

Taylor's Test Kits for Food & Beverage Processors

INTRODUCTION

What do fresh-cut vegetable and fruit processors, food, meat, and poultry processors, bakeries and pizza dough makers, canneries, sugar refiners, dairy plants, beverage bottlers, breweries, and even pet food manufacturers have in common? The need to analyze water quality at various points of the production cycle, often as part of their Hazard Analysis and Critical Control Points (HACCP) Program. Indeed, water is arguably the most important production "tool" in any food-processing facility. Taylor testing supplies are commonly used to monitor process water in tanks and flumes, rinse water following equipment/food-surface sanitation, hand dip stations, water in boilers and cooling systems, and wastewater prior to discharge.

If you are in a food or beverage business, or you supply water treatment or sanitizing chemicals to this industry, or you perform regulatory inspections at these operations, Taylor manufactures simple drop-count titrations and color-matching tests for over 35 analytes to meet your water-testing needs.

Other products that may be of interest to you include **standard solutions**, such as pH buffers and conductivity solutions for meter calibrations; **general-use reagents** such as acid starch indicator powder, sulfuric acid, and phenolphthalein indicator; and **labware**, including a resin-filled demineralizer bottle for making deionized water in the field.

In addition, we are an authorized reseller of several popular **Myron L Company portable instruments**, which can be paired with Taylor's calibration solutions (sold separately), as well as Sani-Check® and Easicult® **bacteria tests**.

the most trusted name in water testing

novatech
INTERNATIONAL

sales@novatech-usa.com
www.novatech-usa.com
Tel: (866) 433-6682 Fax: (866) 433-6684
Tel: (281) 359-8538 Fax: (281) 359-0084



The drop-count titration in this FAS-DPD kit, K-1515-C, allows you to measure free and combined chlorine 0–20 ppm (in 0.2 or 0.5 ppm increments) without matching shades of pink. This is a boon for analysts with red-green colorblindness.

Our discount schedule offers significant savings to those whose annual purchases meet established thresholds, so it may be to your organization's advantage to practice "one-stop shopping" with Taylor. If you do not see the product or test range you need in this brochure, please check our comprehensive listings online or call 800-TEST KIT (837-8548). Our customer service staff will be pleased to discuss the possibilities for a **customized test kit or private labeling**, as well as our discount schedule.



Purchasing other manufacturers' products from Taylor, such as these test papers for total chlorine (#6023), can boost your discount level.

taylor

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

ACIDITY

K-1548

Drop test for **sulfuric acid** (neutralization to pH 4.5); 1 drop = 0.02–1.0 g/100 mL H₂SO₄ (plus conversion factors for phosphoric & sulfamic acids)

AEROBIC BACTERIA

K-1860 (25 tests)

Sani-Check[®] AB visual determination test (by Biosan); nutrient-supported growth; <10⁴, 10⁴, 5x10⁴, 10⁵, 5x10⁵, 10⁶, 5x10⁶, 10⁷, >10⁷ bacteria ct/mL

K-1861 (10 tests)

Easicult[®] Combi visual determination test (by Orion); nutrient-supported growth; 10³, 10⁴, 10⁵, 10⁶, 10⁷ total bacteria CFU/mL with yeasts & molds to 10⁶ CFU/mL

K-1862 (10 tests)

Easicult[®] TTC visual determination test (by Orion); nutrient-supported growth; 10³, 10⁴, 10⁵, 10⁶, 10⁷ total bacteria CFU/mL

ALKALINITY

K-1530

Drop test (using H₂SO₄); 1 drop = 10 ppm **total** alkalinity as CaCO₃

K-1531

Drop test (using H₂SO₄) for **caustic soda**; 1 drop = 0.1 or 1% NaOH

K-1533PM

Drop test (using H₂SO₄); 1 drop = 10 or 50 ppm **P/M** alkalinity as CaCO₃

K-1533PT

Drop test (using H₂SO₄); 1 drop = 10 or 50 ppm **P/T** alkalinity as CaCO₃

K-1542

Drop tests for **PET bottlers** measuring **M alkalinity** (using HCl); 1 drop = 10 ppm CaCO₃ and **total hardness*** (EDTA titration); 1 drop = 10 ppm CaCO₃

This 8 oz. resin-filled bottle (R-0804-DD) makes deionized water in the field.



The K-1645 Boiler & Cooling System combo kit is an economical choice for small operators.

BOILER & COOLING SYSTEMS

We offer many choices for testing boiler and cooling waters, from stand-alone tests you can use to create your own custom kit in one of our attaché-style carrying cases to pre-assembled combinations. The K-1645 is our most popular combination kit for small operators:

K-1645

Alkalinity: drop test (using H₂SO₄); 1 drop = 10 ppm **P/M** or **P/T** alkalinity as CaCO₃

Chloride: drop test (argentometric); 1 drop = 10 ppm Cl⁻

Hardness: drop test (EDTA titration); 1 drop = 10 ppm **total hardness*** as CaCO₃

Orthophosphate: color comparison (using stannous chloride) with 2-Standard comparator; 30 & 60 ppm PO₄

pH: color comparison (long range) with Color Card comparator; 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0 pH units

Sulfite: drop test (iodometric) for **sodium sulfite**; 1 drop = 10 ppm Na₂SO₃

CAUSTIC - see Alkalinity

CHLORIDE

K-1506

Drop test (argentometric) for **neutral pH waters**; 1 drop = 10, 25, 50, 100, or 500 ppm Cl⁻

CHLORINE

The selection below represents a diverse sample only. Our **FAS-DPD** kits are especially popular with food processors. The **bleach kit** is appropriate for testing the undiluted strength of bulk deliveries.

K-1151

Color comparison (using OT) with Slide comparator; 5, 15, 25, 50, 75, 100, 150, 200, 250 ppm **total** chlorine (Cl₂)

K-1401

Color comparison (using OT) with Midget comparator; 5, 25, 50, 75, 100, 150, 200, 250 ppm **total** chlorine (Cl₂)

K-1515-C

Drop test (using FAS-DPD); 1 drop = 0.2 or 0.5 ppm **free** or **combined** chlorine (Cl₂); can be used to test up to 20 ppm with a 10 mL sample

K-1579

Drop test (iodometric) for **bleach**; 1 drop = 10 or 100 ppm/0.05 or 0.5% **available** chlorine

K-1768-2

Color comparison (using DPD) with Midget comparator; 1.5, 2.0, 2.5, 3.0, 4.0, 6, 8, 10 ppm **free** or **total** chlorine (Cl₂) and **combined** chlorine by subtraction

CHLORINE DIOXIDE

K-1502

Drop test (using FAS-DPD); 1 drop = 0.2 ppm ClO₂

COPPER

K-1738

Color comparison (using cuprizone) with Midget comparator; 0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0 ppm **total Cu**

HARDNESS

K-1505

Drop test (EDTA titration); 1 drop = 2 or 10 ppm **total hardness*** as CaCO₃ (uses an odorless buffer)

K-1594

Drop test (EDTA titration); 1 drop = 10 ppm **calcium** or **total hardness*** as CaCO₃ and **magnesium** hardness by subtraction

HYDROGEN PEROXIDE

K-1825 (2 oz.), K-1826 (.75 oz.)

Drop test (iodometric); 1 drop = 5 ppm H₂O₂

IODINE

K-1593

Drop test (iodometric); 1 drop = 2.5 or 5 ppm iodine (I₂)

IRON

K-1716

Color comparison (using tripyridyl-s-triazine) for **total iron** with Midget comparator; 0, 0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0 ppm **total Fe**

OZONE

K-1822

Color comparison (using DPD) with Slide comparator; 0, 0.07, 0.13, 0.20, 0.26, 0.33, 0.40, 0.53, 0.66 ppm O₃

PERACETIC ACID

K-1546

Drop test (iodometric); 0–1000 ppm PAA



Use the K-1582 to ensure quaternary ammonium-based equipment/facility sanitizers do not exceed 200 ppm if you want to avoid a water rinse.

pH

6510

Myron L TechPro II™ TH1 meter; 0–14 pH units (also measures temperature)

6556

Myron L ULTRAPEN™ PT2; 0–14 pH units (also measures temperature)

PHOSPHONATE

K-1583

Drop test (using thorium nitrate/xylenol orange); 1 drop = 1 ppm ATMP (aminotri(methylenephosphonic acid)) plus conversion factors for five ATMP-related phosphonates; (uses pH test paper 1.8–3.8)

QAC & POLYQUAT

K-1582

Drop test (direct neutralization) for **high QAC** (quaternary ammonium compounds) and polyquat levels; 1 drop = 10 or 25 ppm QAC/ 1 drop = 3.5 or 9 ppm polyquat

K-9065

Drop test (direct neutralization) for **low QAC** (quaternary ammonium compounds) and polyquat levels; 1 drop = 1.25 ppm QAC/ 1 drop = 0.5 ppm polyquat

SALINITY

K-1577

Drop test (argentometric); 1 drop = 1 or 2 ppt salinity

SILICA

K-1272

Color comparison (heteropoly blue) with Slide comparator; 0, 5, 10, 15, 20, 25, 30, 40, 50 ppm SiO₂; by dilution: 0, 25, 50, 75, 100, 125, 150, 200, 250 ppm SiO₂ or 0, 50, 100, 150, 200, 250, 300, 400, 500 ppm SiO₂

SULFITE

K-1529

Drop test (iodometric) for **sodium sulfite**; 1 drop = 2 or 10 ppm Na₂SO₃

TOTAL DISSOLVED SOLIDS

K-1664

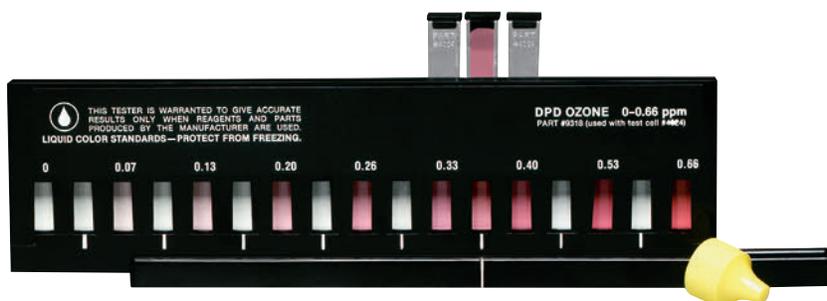
Drop test (acid-base titration); 1 drop = 50 ppm TDS as CaCO₃

6540

Myron L 512T5 meter; 0–5000 TDS as CaCO₃

6555

Myron L ULTRAPEN™ PT1; 0–10,000 μS or ppm TDS as CaCO₃ (also measures salinity and temperature)



Taylor's liquid-color standards are guaranteed never to fade or the defective ampules will be replaced free of charge. (Shown: Slide™ comparator [from kit K-1822] for ozone 0–0.66 ppm.)

* includes inhibitors to prevent metal interference

USER BENEFITS

- Titrations do not require the ability to match colors, only the ability to see the **permanent color change** at the endpoint of the reaction. These drop tests are practical for both **on- and off-site** testing.
- Slide™ comparators (using nine liquid-color standards molded in impact-resistant plastic) are **designed to compensate for color and turbidity** in the sample. 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 Card comparators are laminated** to protect the printed-color standards from water and chemicals.
- **Waterproof instructions** are printed on plastic-impregnated paper that resists fading and tearing.
- **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

- Value-priced combination kits designed primarily for pool operators that involve either color matching to printed-color standards or simple drop tests. These kits come in ranges useful for some food processors; for instance **K-1001** measures free chlorine .5–5 ppm with DPD, as well as pH 6.8–8.2 (100 tests apiece).
- 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.
- **Calibration solutions** for Myron L meters 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-1515-C instruction:

DROP TEST		Instr. #5216
FAS-DPD CHLORINE (1 drop = 0.2 or 0.5 ppm)		
COMPONENTS: 1 x 5216 Instruction 1 x 9198Y Sample Tube, Graduated, 25 mL, plastic w/cap and yellow dot 1 x R-0003-C DPD Reagent #3, 2 oz, DB 1 x R-0870-I DPD Powder, 10 g 2 x R-0871-C FAS-DPD Titrating Reagent (chlorine), 2 oz, DB	6. Add R-0871 FAS-DPD Titrating Reagent (chlorine) dropwise, swirling and counting after each drop, until color changes from pink to colorless. Always hold bottle in vertical position. 7. Multiply drops in Step 6 by drop equivalence (Step 1). Record as ppm combined chlorine (CC).	 Fig. 1
TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE 800-TEST KIT (800-837-8548).		 Fig. 2
PROCEDURE: CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS. KEEP REAGENTS AWAY FROM CHILDREN.		
Chlorine Tests (Free & Combined) 1. Rinse and fill sample tube (#9198Y) to desired mark with water to be tested (Fig. 1). NOTE: For 1 drop = 0.2 ppm, use 25 mL sample. For 1 drop = 0.5 ppm, use 10 mL sample. 2. Add 2 dippers R-0870 DPD Powder. Swirl until dissolved. Sample will turn pink (Fig. 2) if free chlorine is present. NOTE: If pink color disappears, add R-0870 DPD Powder until color turns pink. 3. Add R-0871 FAS-DPD Titrating Reagent (chlorine) dropwise, swirling and counting after each drop, until color changes from pink to colorless. Always hold bottle in vertical position. 4. Multiply drops in Step 3 by drop equivalence (Step 1). Record as parts per million (ppm) free chlorine (FC). 5. Add 5 drops R-0003 DPD Reagent #3. Swirl to mix. Sample will turn pink if combined chlorine is present.		



31 Loveton Circle, Sparks, MD 21152 U.S.A.
800-TEST KIT (837-8548) • 410-472-4340

3/09