |
| Power: | DC 2.4 - 3.4V, |
| Battery: | 2AAbatteries, ~0.40 A |
| Size (LxWxH): | 3.9 X 2.9 X 3.9 inches |
| Weight: | 7.2 oz, 204 g |
| | |











ColorQ® 2x Low Range Chlorine Colorimeter Kit

Order Code 2102

Go Low with a **LaMotte ColorQ 2x Low Range Chlorine Meter Kit**! This compact meter can detect **Low Chlorine Residuals down to 0.05 ppm and up to 4.00 ppm**, includes reagents for 100 tests. The double-wide tubes, precise optics, and DPD reagents make the ColorQ2X ideal for compliance monitoring. This fast and easy to use, waterproof meter will help your budget go low, too!





Order Code 2102











| Specifications | |
|----------------------|---|
| Instrument Type: | Dual Wavelength, waterproof, direct reading, colorimeter with Bluetooth communication |
| Digital Display: | 128 x 64 graphic display |
| Wavelengths: | 525 nm and 568nm |
| Wavelength Accuracy: | ±2nm |
| Light Sources: | LEDs |
| Detector: | Silicon photodiodes |

| Languages: | English |
|---------------|-----------------------------------|
| Interface: | Push button and graphical display |
| Power: | DC 2.4 - 3.4V, |
| Battery: | 2AAbatteries, ~0.40 A |
| Size (LxWxH): | 3.9 X 2.9 X 3.9 inches |
| Weight: | 7.2 oz, 204 g |
| | |

LaMotte Individual Test Kits

Shipping Codes & Weights

Shipping codes and weights for shipping are included in this catalog for your convenience. The shipping code will refer to one of the following in this chart. Weight will be in pounds and enclosed in [].

| Shipping Code | Description |
|---------------|---|
| NH | Non Hazardous, No Fees |
| HF | Hazardous Materials, Air & Ground Fees |
| R1 | Small Quantity Hazardous Materials, No Fees |
| R2, R3, & LQ | Hazardous Materials, Air Fees Only |
| | |



| Order Code | Test System | Range/Sensitivity | # of Tests (# Reagents) | Prop 65 | Shipping Code (Weight/Lbs) |
|--|--|---|--|--|---|
| ACIDITY Some cl | leaning processes require acidic produ | icts. To determine the strength of the acid, titrate the | e sample with a standard | alkali. | |
| 7182-01 | HCl, H ₂ SO ₄ , H ₃ PO ₄ Dropper Bottle | 1 drop = 0.1 or 1.0% (as the particular acid) | 50 at 10% (2) | В | R1 (1) |
| with a standard determines the o | acid to the phenolphthalein (P) endpoi other half of the carbonate and all of tl | ss waters used in foods and beverages. The three pri int determines all of the hydroxyl and ½ of the carbo he bicarbonate. P alkalinity is sometimes called activ ium to eliminate carbonate and allow direct titration | nate alkalinity. Titration to ve alkalinity. Inactive alkaliı | the total (T) al | lkalinity endpoint |
| 7240-02 | P & T Alkalinity Dropper Bottle | 1 drop = 10, 25, or 50 ppm as CaCO ₃ | 100 at 500 ppm (3) | В | R1 (2) |
| 4491-DR-01 | Total Alkalinity Direct Reading Titrator | 0-200 ppm/4ppm as CaCO ₃ | 50 at 200 ppm (2) | | NH (1) |
| 4533-DR-01 | P & T Alkalinity Direct Reading Titrator | $0200 \text{ ppm/4 ppm as } \text{CaCO}_3$ | 50 at 200 ppm (3) | С | NH (1) |
| | | pment in the food, beverage and other process area dard acid. The 8225 kit uses a single reagent that co | | | |
| cleaners. | | | | | LO IS TO CHOMINACCO |
| | Direct Reading Titrator | 0-10%/0.2% NaOH | 50 at 10% (4) | | R1 (1) |
| 7516-DR-02 | · | | | | |
| 7516-DR-02 8225-01 | Direct Reading Titrator | 0-10%/0.2% NaOH | 50 at 10% (4) | | R1 (1) |
| 7516-DR-02 8225-01 7181-01 | Direct Reading Titrator Dropper Pipet | 0-10%/0.2% NaOH 1 drop = 0.25% NaOH, 1 drop = 0.01% Na ₂ O | 50 at 10% (4) 50 (1) | C | R1 (1) R2 (2) |
| 7516-DR-02 8225-01 7181-01 8226-01 CHLORIDE High (| Direct Reading Titrator Dropper Pipet Dropper Bottle Dropper Pipet | 0-10%/0.2% NaOH 1 drop = 0.25% NaOH, 1 drop = 0.01% Na ₂ O 1 drop = 0.1 or 1% NaOH | 50 at 10% [4] 50 (1) 50 at 10% (3) 50 (3) | С | R1 (1) R2 (2) R1 (1) R2 (2) |
| 7516-DR-02 8225-01 7181-01 8226-01 CHLORIDE High nitrate is used to | Direct Reading Titrator Dropper Pipet Dropper Bottle Dropper Pipet chloride concentrations may affect the | 0-10%/0.2% NaOH 1 drop = 0.25% NaOH, 1 drop = 0.01% Na ₂ O 1 drop = 0.1 or 1% NaOH 1 drop = 0.01% NaOH | 50 at 10% [4] 50 (1) 50 at 10% (3) 50 (3) | С | R1 (1) R2 (2) R1 (1) R2 (2) |
| | Direct Reading Titrator Dropper Pipet Dropper Bottle Dropper Pipet chloride concentrations may affect the odetermine concentrations. | 0-10%/0.2% Na0H 1 drop = 0.25% Na0H, 1 drop = 0.01% Na ₂ 0 1 drop = 0.1 or 1% Na0H 1 drop = 0.01% Na0H e taste of foods and beverages and can increase contacts. | 50 at 10% (4) 50 (1) 50 at 10% (3) 50 (3) rosion of metal parts. An a | С | R1 (1) R2 (2) R1 (1) R2 (2) itration using silve |
| 7516-DR-02 8225-01 7181-01 8226-01 CHLORIDE High nitrate is used to 7172-02 7459-02 CHLORINE Chloriused for concen | Direct Reading Titrator Dropper Pipet Dropper Pipet Chloride concentrations may affect the odetermine concentrations. Dropper Bottle Salinity Direct Reading Titrator ine is a sanitizer for many applications trations from 0-10 ppm; the FAS-DPD | 0-10%/0.2% Na0H 1 drop = 0.25% Na0H, 1 drop = 0.01% Na ₂ 0 1 drop = 0.1 or 1% Na0H 1 drop = 0.01% Na0H e taste of foods and beverages and can increase cord | 50 at 10% [4] 50 [1] 50 at 10% [3] 50 [3] rosion of metal parts. An a 120 at 100 ppm [5] 50 at 20 ppt [2] ne chlorine, depending on ore DPD and refilling the ti | C argentometric t the concentrat trator. Test strip | R1 (1) R2 (2) R1 (1) R2 (2) ditration using silver R1 (2) NH (1) dion. DPD is usually as or papers can re |
| 7516-DR-02 8225-01 7181-01 8226-01 CHLORIDE High onitrate is used to 7172-02 7459-02 CHLORINE Chloriused for concentas high as 800 p | Direct Reading Titrator Dropper Pipet Dropper Pipet Chloride concentrations may affect the odetermine concentrations. Dropper Bottle Salinity Direct Reading Titrator ine is a sanitizer for many applications trations from 0-10 ppm; the FAS-DPD | 0-10%/0.2% Na0H 1 drop = 0.25% Na0H, 1 drop = 0.01% Na ₂ 0 1 drop = 0.1 or 1% Na0H 1 drop = 0.01% Na0H e taste of foods and beverages and can increase cord 1 drop = 10, 25, or 50 ppm Cl- 0-20 ppt/0.4 ppt Salinity s. Several different methods are available to determine test can titrate higher concentrations by adding more | 50 at 10% [4] 50 [1] 50 at 10% [3] 50 [3] rosion of metal parts. An a 120 at 100 ppm [5] 50 at 20 ppt [2] ne chlorine, depending on ore DPD and refilling the ti | C argentometric t the concentrat trator. Test strip | R1 (1) R2 (2) R1 (1) R2 (2) ditration using silve R1 (2) NH (1) dion. DPD is usually as or papers can re |
| 7516-DR-02 8225-01 7181-01 8226-01 CHLORIDE High nitrate is used to 7172-02 7459-02 CHLORINE Chloriused for concentas high as 800 p | Direct Reading Titrator Dropper Pipet Dropper Pipet Chloride concentrations may affect the odetermine concentrations. Dropper Bottle Salinity Direct Reading Titrator ine is a sanitizer for many applications trations from 0-10 ppm; the FAS-DPD | 0-10%/0.2% Na0H 1 drop = 0.25% Na0H, 1 drop = 0.01% Na ₂ 0 1 drop = 0.1 or 1% Na0H 1 drop = 0.01% Na0H e taste of foods and beverages and can increase cord 1 drop = 10, 25, or 50 ppm Cl- 0-20 ppt/0.4 ppt Salinity s. Several different methods are available to determine test can titrate higher concentrations by adding more | 50 at 10% [4] 50 [1] 50 at 10% [3] 50 [3] rosion of metal parts. An a 120 at 100 ppm [5] 50 at 20 ppt [2] ne chlorine, depending on ore DPD and refilling the ti | C argentometric t the concentrat trator. Test strip | R1 (1) R2 (2) R1 (1) R2 (2) ditration using silve R1 (2) NH (1) dion. DPD is usually as or papers can re |
| 7516-DR-02 8225-01 7181-01 8226-01 CHLORIDE High Initrate is used to 7172-02 7459-02 CHLORINE Chloriused for concentas high as 800 p DPD KITS 3308-01* | Direct Reading Titrator Dropper Pipet Dropper Bottle Dropper Pipet chloride concentrations may affect the odetermine concentrations. Dropper Bottle Salinity Direct Reading Titrator line is a sanitizer for many applications trations from 0-10 ppm; the FAS-DPD ppm. The iodometric titration is used for | 0-10%/0.2% Na0H 1 drop = 0.25% Na0H, 1 drop = 0.01% Na ₂ 0 1 drop = 0.1 or 1% Na0H 1 drop = 0.01% Na0H e taste of foods and beverages and can increase cord 1 drop = 10, 25, or 50 ppm Cl- 0-20 ppt/0.4 ppt Salinity s. Several different methods are available to determinate test can titrate higher concentrations by adding moor higher ppm and % concentrations (see also the 12) | 50 at 10% (4) 50 (1) 50 at 10% (3) 50 (3) rosion of metal parts. An a 120 at 100 ppm (5) 50 at 20 ppt (2) ne chlorine, depending on one DPD and refilling the ti | C argentometric t the concentrat trator. Test strip | R1 (1) R2 (2) R1 (1) R2 (2) Sitration using silve R1 (2) NH (1) ion. DPD is usually as or papers can re |
| 7516-DR-02 8225-01 7181-01 8226-01 CHLORIDE High Initrate is used to 7172-02 7459-02 CHLORINE Chloriused for concen | Direct Reading Titrator Dropper Pipet Dropper Bottle Dropper Pipet chloride concentrations may affect the odetermine concentrations. Dropper Bottle Salinity Direct Reading Titrator line is a sanitizer for many applications trations from 0-10 ppm; the FAS-DPD ppm. The iodometric titration is used for DPD Tablet Octa-Slide | 0-10%/0.2% Na0H 1 drop = 0.25% Na0H, 1 drop = 0.01% Na ₂ 0 1 drop = 0.1 or 1% Na0H 1 drop = 0.01% Na0H e taste of foods and beverages and can increase cord 1 drop = 10, 25, or 50 ppm Cl- 0-20 ppt/0.4 ppt Salinity s. Several different methods are available to determinates can titrate higher concentrations by adding moor higher ppm and % concentrations (see also the 12 o.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm Cl | 50 at 10% [4] 50 (1) 50 at 10% [3] 50 (3) rosion of metal parts. An a 120 at 100 ppm [5] 50 at 20 ppt [2] ne chlorine, depending on ore DPD and refilling the tire 200 Colorimeter and Trace | C argentometric t the concentrat trator. Test strip | R1 (1) R2 (2) R1 (1) R2 (2) itration using silve R1 (2) NH (1) ion. DPD is usually os or papers can re). NH (1) |

^{*(}NPDWR) EPA Accepted. Prop 65: C: 📤 WARNING Cancer - www.P65Warnings.ca.gov/product; B: 📤 WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov/product

LaMotte Individual Test Kits





| Order Code | Test System | Range/Sensitivity | # of Tests (# Reagents) | Prop 65 | Shipping Code (Weight/Lbs) |
|---|--|---|--|------------------------|--|
| IODOMETRIC I | KITS | | | | |
| 4497-01 | Dropper Pipet | 1 drop = 10 ppm Cl | 50 at 200 ppm (3) | С | R2 (1) |
| 4497-DR-01 | Direct Reading Titrator | 0–200 ppm/4 ppm Cl | 50 at 200 ppm (3) | С | R2 (1) |
| 4501-01 | Dropper Pipet | 1 drop = 1 ppm Cl | 50 (3) | С | R2 (1) |
| 7105-03 | Direct Reading Titrator | 0-10%/0.2% Cl | 50 at 10% (3) | | R1 (2) |
| 7894-01 | Dropper Pipet | 1 drop = 0.005%, 0.05%, or 0.5% Cl | 50 at 0.1, 1.0, or 10% (3) | | R1 (1) |
| available. Chlori | ite up to 1,000 ppm and chlorine up to | ng food and beverage equipment and in some do 2 ppm will not interfere with the strip determin e also the DC-1500 colorimeter, p. 9 and test str | ations. The field kit and meter u | | |
| 2999LR | Test Strip | 0, 0.25, 0.50, 1.0, 3.0, 10 ppm | 50 | | NH (1) |
| 3002 | Test Strip | 0, 10, 25, 50, 100, 250, 500 ppm | 50 | | NH (1) |
| DETERGENTS D blue method. | letergents are surfactants that are use | ed in cleaners to break up dirt and grease. Anion | ic detergents (ABS) are tested ι | using a modific | ation of the methylene |
| 4507-02 | Dropper Pipet | 1 drop = 1.0 ppm Detergent | 60 at 5.0 ppm (3) | В | R1 (2) |
| | cium and magnesium are the primary of hardness is the commonly used met | components of hardness. They interfere with so hod. | ap/suds formation and can lea | ve undesirable | deposits on surfaces. |
| | | | | | |
| 7171-02 | Total Hardness Dropper Bottle | 1 drop = 10, 25, or 50 ppm $CaCO_3$ | 100 (3) | R | R1 (1) |
| 7171-02 7246-02 | Total Hardness Dropper Bottle Total Hardness Dropper Bottle | 1 drop = 10, 25, or 50 ppm CaCO ₃ 1 drop = 2, 5, or 10 ppm CaCO ₃ | 100 (3) 100 (3) | R R | R1 (1) R1 (1) |
| | | 1 11 9 | | | |
| 7246-02 4824-LT-02 | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydr | 1 drop = 2, 5, or 10 ppm $CaCO_3$ 1 drop = 10 ppm or 1 gpg $CaCO_3$ | 100 (3) 50 at 200 ppm or 20 gpg (5) | R | R1 (1) R1 (1) |
| 7246-02 4824-LT-02 HYDROGEN PER | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydr | 1 drop = 2, 5, or 10 ppm CaCO ₃ 1 drop = 10 ppm or 1 gpg CaCO ₃ Tablet indicator | 100 (3) 50 at 200 ppm or 20 gpg (5) | R | R1 (1) R1 (1) |
| 7246-02 4824-LT-02 HYDROGEN PER and % determin | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydrations. | 1 drop = 2, 5, or 10 ppm CaCO ₃ 1 drop = 10 ppm or 1 gpg CaCO ₃ Tablet indicator rogen peroxide are used as oxidizers and bleach | 100 (3) 50 at 200 ppm or 20 gpg (5) ing agents in water systems. loc | R | R1 (1) R1 (1) on is used for ppm |
| 7246-02 4824-LT-02 HYDROGEN PEF and % determin 7138-DB-01 | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydroations. Iodometric Dropper Bottle | $1 drop = 2, 5, or 10 ppm CaCO_3$ $1 drop = 10 ppm or 1 gpg CaCO_3$ Tablet indicator $rogen peroxide are used as oxidizers and bleach$ $1 drop = 5 ppm H_2O_2$ | 100 (3) 50 at 200 ppm or 20 gpg (5) ing agents in water systems. loc | R | R1 (1) R1 (1) on is used for ppm HF (2) |
| 7246-02 4824-LT-02 HYDROGEN PEF and % determin 7138-DB-01 7150-01 | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydroations. Iodometric Dropper Bottle Iodometric Dropper Bottle | $1 drop = 2, 5, or 10 ppm CaCO_3$ $1 drop = 10 ppm or 1 gpg CaCO_3$ Tablet indicator rogen peroxide are used as oxidizers and bleachi $1 drop = 5 ppm H_2O_2$ $1 drop = 0.5\% H_2O_2$ | 100 (3) 50 at 200 ppm or 20 gpg (5) ing agents in water systems. loc 50 (4) 50 (4) | R | R1 (1) R1 (1) on is used for ppm HF (2) HF (2) |
| 7246-02 4824-LT-02 HYDROGEN PEF and % determin 7138-DB-01 7150-01 2984 2984LR IODINE lodine is | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydrations. Iodometric Dropper Bottle Iodometric Dropper Bottle Test Strips Test Strips | $1 drop = 2, 5, or 10 ppm CaCO_3$ $1 drop = 10 ppm or 1 gpg CaCO_3$ $Tablet indicator$ $rogen peroxide are used as oxidizers and bleachi$ $1 drop = 5 ppm H_2O_2$ $1 drop = 0.5\% H_2O_2$ $0, 15, 30, 50, 90 ppm$ $0, 1, 3, 10, 30, 50 ppm$ $d warewash processes. Health Departments usu$ | 100 (3) 50 at 200 ppm or 20 gpg (5) ing agents in water systems. loc 50 (4) 50 (4) 25 (1) 50 (1) | R dometric titratio | R1 (1) R1 (1) on is used for ppm HF (2) HF (2) NH (1) NH (1) |
| 7246-02 4824-LT-02 HYDROGEN PEF and % determin 7138-DB-01 7150-01 2984 2984LR IODINE lodine is | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydrations. Iodometric Dropper Bottle Iodometric Dropper Bottle Test Strips Test Strips s a sanitizer used in food/beverage and | $1 drop = 2, 5, or 10 ppm CaCO_3$ $1 drop = 10 ppm or 1 gpg CaCO_3$ $Tablet indicator$ $rogen peroxide are used as oxidizers and bleachi$ $1 drop = 5 ppm H_2O_2$ $1 drop = 0.5\% H_2O_2$ $0, 15, 30, 50, 90 ppm$ $0, 1, 3, 10, 30, 50 ppm$ $d warewash processes. Health Departments usu$ | 100 (3) 50 at 200 ppm or 20 gpg (5) ing agents in water systems. loc 50 (4) 50 (4) 25 (1) 50 (1) | R dometric titratio | R1 (1) R1 (1) on is used for ppm HF (2) HF (2) NH (1) NH (1) |
| 7246-02 4824-LT-02 HYDROGEN PEF and % determin 7138-DB-01 7150-01 2984 2984LR IODINE lodine is many other oxid | Total Hardness Dropper Bottle Calcium, Magnesium, Total Hardness Dropper Bottle ROXIDE Various concentrations of hydrations. Iodometric Dropper Bottle Iodometric Dropper Bottle Test Strips Test Strips s a sanitizer used in food/beverage and dizers, iodine may be titrated with a st | $1 drop = 2, 5, or 10 ppm CaCO_3$ $1 drop = 10 ppm or 1 gpg CaCO_3$ $Tablet indicator$ $rogen peroxide are used as oxidizers and bleaching 1 drop = 5 ppm H_2O_2$ $1 drop = 0.5\% H_2O_2$ $0, 15, 30, 50, 90 ppm$ $0, 1, 3, 10, 30, 50 ppm$ $d warewash processes. Health Departments usu and drop the solution.$ | 100 (3) 50 at 200 ppm or 20 gpg (5) ing agents in water systems. loc 50 (4) 50 (4) 25 (1) 50 (1) ally require a concentration of 1 | R dometric titratio | R1 (1) R1 (1) on is used for ppm HF (2) HF (2) NH (1) NH (1) or warewash. As with |

^{*(}NPDWR) EPA Accepted. Prop 65: C: 📤 WARNING Cancer - www.P65Warnings.ca.gov/product; R: 📤 WARNING Reproductive Harm - www.P65Warnings.ca.gov/product;

B: A WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov/product

LaMotte Individual Test Kits

| Order Code | Test System | Range/Sensitivity | # of Tests (# Reagents) | Prop 65 | Shipping Code (Weight/Lbs) |
|--|--|---|--|--------------------------------------|---|
| | sent in many natural waters and can i ous and ferric iron. (See p. 9 for the co | mpart a foul taste in beverages. The bipyridal metho lorimeter version.) | od is used for analysis of to | tal iron. A modit | fication of this test ca |
| 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) | | R1 (1) |
| 3347-01 | Ferrous/Ferric Iron Octa-Slide | 0.5, 1.0, 2.0, 3.0, 4.0, 6.0, 8.0, 10.0 ppm Fe | 100 (3) | С | R1 (1) |
| NITRATE Nitrate which is then rea | can be present in natural waters. The acted to form a pink color. | EPA limit on nitrate is 10 ppm as -N, 44 ppm as -N | 10_3 . The method employs z | inc to reduce th | ne nitrate to nitrite, |
| 3354-01 | Zinc Reduction Octa-Slide | 0, 1, 2, 4, 6, 8, 10, 15 ppm NO ₃ N | 50 (2) | | NH (2) |
| 2996 | Test Strips | 0, 5, 10, 25, 50 ppm NO_3 – 0, 0.5, 1, 5, 10 ppm NO_2 – N | 50 (1) | | NH [1] |
| | a strong oxidizer used in some food/li fonate colorimeter must be used. | peverage operations. DPD can be used to test solution | ons that contain only ozon | e. However, if ch | nlorine is also present |
| 3249 DC1500-OZ | Indigo Trisulfonate Colorimeter | 0-0.4 ppm/0.04 ppm 0 ₃ | 100 (3) | | NH [7] |
| titration of the p | eroxide followed by an iodometric titr | combination is used to sanitize where the use of ot ation of the peracetic acid. One may also test the pe alence. There are also 2 test strips available. | | | |
| 7191-02 | Dropper Bottle | 1 drop = 50 ppm Peroxide 1 drop = 6, 15 or 300 ppm Peracetic Acid | 50 (5) | | R1 (2) |
| 3000 | Test Strips | 0, 10, 20, 40, 60, 85, 160 ppm | 50 | | NH (1) |
| 3000LR | Test Strips | 0, 5, 10, 20, 30, 50 ppm | 50 | | NH (1) |
| 3000HR | Test Strips | 0, 50, 100, 250, 500, 1000 | 50 | | NH [1] |
| | ost common analyses, pH must be co ors and pH test strips are below. See | ontrolled and monitored because it plays an essentians. 11-12 for pH meters. | al role in almost all chemic | al and biologica | l processes. Field kits |
| 2109-01 | Bromthymol Blue | 6.0-7.4 pH | | | NH (1) |
| 2110-01 | Phenol Red | 6.8-8.2 pH | | | NH (1) |
| 2111-01 | Cresol Red | 7.2-8.6 pH | | | NH (1) |
| 2112-01 | Thymol Blue | 8.0-9.4 pH | | | NH (1) |
| 5858-01 | Precision Wide Range | 3.0-6.5 рН, 7.0-10.5 рН | | В | R1 (1) |
| OH TEST PAPERS | 3 | | | | |
| 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 | Test Papers | 0-13 pH/1 pH | 1 Roll | | NH (1) |
| 2956 | Test Papers | 1-11 pH/1 pH | 1 Roll | | NH (1) |
| | | | | | |
| 3-2950 | pH Indicator Sticks | 0-14/1 pH | 100 Strips | | NH (1) |
| | pH Indicator Sticks pH Wide Range | 0-14/1 pH 4-10 pH/1 pH | 100 Strips 50 Strips | | NH (1) NH (1) |
| 2974 | pH Wide Range | · · | 50 Strips | on. | |
| 2974 POLYQUAT Polyq | pH Wide Range | 4-10 рН/1 рН | 50 Strips | ion. | |
| 2974 POLYQUAT Polyqi 7056-01 QUATERNARY AN | pH Wide Range uats are used as biocides to clean col Dropper Bottle MMONIUM COMPOUNDS These biocide | 4-10 pH/1 pH ntact surfaces. A polyelectrolytic titration is used to | 50 Strips determine the concentrati 100+ [5] d to clean food processing | B implements an | NH (1) R1 (1) Indicontact surfaces. |
| 2974 POLYQUAT Polyq 7056-01 QUATERNARY AM Test papers or a | pH Wide Range uats are used as biocides to clean col Dropper Bottle MMONIUM COMPOUNDS These biocide | 4-10 pH/1 pH ntact surfaces. A polyelectrolytic titration is used to 1 drop = 1 ppm Polyquat as are also referred to as Quats or QAC. They are use | 50 Strips determine the concentrati 100+ [5] d to clean food processing | B implements an | NH (1) R1 (1) Indicontact surfaces. |
| 7056-01 Quaternary am | pH Wide Range uats are used as biocides to clean cou Dropper Bottle MMONIUM COMPOUNDS These biocide tetraphenylboron titration may be us Polyelectrolytic | 4-10 pH/1 pH ntact surfaces. A polyelectrolytic titration is used to 1 drop = 1 ppm Polyquat as are also referred to as Quats or QAC. They are used for high concentrations. A variable equivalence tit 1 drop = 2, 5, or 10 ppm | 50 Strips determine the concentrati 100+ [5] d to clean food processing tration may be used for all | B implements an concentrations | NH (1) R1 (1) Id contact surfaces. |
| 2974 POLYQUAT Polyqi 7056-01 QUATERNARY AM Test papers or a 7057-01 3043-DR-01 | pH Wide Range uats are used as biocides to clean col Dropper Bottle MONIUM COMPOUNDS These biocide tetraphenylboron titration may be us Polyelectrolytic Dropper Bottle BPB Direct | 4-10 pH/1 pH ntact surfaces. A polyelectrolytic titration is used to 1 drop = 1 ppm Polyquat as are also referred to as Quats or QAC. They are used for high concentrations. A variable equivalence tit 1 drop = 2, 5, or 10 ppm Alkyl dimethyl benzyl ammonium chloride 0-500 ppm/10 ppm | 50 Strips determine the concentration 100+ (5) d to clean food processing tration may be used for all 100+ (5) | B implements an concentrations | NH (1) R1 (1) ad contact surfaces. R1 (2) |
| 2974 POLYQUAT Polyqi 7056-01 QUATERNARY AM Test papers or a 7057-01 3043-DR-01 | pH Wide Range uats are used as biocides to clean col Dropper Bottle MMONIUM COMPOUNDS These biocide tetraphenylboron titration may be us Polyelectrolytic Dropper Bottle BPB Direct Reading Titrator BPB Direct | 4-10 pH/1 pH ntact surfaces. A polyelectrolytic titration is used to 1 drop = 1 ppm Polyquat as are also referred to as Quats or QAC. They are used for high concentrations. A variable equivalence tit 1 drop = 2, 5, or 10 ppm Alkyl dimethyl benzyl ammonium chloride 0-500 ppm/10 ppm Alkyl dimethyl benzyl ammonium chloride 0-1,000 ppm/20 ppm | 50 Strips determine the concentration 100+ (5) d to clean food processing tration may be used for all 100+ (5) 50 at 500 ppm (2) | B implements an concentrations | NH (1) R1 (1) Ind contact surfaces. R1 (2) NH (1) |
| 2974 POLYQUAT Polyqi 7056-01 QUATERNARY AM Test papers or a 7057-01 | pH Wide Range uats are used as biocides to clean col Dropper Bottle MMONIUM COMPOUNDS These biocide tetraphenylboron titration may be us Polyelectrolytic Dropper Bottle BPB Direct Reading Titrator BPB Direct Reading Titrator | 4-10 pH/1 pH ntact surfaces. A polyelectrolytic titration is used to 1 drop = 1 ppm Polyquat as are also referred to as Quats or QAC. They are used for high concentrations. A variable equivalence tit 1 drop = 2, 5, or 10 ppm Alkyl dimethyl benzyl ammonium chloride 0-500 ppm/10 ppm Alkyl dimethyl benzyl ammonium chloride 0-1,000 ppm/20 ppm 0-5,000 ppm/100 ppm with dilution | 50 Strips determine the concentration 100+ [5] Indicate to clean food processing tration may be used for all 100+ [5] 50 at 500 ppm [2] | B implements an concentrations | NH (1) R1 (1) Ind contact surfaces. R1 (2) NH (1) NH (1) |

^{*(}NPDWR) EPA Accepted. Prop 65: C: 📤 WARNING Cancer - www.P65Warnings.ca.gov/product; B: 📤 WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov/product

LaMotte Microbiological Testing

Coliform Screening Kit

Order Code 4-3616

The 4-3616 is an easy-to-use, disposable 5-tube method to indicate the presence of Total Coliform Bacteria in a water supply. The water sample is placed



TEST

in test vials containing the special coliform indicating tablets and stored at room temperature for a predetermined time period. After the required storage period, the vials are examined to determine the presence of coliform bacteria.



Total Coliform & *E. coli* Bacteria Test Kit

Order Code 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. coli Bacteria
- NO incubation equipment required
- Results in 44-48 hours at room temperature [70° - 85°F] or 24-hours at 110°F
- 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)

| Order Code | Test System | Range/ Sensitivity | # of Tests (# of Reagents) | Shipping Code (Wgt./lbs) |
|---------------|-------------------------------|-----------------------|-------------------------------|--------------------------------|
| 4-3616 | Tableted nutrient based | Presence/ Absence | 1(1) | NH (1) |
| 4-3616-UV | Tableted nutrient based | Presence/ Absence | 1 [1] | NH (1) |







LaMotte offers a number of instruments to test process water, wastewater and sanitizers. A brief summary of these is below. For more information on these and other instruments, please visit **www.lamotte.com**.

Model 1500 Series

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

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.

Meters are available for ammonia nitrogen, chlorine, chlorine dioxide, copper, fluoride, iron, molybdenum, ozone, phosphate and sulfate.

| Specifications | |
|----------------------|--|
| Instrument Type: | Single wavelength, direct-reading colorimeter |
| Readout: | 3½ digit LCD |
| Wavelength Accuracy: | ±2%FS |
| Detector: | Silicon Photodiode with integrated interface filter |
| Sample Chamber: | Accepts 25mm diameter flat-bottom, screwcap tubes (6 included) |
| Light Source: | LED |
| Interface: | USB port |
| Power: | Lithium ion rechargeable battery |
| Size (LxWxH): | 17 x 16 x 9 cm, 6.9 x 3.25 x 2.5 inches |
| | |



HINGED LIGHT COVER

Flip-top lid over sample chamber prevents any stray light, especially in the field, and avoids misplacing separate light caps.

EUROPEAN CE MARK

The DC1500 has been independently tested and has earned the European CE Mark of compliance for electromagnetic compatibility and safety.

IP67 WATERPROOF DESIGN

Designed with excessive exposure to moisture in mind, the DC1500 colorimeter delivers trouble-free performance.

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).

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.

FIELD & LAB USE

USB cable and wall adapter included; car charger optional.

RECHARGEABLE BATTERY

Lithium ion rechargeable battery. No need to buy batteries again.

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.

USB INTERFACE

An USB port is provided to interface with a datalogger or computer. Optional cable available.

DISPLAY

Large graphical liquid crystal display

Options:

- USB Cable (Order Code 1720-01)
- Wall Adapter (Order Code 1721)
- Replacement Tubes (6) (Order Code 0290-6)













Model 1500 · Single Test Colorimeter Labs

| Test Factor | Order Code | Model | Range (ppm) | Detection Limit | Test Method [# of reagents] | Prop 65 | # of Tests | Ship Codes |
|-------------------------|------------|--------------|-------------|--------------------|--------------------------------|---------|---------------|---------------|
| Ammonia Nitrogen | 3241 | DC1500-NH | 0-5.0 | 0.05 | Nessler (2) | R | 60 | R1 |
| Chlorine (Free & Total) | 3240 | DC1500-CL | 0-4.0 | 0.05 | DPD Tablets (2) | | 100 | NH |
| Chlorine (Free & Total) | 3240-LI | DC1500-CL-LI | 0-4.0 | 0.05 | DPD Liquid (3) | | 140 | R1 |
| Chlorine Dioxide | 3244 | DC1500-CL0 | 0-7.0 | 0.05 | DPD with Glycine Solution (2) | | 100 | NH |
| Copper | 3245 | DC1500-CO | 0-6.0 | 0.03 | Diethyldithiocarbamate (1) | | 100 | NH |
| Fluoride | 3243 | DC1500-FL | 0-2.0 | 0.028 | Alizarin-Zirconyl (2) | | 100 | LQ |
| Iron | 3248 | DC1500-FE | 0-4.0 | 0.25 | 1,10 Phenanthroline (2) | | 100 | R1 |
| Molybdenum | 3246 | DC1500-M0 | 0-30 | 0.5 | Thioglycolate (3) | | 50 | R3 |
| Ozone | 3249 | DC1500-0Z | 0-0.4 | 0.04 | Indigo Blue (3) | | 100 | NH |
| Phosphate | 3242 | DC1500-PLR | 0-3.0 | 0.07 | Ascorbic Acid (2) | | 100 | R2 |
| Sulfate | 3247 | DC1500-SU | 0-100 | 1.0 | Barium Chloride (1) | | 100 | R1 |
| | | | | | | | | |

Prop 65: R: MARNING Reproductive Harm - www.P65Warnings.ca.gov/product

Tablet Chlorine DPD Reagents

| Tablet (50 Pack) | Order Code | Ship Code |
|----------------------------|------------|-----------|
| Chlorine DPD #1 Instrument | 6903A-H | NH |
| Chlorine DPD #3 Instrument | 6197A-H | NH |
| Chlorine DPD #4 Instrument | 6906A-H | NH |
| Tablet (100 Pack) | Order Code | Ship Code |
| Chlorine DPD #1 Instrument | 6903A-J | NH |
| Chlorine DPD #3 Instrument | 6197A-J | NH |
| Chlorine DPD #4 Instrument | 6906A-J | NH |
| Tablet (1000 Pack) | Order Code | Ship Code |
| Chlorine DPD #1 Instrument | 6903A-M | NH |
| Chlorine DPD #3 Instrument | 6197A-M | NH |
| Chlorine DPD #4 Instrument | 6906A-M | NH |
| | | |

Liquid Chlorine DPD Reagents

| Order Code | Ship Code |
|----------------------|----------------------------------|
| P-6740-G | NH |
| P-6741-G | R1 |
| P-6743-G | NH |
| | |
| Order Code | Ship Code |
| | |
| P-6740-H | NH |
| P-6740-H P-6741-H | NH R2 |
| | P-6740-G P-6741-G P-6743-G |





SMART®3 Colorimeter

Order Code 1910

The user-friendly SMART3 Colorimeter is the 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.

The SMART3 Colorimeter is supplied with 6 sample tubes, AC adapter, and instruction manual including test procedures.

Advanced Features: (Go to www.lamotte.com for Specifications)

- IP67 Waterproof
- Simple, menu-driven operation
- Automatic wavelength selection
- Seven user selected languages











Accessories/Replacement Items:

- Smartcheck Performance Check Standards (Order Code 4148)
- Replacement Sample Chamber Cup (Order Code 3-0038)
- COD/UDV adapter (Order Code 1724)
- 6 Sample Tubes (Order Code 0290-6)

- USB Cable (Order Code 1720)
- USB Power Plug (Order Code 1721)
- Car Charger (Order Code 5-0132)
- Small Case (Order Code 1910-GCS150)
- Large Case (Order Code 1910-GCS440)

SMART3 Reagent Systems

New tests are being developed for the SMART3. Please contact our Technical Service Department for information regarding additions of new tests.

| Test Factor | Test Method (# of reagents) | Range ppm | # of Tests | Order Code | Ship Code | Prop 65† |
|--|-----------------------------|---------------------|------------|------------|--------------|-------------|
| Alkalinity | Tablet, Colorimetric (1) | 10-250 | 50 | 3670-SC | NH | |
| Aluminum | Eriochrome Cyanine R (4) | 0.01-0.30 | 50 | 3641-01-SC | NH | R |
| Ammonia Nitrogen LR (Fresh & Salt Water) | Salicylate (3) | 0.05-1.00/0.10-1.00 | 25 | 3659-02-SC | R2 | R |
| Ammonia Nitrogen HR | Nesslerization (2) | 0.05-4.00 | 50 | 3642-SC | R1 | R |
| Barium | Barium Chloride (1) | 5-200 | 50 | 3638-SC | NH | R |
| Biquinide | Colorimetric (1) | 2-70 | 50 | 4044 | NH | |
| Boron | Azomethine-H [2] | 0.05-0.80 | 50 | 4868-01 | NH | |
| Bromine | Liquid, DPD (3) | 0.00 - 3.00 | 144 | 4859 | R1 | |
| Bromine | DPD Tablets (3) | 0.10-9.00 | 100 | 3643-SC | NH | |
| Cadmium | PAN (4) | 0.02-1.00 | 50 | 4017-01 | R1 | R |
| Carbohydrazide | Iron Reduction (3) | 0.04-0.90 | 100 | 4857 | R1 | |
| Chloride | Tablet, Argentometric [1] | 0.4-30.0 | 50 | 3693-SC | NH | |
| Chlorine (Free & Total) | DPD Tablets (3) | 0.03-4.00 | 100 | 3643-SC | NH | |
| Chlorine | Liquid, DPD (3) | 0.03-4.00 | 144 | 4859 | R1 | |
| Chlorine Dioxide | DPD tablet/Glycine [2] | 0.06-8.00 | 100 | 3644-SC | NH | |
| Chromium (Hexavalent) | Diphenylcarbohydrazide (1) | 0.01-1.00 | 100 | 3645-SC | HA | |
| Chromium (Total, Hex & Trivalent) | Diphenylcarbohydrazide (5) | 0.01-1.00 | 100 | 3698-SC | HF | |
| Cobalt | PAN (3) | 0.04-2.00 | 50 | 4851-01 | HF | R |
| COD LR with Mercury* | Digestion (1) | 5-150 mg/L | 25 | 0075-SC | R1 | |
| COD LR without Mercury* | Digestion (1) | 5-150 mg/L | 25 | 0072-SC | R1 | |
| COD SR with Mercury* | Digestion (1) | 50-1,500 mg/L | 25 | 0076-SC | R1 | |
| COD SR without Mercury* | Digestion (1) | 50-1,500 mg/L | 25 | 0073-SC | R1 | |
| COD HR with Mercury* | Digestion (1) | 500-15,000 mg/L | 25 | 0077-SC | R1 | |
| COD HR without Mercury* | Digestion (1) | 500-15,000 mg/L | 25 | 0074-SC | R1 | R |

| Test Factor | Test Method (# of reagents) | Range ppm | # of Tests | Order Code | Ship Code | Prop 65† |
|------------------------------|------------------------------------|----------------|------------|------------|--------------|--------------|
| Color | Platinum Cobalt (0) | 20-1,000 Cu | ∞ | NA | NH | |
| Copper BCA - LR | Bicinchoninic Acid (1) | 0.04-3.50 | 50 | 3640-SC | NH | |
| Copper | Cuprizone (2) | 0.03-2.00 | 50 | 4023 | R1 | |
| Copper DDC | Diethyldithiocarbamate [1] | 0.10-6.00 | 100 | 3646-SC | NH | В |
| Cyanide | Pyridine-Barbituric Acid (5) | 0.03-0.35 | 50 | 3660-01-SC | R1 | |
| Cyanuric Acid | Melamine (1) | 10-200 | 40 | 3661-01-SC | NH | |
| Cyanuric Acid | Tablet, Melamine (1) | 10-110 | 50 | 3673-SC | NH | |
| DEHA | Iron Reduction (3) | 0.01-0.70 | 100 | 4857 | R1 | |
| Dissolved Oxygen (DO) | Winkler Colorimetric (3) | 0.6-11.0 | 200 | 3688-SC | R1 | |
| Erythorbic Acid | Iron Reduction (3) | 0.02-3.00 | 100 | 4857 | R1 | |
| Fluoride | SPADNS [2] | 0.1-2.0 | 50 | 3647-02-SC | R1 | |
| Hardness, Total | Tablet, Colorimetric (1) | 10-400 | 50 | 3671-SC | NH | |
| Hydrazine | p-dimethylaminobenzalde-hyde (2) | 0.01-0.75 | 50 | 3656-01-SC | NH | |
| Hydrogen Peroxide LR | DPD (2) | 0.02-1.50 | 100 | 3662-SC | NH | |
| Hydrogen Peroxide HR | DPD (2) | 1-60 | 100 | 4045-01 | NH | |
| Hydrogen Peroxide Shock | DPD (2) | 10-225 | 100 | 4045-01 | R2 | |
| Hydroquinone | Iron Reduction (3) | 0.01-2.00 | 100 | 4857 | R1 | |
| Iodine | DPD Tablets (2) | 0.2-14.0 | 100 | 3643-SC | NH | |
| Iron | Bipyridyl [2] | 0.10-6.00 | 50 | 3648-SC | R1 | |
| Iron, Total, Ferrous, Ferric | 1,10 Phenanthroline (2) | 0.1-5.0 | 50 | 3668-SC | R1 | |
| Lead | PAR (5) | 0.1-5.0 | 50 | 4031-01 | R1 | С |
| Manganese LR | PAN [3] | 0.01-0.70 | 50 | 3658-01-SC | HF | R |
| Manganese HR | Periodate (2) | 0.3-15.0 | 50 | 3669-SC | R1 | |
| Methylethylketoxime | Iron Reduction (3) | 0.01-3.00 | 100 | 4857 | R1 | |
| Molybdenum HR | Thioglycolate [3] | 0.6-50.0 | 50 | 3699-03-SC | R1 | |
| Nickel | Dimethylglyoxime [6] | 0.15-8.00 | 50 | 3663-01-SC | HF | R |
| Nitrate Nitrogen LR | Cadmium Reduction [2] | 0.10-3.00 | 20 | 3649-01-SC | R1 | В |
| Nitrate | Tablet, Zinc Reduction [1] | 5-60 | 50 | 3689-SC | NH | |
| Nitrite Nitrogen LR | Diazotization [2] | 0.02-0.80 | 20 | 3650-SC | NH | |
| Nitrogen, Total* | Chromotropic Acid/ Digestion [6] | 3-25 mg/L | 25 | 4026-02 | R1 | |
| Oxygen Scavengers | Iron Reduction | various | 100 | 4857 | R1 | |
| Ozone | DPD (4) | 0.03-3.00 | 100 | 4881-01 | NH | |
| Ozone LR | Indigo Trisulfonate (3) | 0.01-0.40 | 100 | 3651-SC | NH | |
| Ozone HR | Indigo Trisulfonate (3) | 0.05-2.50 | 20 | 3651-SC | NH | |
| pH CPR | Chlorophenyl Red [1] | pH 5.0-6.8 | 100 | 3700-01-SC | NH | |
| pH PR | Liquid, Phenol Red (1) | pH 6.6-8.4 | 100 | 3700-01-SC | NH | |
| pH TB | Thymol Blue [1] | pH 8.0-9.5 | 100 | 3700-01-SC | NH | |
| pH | Tablet, Phenol Red (1) | pH 6.6-8.4 | 50 | 3672-SC | NH | |
| Phenol | Aminoantipyrine [3] | 0.05-6.00 | 50 | 3652-01-SC | NH | |
| Phosphate LR | Ascorbic Acid Reduction (2) | 0.05-3.00 | 50 | 3653-SC | R2 | С |
| Phosphate HR | Vanodomolybdovanadate Acid (1) | 0.5-70.0 | 50 | 3655-SC | R1 | |
| Phosphorus, ppb | Ascorbic Acid/Digestion (5) | 50-3000 | 50 | 3653-SC | R2 | С |
| Phosphorus, Total - LR* | Ascorbic Acid/Digestion (5) | 0.50-3.50 mg/L | 25 | 4024-01 | R1 | |
| Phosphorus, Total - HR* | Molybdovanadate/ Digestion [5] | 5-100mg/L | 25 | 4025-01 | R1 | |
| Potassium | Tetraphenylboron (2) | 0.8-10.0 | 100 | 3639-SC | R1 | |
| Silica LR | Heteropoly Blue (4) | 0.05-4.00 | 100 | 3664-SC | R1 | |
| Silica HR | Silicomolybdate [3] | 1-75 | 50 | 3687-SC | R1 | |
| Sulfate HR | Barium Chloride [1] | 3-100 | 100 | 3665-SC | R1 | |
| Sulfide LR | Methylene Blue (3) | 0.06-1.50 | 50 | 3654-02-SC | R1 | |
| Surfactants | Bromthymol Blue (3) | 0.5-8.0 | 100 | 4876-01 | HF | В |
| Tannin | Tungsto-Molybdophosphoric Acid (2) | 0.1-10.0 | 50 | 3666-01-SC | R1 | - |
| Turbidity | Absorptimetric [0] | 3-400 FTU | ∞ | NA NA | NH | |
| Urea | Urease/Salicylate [4] | 0.4-6.0 | 50 | 3674-SC | LQ | |
| Zinc LR | Zincon (6) | 0.05-3.00 | 50 | 3667-01-SC | HF | В |
| | 2.110011 [0] | 5.00 0.00 | | 300, 01 00 | | |

Ship Codes: NH - Non Hazardous, No Fees; HF - Hazardous Materials, Air & Ground Fees; R1 - Small Quantity Hazardous Materials, No Fees; R2, R3, & LQ - Hazardous Materials, Air Fees Only

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

Prop 65: C: WARNING Cancer - www.P65Warnings.ca.gov/product; R: WARNING Reproductive Harm - www.P65Warnings.ca.gov/product; B: WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov/product















2020t/i Ratio Turbidity Meters

Order Code (2020t) 1974-T · Ship Code NH (6) Order Code (2020i) 1974-I · Ship Code NH (6)

New Ratiometric design in one of the most innovative, waterproof, handheld meters availble 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 reange of interest with better, more reliable results. Ideally suited for low-level drinking water applications, mid-range industrial applications, and high-range environmental applications.

Advanced Features:

- Lithium Ion rechargeable battery
- USB port

- 7 languages
- Backlit display
- EPA and ISO versions

| Specifications | | | |
|--------------------------------|---|--|---|
| Mode | Ratiometric | Nephelometric | Attenuation |
| Unit of Measure 2020t : | NTRU, NTU, ASBC, EBC | NTU, ASBC, EBC | AU, NTU, ASBC, EBC |
| Unit of Measure 2020i : | 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 |
| Detection Limit: | 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 °C 2020i: IR LED 860 nm ±10 nm, | ±50 °C spectral bandwidth with 50 nm | |
| Detector: | 2020t: Photodiode, centered at 2020t/i: Photodiode, centered a | | 100-600 nm |



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.

All kits ship as R1 (Small Quantity Hazardous Material - No Fee).

| 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 |
| 4026-02 | Total Nitrogen | 0-25 mg/L | 25 |

COD Multi-Range Reagent Systems

LaMotte-manufactured Chemical Oxygen Demand reagent systems used with our COD PLUS Colorimeter, SMART 2 Colorimeter or SMART Spectro 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 [Small Quantity. Hazardous Material - No Fee].

Mercury-Free Systems

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

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 |





COD Heater Block

Order Code 5-0102 (120V), 12-Tube Capacity Order Code 5-0102-EX2 (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.

| 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 80 mm (LxWxH) |
| CE Mark: | Yes |
| Oven Temp Cutoff: | 212°C |

"Min-Max" Memory Thermometer

Order Code 5-0095

- Range: 14 to 392°F or -10 to 200°C
- °F or °C selectable scale

| Specifications | | |
|----------------|--|--|
| Code: | 5-0095 | |
| Range: | -10 to 200°F, 14 to 392°C | |
| Resolution: | 0.1°F to 199.9°, 1°C above 200° | |
| Accuracy: | ±1.8°F / ±1.0°C | |
| Calibration: | Factory calibrated; fine adjustment through keypad | |

| • | Recalls minir | num and | maximum | temperature |
|---|---------------|---------|---------|-------------|
|---|---------------|---------|---------|-------------|

| Operating Temp.: | 32 to 122°F; 0 to 50°C |
|-----------------------|--|
| Special Functions: | On/Off or Auto-Off after 8.5 min.; HOLD; °F or °C scale selectable; factory calibration maintained when batteries are replaced |
| Power & Battery Life: | LR-44 button cell; 2 yr life |
| Dimensions: | 4.3 x 0.14 x 1.8 inches (109 x 4 x 46 mm) |
| Weight: | 3 oz |





TDS/Salt/Conductivity/Temp Tracer

Order Code 1749

- Easy to use
- 2% accuracy for EC, TDS, and Salt modules
- Automatic temperature compensation
- Self calibration

| Specifications | |
|----------------|---|
| 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) |

- Memory can store up to 25 readings; auto-power off after 10 minutes of no button presses
- Automatic shut-off and low battery indicator; uses four 3V CR-2032 button batteries

Options:

- EC/TDS/SAL Replacement Electrode* (Order Code 1765)
- Sample Cup w/cap (Order Code 1745-1)
- Conductivity Standard, 84 μS, 30 mL (Order Code 6312-G)
- Conductivity Standard, 1413 μS, 30 mL (Order Code 6354)

EPA Approved (NPDES Monitoring)

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

The world's first pocket-sized ISE meter for measuring Total Chlorine. Ideal for use in colored or turbid solutions. Use it to test pH and ORP with interchangeable flat surface sensors (optional).

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 mode also displays 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

pH TRACER

Order Code 1741

- Provided with 4, 7, and 10 pH buffer tablets
- Rugged flat surface electrode is ideal for food analysis and will alert user when it is 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

| Specifications | | |
|----------------|----------------------------|--|
| Range: | 0.00 to 14.00 pH | |
| Temp: | 23° to 194°F (-5° to 90°C) | |
| Resolution: | 0.01 pH | |
| Accuracy: | ±0.01 pH | |

ORP TRACER

Order Code 1742

- High resolution to 1 mV
- Automatic self calibration

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



Options

Additional Probes

- pH Sensor · 0-14.00/±0.01 pH · Order Code 1733
- ORP Sensor · -999 to 999mV/±4mV · Order Code 1734
- Cl2 Sensor · 0-10.00/±10% of reading · Order Code 1732



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. Available in packages of 100.



LaMotte Buffer Solutions



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.

| pH Value | Code (50 pk) | |
|------------------|---------------------------|--|
| 4.00 3983-A-H | | |
| 7.00 | 3984-A-H | |
| 10.00 | 3985-A-H | |
| | | |
| | | |
| pH Value | Code (100 pk) | |
| pH Value 4.00 | Code (100 pk) 3983-A-J | |
| | | |
| 4.00 | 3983-A-J | |



Standardized pH Buffer Solutions

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

| pH Value | Size | Code |
|----------|--------|--------|
| 4.01 | 120 mL | 2866-J |
| 4.01 | 500 mL | 2866-L |
| 6.86 | 500 mL | 2808-L |
| 7.00 | 120 mL | 2881-J |
| 7.00 | 500 mL | 2881-L |
| 9.18 | 500 mL | 2809-L |
| 10.00 | 120 mL | 2896-J |
| 10.00 | 500 mL | 2896-L |



Color-Coded pH Buffer Solutions

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

| pH Value | Color | Size | Code |
|----------|--------|--------|--------|
| 4.01 | Red | 500 mL | 3771-L |
| 7.00 | Yellow | 500 mL | 3772-L |
| 10.00 | Blue | 500 mL | 3773-L |



