1200 COLORIMETER
OZONE

MODEL 1200-OZ CODE 3678-01

QUANTITY	CONTENTS	CODE
15 mL	Chlorine Inhibitor	3990-E
250 mL	*Ozone Buffer	*3991-K
30 mL	Indigo Blue Stock Solution	3989-G
1	Bottle, HR Reagent, amber glass	0680-J
1	Sampling Apparatus	0681
1	Pipet, transfer, 1.0 mL	2-2170
1	Pipet, 5 mL, glass volumetric	0329
1	Pipet Pump, 10 mL	2-2216
1	Graduated Cylinder, 50 mL, glass	0418
1	Colorimeter Tubes, w/caps	0290-6
1	1200 Colorimeter for Ozone	26735

*WARNING: Reagents marked with an * are considered to be potential health hazards. To view or print a Material Safety Data Sheet (MSDS) for these reagents go to www.lamotte.com. To obtain a printed copy, contact LaMotte by e-mail, phone or fax.

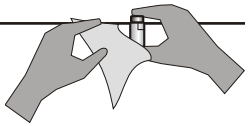
To order individual reagents or test kit components, use the specified code numbers.

INTRODUCTION

Ozone is sometimes used in place of, or in conjunction with, chlorine or other halogens for disinfection of pool, spa or drinking waters. Recently, large aquatic facilities have begun using ozone as a disinfectant in many artificial habitats.

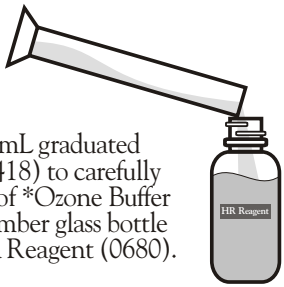
OZONE TEST PROCEDURE - INDIGO METHOD

Read the 1200 Colorimeter Manual before proceeding. Carefully wipe tubes dry before inserting into the colorimeter chamber.



PROCEDURE

1.



Use the 50 mL graduated cylinder (0418) to carefully add 45 mL of *Ozone Buffer (3991) to amber glass bottle marked HR Reagent (0680).

2.

Use the 5 mL volumetric pipet (0329) and pipette pump (2-2216) to add 5 mL of Indigo Blue Stock Solution (3989) to the amber glass bottle. Cap and mix.

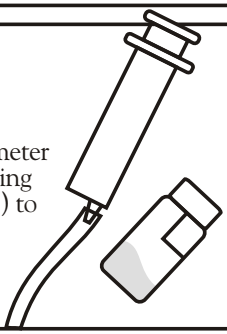
3.

Use the 1.0 mL transfer pipet (2-2170) and pipette pump (2-2216) to add 1.0 mL of HR Reagent to each of 2 clean colorimeter tubes (0967).

4.

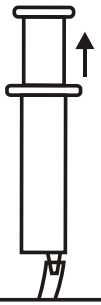
If chlorine is present, add 3 drops Chlorine Inhibitor (3990) to each tube. Cap tubes.

5.



Take one of the prepared colorimeter tubes and sampling apparatus (0681) to sampling site.

6.



Lower the end of the tubing of sampling apparatus to desired depth. Slowly withdraw and depress plunger several times to purge syringe and tubing. Slowly withdraw plunger to fill purged syringe.

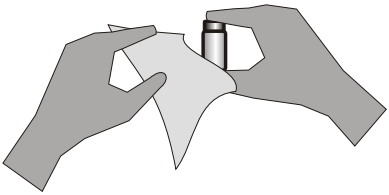
7.

Remove plastic tubing from syringe. Remove cap from the prepared tube. Place tip of syringe against inside of the prepared tube. Slowly depress plunger and fill to the 10 mL line and cap. This is the Sample Tube. NOTE: Do not shake or invert the sample.

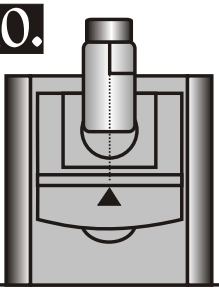
8.

Fill the second prepared tube (0967) to the 10 mL line with ozone free water. This is the Reagent Blank.

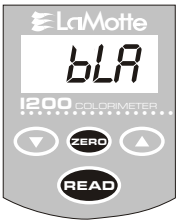
9. Wipe both tubes clean with a lint-free cloth.



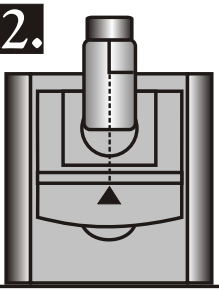
10. Insert the Reagent Blank into the chamber, being sure to align the index line with the arrow on the meter. Close the lid. This tube is the blank or zero.



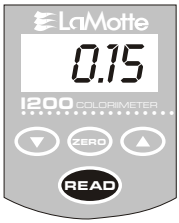
11. Push the **READ** button to turn the meter on. Press the **ZERO** button and hold it for 2 seconds until *BLA* is displayed. Release the button to take a zero reading (0 ppm).



12. Insert the Sample Tube into the chamber, being sure to align the index line with the arrow on the meter. Close the lid.



13. Push the **READ** button. The concentration in ppm will be displayed within 2 seconds.



Note:

The HR Reagent must be made fresh each week. If reagent is refrigerated, it may be kept up to 3 weeks.

NOTE: Zeroing the meter with sample water or an empty chamber will result in an *Er2* message when reading reacted samples. Meter must be zeroed with a reagent blank.

OZONE TEST METHOD SPECIFICATIONS

APPLICATION

Drinking, pool, and aquatic waters.

RANGE

0.0 - 0.5 ppm Ozone

METHOD

Ozone rapidly and stoichiometrically decolorizes Indigo Trisulfonate under acidic conditions.

HANDLING & PRESERVATION

Ozone is extremely unstable in aqueous solutions. Test must be performed immediately and the sample must not be agitated.

INTERFERENCES

Manganese at any level will interfere.