

# Taylor's Metal Test Kits for Pools & Spas

## INTRODUCTION

**M**etal in pool and spa water can come from three sources: from the **fill water** itself, as metals occur naturally in ground and surface water; from **treatment products** containing metal, such as copper algaecides; or, most commonly, from **corrosion** of the metal piping and equipment or metal objects dropped in the water. Unsightly colored water and stained surfaces are usually the result of excess metal(s) in the water.

Taylor offers several colorimetric kits to measure the concentration of the metals most commonly found in pool and spa water: **copper** and **iron**.

To prevent water conditions that lead to corrosion, also purchase a test kit capable of monitoring the water chemistry parameters involved in **water balance** (pH, total alkalinity, and calcium hardness).

## COPPER KITS

### K-1730

Color Card comparator for copper; 0.05–1.0 ppm **free Cu**

### K-1738

Midget comparator for copper; 0.2–3.0 ppm Cu

## IRON KITS

### K-1153

Slide comparator for iron; 0–2.0 ppm Fe

### K-1716

Midget comparator for iron; 0–2.0 ppm Fe

## COPPER & IRON KIT

### K-1264

Midget comparator for copper; 0.2–3.0 ppm Cu

Midget comparator for iron; 0–2.0 ppm Fe



Unless the sample appears colored or turbid, a Midget comparator may be used to determine the concentration of metal in the water. K-1264 is shown.

## USER BENEFITS

- Slide™ and Long Viewpath™ comparators (using nine liquid-color standards molded in impact-resistant plastic) are **designed to compensate for color and turbidity**. Midget™ comparators (using eight liquid-color standards) are the **economical alternative when color and turbidity are not present**.
- **Color Cards are laminated** to protect the printed-color standards from water and chemicals.
- These test kits are practical for both **on- and off-site** testing.
- **Waterproof instructions** are printed on plastic-impregnated paper that resists fading and tearing.
- 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

- A wide array of single- and multiparameter kits featuring color-matching and/or drop-count tests.
- Taylor's **Tti® Colorimeter** (M-2000); test over a dozen parameters commonly encountered in pool/spa settings and transfer results to a PC database.
- Myron L Company portable instruments and calibration solutions (sold separately).
- Testing supplies and kit replacement parts (e.g., burets, flasks, test tubes, and test cells).
- Computerized water analysis at [www.taylortechnologies.com](http://www.taylortechnologies.com).
- Toll-free technical assistance at **800-TEST KIT**.

## REPRESENTATIVE TEST PROCEDURE

Reproduced from K-1264 instruction:

| COLOR COMPARISON TEST<br>COPPER (0.2-3.0 ppm) & IRON (0-2.0 ppm)                                      |   | Instr. #5120  |
|---|---|---|
| <b>COMPONENTS:</b>  |   |   |
| <b>Copper</b>   |   |   |
| 1 x 3243  | Cap, Test Cell (11.5 mL), plastic                         | 4. Wipe dry and place in comparator (#9049) WITH FROSTED SIDE FACING OPERATOR. WAIT 5 MINUTES.    |
| 1 x 4024  | Test Cell, Calibrated (11.5 mL), plastic                  | 5. Match color in test cell with a color standard. Record as parts per million (ppm) copper (Cu). |
| 2 x 4028  | Pipet, Calibrated (0.5 mL) w/ cap, plastic                |   |
| 1 x 9049  | Midget Comparator, Copper, Cuprizone, 0.2-3.0 ppm         |   |
| 1 x R-0860-A  | Copper Reagent #1*, .75 oz                                |   |
| 1 x R-0861-A  | Copper Reagent #2**, .75 oz                               |   |
| <b>Iron</b>   |   |   |
| 1 x 3243  | Cap, Test Cell (11.5 mL), plastic                         | <b>Iron Test</b>  |
| 1 x 4024  | Test Cell, Calibrated (11.5 mL), plastic                  | 1. Rinse and fill 11.5 mL test cell (#4024) to mark with water to be tested.                      |
| 2 x 4028  | Pipet, Calibrated (0.5 mL) w/ cap, plastic                | 2. Using a 0.5 mL pipet (#4028), add 0.5 mL R-0851 Iron Reagent #1. Cap and mix. WAIT 2 MINUTES.  |
| 1 x 9051  | Midget Comparator, Iron, Tripyridyl-s-triazine, 0-2.0 ppm | 3. Using a separate 0.5 mL pipet, add 1.0 mL (2 x 0.5 mL) R-0852 Iron Reagent #2. Cap and mix.    |
| 1 x R-0851-A  | Iron Reagent #1***, .75 oz                                | 4. Wipe dry and place in comparator (#9051) WITH FROSTED SIDE FACING OPERATOR.                    |
| 2 x R-0852-A  | Iron Reagent #2, .75 oz                                   | 5. Match color in test cell with a color standard. Record as parts per million (ppm) iron (Fe).   |
| <b>Misc.</b>  |   |   |
| 1 x 5120  | Instruction   | *WARNING: Copper Reagent #1 (R-0860) contains 0.1-5% ammonium hydroxide, a corrosive alkali.      |
| 1 x 6002  | Brush, Test Cell  | **WARNING: Copper Reagent #2 (R-0861) contains 40-50% isopropanol (w/w), a flammable liquid.      |
| <b>TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE<br/>800-TEST KIT (800-837-8548).</b>        |   | ***WARNING: Iron Reagent #1 (R-0851) contains 5-10% hydrochloric acid, a corrosive acid.          |
| <b>PROCEDURE:</b>   |   |   |
| <b>CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS.<br/>KEEP REAGENTS AWAY FROM CHILDREN.</b> |   |   |
| <b>Copper Test</b>  |   |   |
| 1. Rinse and fill 11.5 mL test cell (#4024) to mark with water to be tested.                          |   |   |
| 2. Using a 0.5 mL pipet (#4028), add 0.5 mL R-0860 Copper Reagent #1. Cap and mix.                    |   |   |
| 3. Using a separate 0.5 mL pipet, add 0.5 mL R-0861 Copper Reagent #2. Cap and mix.                   |   |   |



31 Loveton Circle, Sparks, MD 21152 USA  
800-TEST KIT (837-8548) • 410-472-4340

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