

## Methods

Ozone is a strong oxidizing agent and is used as an alternative to chlorine as a biocide in the disinfection of drinking water. Ozone is used to remove odor, decolorize, and to control algae and other aquatic growths.

Ozone is also used in various disinfectant and sterilization processes in the food & beverage and pharmaceutical industries.

### The DPD Method

**References:** USEPA Methods for Chemical Analysis of Water and Wastes, Method 330.5 (1983). APHA Standard Methods, 22<sup>nd</sup> ed., Method 4500-Cl G - 2000.

Potassium iodide is added to the sample before analysis. Ozone reacts with the iodide to liberate iodine. The iodine reacts with DPD (N, N-diethyl-p-phenylenediamine) to form a pink color. Results are expressed as ppm (mg/L) O<sub>3</sub>.

## Visual Kit

**Range: 0-0.6 & 0.6-3 ppm**  
MDL: 0.025 ppm / Method: DPD

	Cat#
<b>CHEMets Kit</b>	<b>K-7404</b>
CHEMets Refill, 30 ampoules	R-7404
Activator Solution Pack, six 10 mL bottles	A-7400 <sup>1</sup>
Low Range Comparator 0, 0.05, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6 ppm	C-7404
High Range Comparator 0.6, 0.8, 1.0, 1.25, 1.5, 1.75, 2.0, 2.5, 3.0 ppm	C-7405

Kit comes in a plastic case and contains everything needed to perform 30 tests: Refill, Low and High Range Comparators, Activator Solution, 25 mL sample cup and instructions.

## Instrumental Kits

### Multi-Analyte Photometers

V-2000 / V-3000 Series

(See page 14 for instrumental features)

**Range: 0-5.00 ppm**  
Method: DPD

	Cat#
<b>Vacu-vials Kit</b>	<b>K-7423</b>

Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules, Activator Solution, 25 mL sample cup, ampoule blank and instructions.

*Vacu-vials Kits require the use of a CHEMetrics Direct-Readout Photometer (photometers sold separately) or a spectrophotometer capable of accepting a 13 mm diameter round cell. See page 14 for details.*



## SAM Single-Analyte Photometer

(See page 17 for instrumental features)

Range: 0-5.00 ppm

Method: DPD

	Cat#
<b>SAM Kit</b>	<b>I-2019</b>
Vacu-vials Kit, 30 ampoules, Activator Solution, 25 mL sample cup, ampoule blank and instructions.	K-7423

SAM Kit comes in a plastic case and contains everything needed to perform 30 tests: Vacu-vials Kit, SAM Photometer, light shield, 4 AAA batteries, screwdriver, and instructions.

### Kit Components common to Ozone

Description	Cat#
Sample Cup Pack, 25 mL (6 ea)	A-0013
Ampoule Blank Pack (5 ea)	A-0023

<sup>1</sup>The accessory pack supplies enough solution to perform at least 200 tests.

*Instructions and MSDS(s) are posted on our website.  
If no shelf-life is listed for a product, then the shelf-life is at least 2 years.*

