

Taylor's Boiler & Cooling Water Test Kits

INTRODUCTION

To prevent corrosion and scale in boiler and cooling water systems, it is essential to **analyze both the natural impurities of the source water and the treated water's characteristics.** The analytes most commonly tested are alkalinity, chloride, hardness, nitrite, pH, silica, and sulfite. Additives such as EDTA and other chelants, molybdenum, phosphates, phosphonates, and polyacrylic-acid-based polymers are also routinely monitored. Tests for these parameters constitute Taylor's combination kits for water treatment professionals.

Kits **come complete** with all necessary reagents and equipment.

COMBINATION KITS

The K-1645 variations are our **most popular** combination kits:

K-1542

M alkalinity, total hardness*

K-1645

P/M & P/T alkalinity, chloride, orthophosphate, pH, sulfite, total hardness*

K-1645-1

P/M & P/T alkalinity, orthophosphate, sulfite, total hardness*

K-1645-2

P/M & P/T alkalinity, chloride, total hardness*

K-1645-3

P/M & P/T alkalinity, sulfite, total hardness*

K-1645-4

P/M & P/T alkalinity, chloride, orthophosphate, total hardness*

K-1645-5

P/M & P/T alkalinity, chloride, orthophosphate, sulfite

K-1645-6

P/M & P/T alkalinity, chloride, sulfite, total hardness*

For the **small boiler** operator:

K-1640

P/T alkalinity, chloride, sulfite, total hardness*



Taylor's orthophosphate test using the 2-Standard™ comparator (shown above in K-1645) is trusted by water treatment professionals industrywide.

K-1650

P/T alkalinity, chloride, orthophosphate, sulfite

K-1819

P alkalinity, chloride, sulfite

Specialty kit for closed systems:

K-1646

Molybdenum, nitrite, pH

Designed for high-pressure steam boilers and open cooling systems:

K-1680

P/T alkalinity, chloride, nitrite, phosphonate, sulfite, total hardness*

K-1690

P/T alkalinity, chloride, molybdenum, nitrite, phosphonate, silica, sulfite, total hardness*

K-9105

P/M alkalinity, chloride, copper, iron, molybdenum, nitrite, orthophosphate, phosphonate, silica, sulfite, total and trace hardness*

For boilers and cooling systems using polymers for scale prevention and sludge control:

K-1190

0–10 ppm polymer as PAA (polyacrylic acid)

K-1692

Total alkalinity, calcium hardness, chloride, nitrite, phosphonate, polymer as PAA (polyacrylic acid)

K-1693

P/T alkalinity, chloride, sulfite, total and trace hardness*, polymer as PAA (polyacrylic acid)

USER BENEFITS

- Midget™ comparators (using eight liquid-color standards) are the **economical alternative when color and turbidity are not present.**
- 2-Standard™ comparators (using two liquid-color standards) **monitor a parameter between an established minimum and maximum.**
- **Color Cards are laminated** to protect the printed-color standards from water and chemicals.
- Titrations do not require the ability to match colors, only the ability to see the **permanent color change** at the endpoint of the reaction.
- **Waterproof instructions** are printed on plastic-impregnated paper that resists fading and tearing.

* includes inhibitors to prevent metal interference

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USER BENEFITS (cont'd)

- **Color coding** of reagent caps to instructions helps prevent mishaps.
- **Picture guides** to color transitions in the test reassure new users.
- Custom-molded, durable plastic cases provide **safe storage** for all tests.
- **Proven chemistries** are based on *Standard Methods for the Examination of Water and Wastewater*, APHA, Washington, DC, and/or *American Society for Testing and Materials*, ASTM, Philadelphia, PA. Some methods use proprietary chemistry developed by Taylor Technologies.

ALSO AVAILABLE




- Myron L Company portable instruments that may be purchased alone or paired with our reagents.
- **Microbial tests** from Easicult® and Sani-Check®.
- Syringe filtration system (#9803) which employs specially-sized filter discs to remove colloidal color or turbidity.
- SampleSizer® for 10/25 mL test volumes (#6190) and SpeedStir® magnetic stirrer (#9265) save time for frequent testers.
- **Demineralizer bottle** (8 oz.) containing an ion-exchange resin that changes color when it needs replenishing (R-0804-DD).

- A wide array of single- and multi-parameter kits featuring color-matching and/or drop-count tests.
- Taylor's TTI® Colorimeter (M-3000); test 30+ parameters commonly encountered in commercial and industrial settings and transfer results to a PC database.
- Testing supplies and kit replacement parts (e.g., burets, flasks, test tubes, and test cells).
- **Video demonstrations** for new users posted on our website.
- Toll-free technical assistance at **800-TEST KIT**.




REPRESENTATIVE TEST PROCEDURE


Reproduced from K-1645 instruction:

DROP TEST
ALKALINITY-PM/PT
Instr. #5067G

<p>COMPONENTS:</p> <table border="0" style="width: 100%; font-size: small;"> <tr> <td style="width: 15%;">1 x 5067G</td> <td>Instruction</td> </tr> <tr> <td>1 x 9198G</td> <td>Sample Tube, Graduated, 25 mL, plastic w/cap and green dot</td> </tr> <tr> <td>1 x R-0637-C</td> <td>Methyl Orange Indicator, 2 oz, DB</td> </tr> <tr> <td>1 x R-0638G-A</td> <td>Phenolphthalein Indicator (green cap), .75 oz, DB</td> </tr> <tr> <td>1 x R-0645-C</td> <td>Total Alkalinity Indicator, 2 oz, DB</td> </tr> <tr> <td>1 x R-0687G-C</td> <td>Sulfuric Acid .12N (green cap), 2 oz, DB</td> </tr> </table> <p>TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE 800-TEST KIT (800-837-8548).</p> <p>PROCEDURE: CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS. KEEP REAGENTS AWAY FROM CHILDREN.</p> <p>Alkalinity-P/M (Drop Test)</p> <ol style="list-style-type: none"> 1. Rinse and fill 25 mL sample tube (#9198G) to 25 mL mark with water to be tested. 2. Add 3 drops R-0638G Phenolphthalein Indicator. Swirl to mix. Sample will turn pink (Fig. 1) if P alkalinity is present—proceed to Step 3. If no pink color, go to Step 4. 3. If pink, add R-0687G Sulfuric Acid .12N dropwise, swirling and counting after each drop, until color changes from pink to colorless. Record drops as P reading. Always hold bottle in vertical position. 4. Add 5 drops R-0637 Methyl Orange Indicator. Swirl to mix. Sample should turn yellow (Fig. 2). 5. Continue adding R-0687G Sulfuric Acid .12N dropwise, swirling and counting after each drop, until color just changes from yellow to orange (salmon pink) (Fig. 3). Record total drops (Steps 3 and 5) as M reading. Always hold bottle in vertical position. 	1 x 5067G	Instruction	1 x 9198G	Sample Tube, Graduated, 25 mL, plastic w/cap and green dot	1 x R-0637-C	Methyl Orange Indicator, 2 oz, DB	1 x R-0638G-A	Phenolphthalein Indicator (green cap), .75 oz, DB	1 x R-0645-C	Total Alkalinity Indicator, 2 oz, DB	1 x R-0687G-C	Sulfuric Acid .12N (green cap), 2 oz, DB	 <p style="text-align: center; font-size: x-small;">Fig. 1</p>  <p style="text-align: center; font-size: x-small;">Fig. 2</p>  <p style="text-align: center; font-size: x-small;">Fig. 3</p> <p style="text-align: center; font-size: x-small;">(OVER)</p>
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1 x 9198G	Sample Tube, Graduated, 25 mL, plastic w/cap and green dot												
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DROP TEST
ALKALINITY-PM/PT
Instr. #5067G

<p>Alkalinity-P/T (Drop Test)</p> <ol style="list-style-type: none"> 1. Rinse and fill 25 mL sample tube (#9198G) to 25 mL mark with water to be tested. 2. Add 3 drops R-0638G Phenolphthalein Indicator. Swirl to mix. Sample will turn pink (Fig. 4) if P alkalinity is present—proceed to Step 3. If no pink color, go to Step 4. 3. If pink, add R-0687G Sulfuric Acid .12N dropwise, swirling and counting after each drop, until color just changes from pink to colorless. Record drops as P reading. Always hold bottle in vertical position. 4. Add 5 drops R-0645 Total Alkalinity Indicator. Swirl to mix. Sample should turn green (Fig. 5). 5. Continue adding R-0687G Sulfuric Acid .12N dropwise, swirling and counting after each drop, until color changes from green to red (Fig. 6). Record total drops (Steps 3 and 5) as T reading. Always hold bottle in vertical position. 6. Multiply P reading by 10. Record as parts per million (ppm) P alkalinity as calcium carbonate. Multiply T reading by 10. Record as ppm T alkalinity as calcium carbonate. 	 <p style="text-align: center; font-size: x-small;">Fig. 4</p>  <p style="text-align: center; font-size: x-small;">Fig. 5</p>  <p style="text-align: center; font-size: x-small;">Fig. 6</p>
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