Taylor's Metal Test Kits

Taylor's K-1153 uses a Slide comparator to compensate for color and turbidity in a water sample. It will measure iron 0–2.0 ppm.

INTRODUCTION

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—**molybdenum-based corrosion inhibitors**, for example—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**.

Corroded surfaces, staining or scaling, unsightly color, or an objectionable taste are all signs of metals in water. Taylor offers a number of field tests—based on either **color matching or drop-count titrations**—for measuring the concentrations of metals most commonly encountered in industry. Listed below are **stand-alone metal(s) tests**. Not shown here are the various **combination kits** prepackaged for specific applications, such as boilers, condensate return lines, and cooling water systems, that also contain metal tests. Call customer service for more information.

COPPER KITS

K-1730
Color Card comparator (using thiocarbamate); 0.05–1.0 ppm **free** Cu

K-1738
Midget comparator (using cuprizone); 0.2–3.0 ppm Cu

IRON KITS

K-1153
Slide comparator (using tripyridyl-s-triazine); 0–2.0 ppm Fe

K-1716
Midget comparator (using tripyridyl-s-triazine); 0–2.0 ppm Fe

COPPER & IRON KIT

K-1264
Midget comparators (using cuprizone/tripyridyl-s-triazine); 0.2–3.0 ppm Cu, 0–2.0 ppm Fe

MOLYBDENUM KITS

K-1805
Drop test (complexometric titration); 1 drop = 2, 5, 20, or 50 ppm Mo

K-1805P
Drop test (complexometric titration with powder indicator for increased stability); 1 drop = 2, 5, 20, or 50 ppm Mo

taylor *the most trusted name in water testing*

Taylor Technologies, Inc.
410-472-4340
800-TEST KIT (837-8548)
www.taylortechnologies.com

ISO 9001:2008 Certified

USER BENEFITS

- Slide™ 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.
- Titrations do not require the ability to match colors, only the ability to see the **permanent color change** at the end-point of the reaction.
- Test kits **come complete** with all necessary reagents and equipment.
- 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

- Various combination test kits containing **metal tests.**
- A wide array of single- and multiparameter 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.
- Myron L Company portable instruments and calibration solutions (sold separately in reagent packs).
- 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-1738 instruction:

COLOR COMPARISON TEST
COPPER (0.2-3.0 ppm)

Instr. #5119

COMPONENTS:

1 x 3243	**Cap, Test Cell (11.5 mL), plastic**
1 x 4024	**Test Cell, Calibrated (11.5 mL), plastic**
2 x 4028	**Pipet, Calibrated (0.5 mL) w/ cap, plastic**
1 x 5119	**Instruction**
1 x 6002	**Brush, Test Cell**
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**

TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE 800-TEST KIT (800-837-8548).

PROCEDURE:

CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS. KEEP REAGENTS AWAY FROM CHILDREN.

Copper Test

1. Rinse and fill 11.5 mL test cell (#4024) to 11.5 mL 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.
4. Wipe dry and place in comparator WITH FROSTED SIDE FACING OPERATOR. WAIT 5 MINUTES.
5. Match color in test cell with a color standard. Record as parts per million (ppm) copper (Cu).

*WARNING: Copper Reagent #1 (R-0860) contains 0.1-5% ammonium hydroxide, a corrosive alkali.
**WARNING: Copper Reagent #2 (R-0861) contains 40-50% isopropanol (w/w), a flammable liquid.

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