



## Procedure Steps | SOP

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### Chlorine Test Kit

1 drop = 1 ppm / 25 mL

**KIT COMPONENTS:**

|           |                                     |
|-----------|-------------------------------------|
| SA1940-A  | Sulfuric Acid 50%, 30 mL            |
| PI1450-B  | Potassium Iodide 50%, 60 mL         |
| ST5010-B  | Starch Indicator Solution 1%, 60 mL |
| ST7601-B  | Sodium Thiosulfate Titrant, 60 mL   |
| SY-2010-P | Syringe, 10 mL                      |
| VL-1005-V | Vial, 10-50 mL                      |

**INTERFERENCES:** All oxidizers, including Bromine, are positive interferences for this test. Interferences include, a pH over 8, Total Hardness over 1000 ppm, sulfate over 1000 ppm, Total Alkalinity over 150 ppm, any concentration of Nitrite, Nitrate over 200 ppm, Silica Dioxide over 50 ppm, Copper over 10 ppm, any concentration of Ferrous Iron (Fe2+), and Ferric Iron (Fe3+) over 5 ppm.

TK1121-Z-INST REV 08/17

### TK1121-Z

orange caps

**SAFETY TIPS:**

- Wear Gloves
- Use Eye Protection
- Read SDS

**TESTING TIPS:**

- Collect Accurate Sample
- Hold Bottles Vertically
- Ensure Proper Lighting

**ATTENTION:** As necessary, calibrate this kit against a known standard made with plant / make-up water. Be sure to collect a representative sample.

It is important that each reagent be added and then mixed well for at least 5 seconds before the addition of the subsequent reagent.

Video Procedure



EndPoint ID<sup>®</sup> Test Procedure

### Chlorine Test Kit

**TK1121-Z**

- Rinse vial three times with sample to be tested. **Fill vial to 25 mL.**
- Add 20 drops of Potassium Iodide 50% (PI1450)** and swirl 5 seconds to mix.
- Add 3 drops of Sulfuric Acid 50% (SA1940)** and swirl 5 seconds to mix. Sample will turn yellow or brown if chlorine is present.
- Add Sodium Thiosulfate Titrant (ST7601)** one drop at a time while swirling. Count the number of drops until the sample turns a pale yellow.
- Add 5 drops of Starch Indicator Solution 1% (ST5010)** and swirl 5 seconds to mix. Sample should turn a dark color.
- Add Sodium Thiosulfate Titrant (ST7601)** one drop at a time while swirling. Count the number of drops until the sample turns colorless. Add the total number of drops (step 4 & 6) and multiply by the factor below:  
  
# drops x 1 = ppm Total Chlorine



STEP 1



STEP 4



STEP 5



STEP 6

Note: # of drops is equal to ppm Total Chlorine

## Tools Needed





**PPE Needed**



**Required Cleaners & Sanitizers**

**Chlorilizer Plus | AFCO 0251**

*\*\* Chlorilizer Plus (AFCO 0251) is a concentrated solution of sodium hypochlorite used to sanitize nonporous food contact surfaces in dairies, meat and poultry plants. Chlorilizer Plus can also be used .in fruit and vegetable washing, food egg sanitization, and disinfection of drinking water.*



### **Vigil-Quat | AFCO 4312**

*\*\* Vigil-Quat is a liquid sanitizer, disinfectant, fungicide, and virucide intended for use in food handling and processing areas and approved for use in federally inspected meat and poultry plants. Vigil-Quat is an effective sanitizer for use on hard, non-porous food contact surfaces.*



### **Per-Ox | AFCO 4325**

*\*\* Per-Ox is an EPA-registered peroxyacetic acid sanitizer which is recommended as follows: For Institutional / Industrial sanitizing of previously cleaned non-porous food contact surfaces in: > Dairies, Wineries, Breweries and Beverage Plants > Meat and Poultry Processing/Packaging Plants > Milk and Dairy Products Processing/Packing Plants > Seafood and Produce Processing/Packing Plants > Food Processing/Packing Plants > Egg Processing/Packing Equipment Surfaces > Eating Establishments. For Institutional / Industrial sanitizing of previously cleaned hard, non-porous food contact surfaces such as: > Eating, Drinking, and Food Preparation Utensils > Countertops and Food Preparation Surfaces > Tableware > Plastic, Glass and Metal Bottles (rinse) For use as a sanitizer on food contact surfaces in contact with products labeled as organic. For use as a coarse spray for surfaces to be sanitized or disinfected. Per-Ox is for sanitizing hard, inanimate, non-food contact surfaces (general environmental surfaces). Per-Ox is for use in the disinfection of hard, non-porous surfaces in general commercial environments such as: > Food processing plants > Pharmaceutical and chemical facilities For use as an antimicrobial container rinse to control beverage spoilage microorganisms.*



### **Scrubbie | AFCO 5249**

*\*\* Scrubbie (AFCO 5249) is a high foaming, highly alkaline cleaner/degreaser which is designed for removing fat, grease, and oily soils from food processing equipment in dairies, bakeries, and in meat and poultry processing plants. AFCO 5249 is a versatile cleaner and is effective in a wide variety of applications. In addition to cleaning food processing equipment, it can be used for cleaning floors, walls, and for soak cleaning metal parts.*

