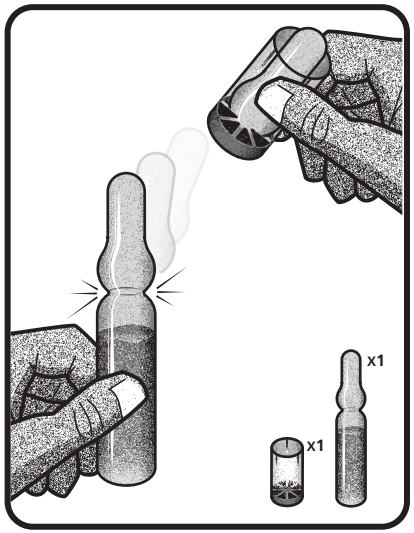
environmental express®

Primary Chlorine Standard Kit
1.5 mg/l Cl_2 (N.I.S.T.)

This self-contained kit will allow for the preparation of 100 ml of a 1.5 mg/L primary chlorine standard without the use of additional pipettes or other glassware. Carefully follow all instructions for best results.

Procedure:



1. Open the bottle containing 98.5 mL of Zero Chlorine Demand Water.
2. Before snapping the ampoule, ensure that all of the standard is in the body of the ampoule and not in the neck. If some standard is in the neck, gently tap the bottom of the ampoule on a solid surface and it will release.
3. Using the provided ampoule breaker, snap the neck of the ampoule at the line. See illustration.
4. Pour the complete contents of the ampoule into the bottle of Zero Chlorine Demand Water. If necessary, tap the ampoule on the side of the bottle to help it dispense.
5. Securely cap the bottle and invert to mix (do not shake).

   NOTE: As with any standard, accuracy errors with the instrument and reagent used must also be applied appropriately. Results ranging from ____ – ____ mg/L Cl_2 are acceptable.

   IMPORTANT: Due to the inherent instability and temperature dependence of the mixed chlorine standard, use as soon as possible. Discard after 30 minutes.
6. Dispose of the empty ampoule parts in a safe refuse container to prevent injury in accordance to federal, state, and local regulations.

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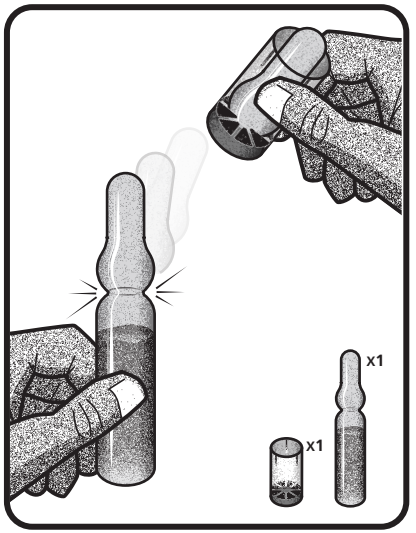

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Certificate of Analysis
Chlorine Standard Ampoule

Analyte: Total Residual Chlorine **Lot Number**: _____

Manufacture Date: _____ **Expiration Date**: _____

Certified Concentration: mg/l ± 0.0

STORE AT 2-8°C (35-45°F); PROTECT FROM SUNLIGHT

Traceability Information:

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced below. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, where available.

CAS Number	Description	Purity
7681-52-9	Sodium hypochlorite solution	100%

Method: This CRM was verified by a procedure that is equivalent to USEPA and Standard Method 4500-Cl G for drinking water and wastewater analysis. n=10.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request. All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our standards is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Intended Uses
- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. “check standards”
- Detection limit studies

Uncertainty: The ± uncertainty associated with the concentration is the expanded manufacturing uncertainty at 95% confidence interval (CI) with K=2.

Homogeneity: This product was thoroughly mixed in production and is guaranteed homogeneous.

All parameters and determinations listed above are measured and assured in an ISO/IEC 17025:2005 accredited environment (ANAB accredited, Certificate AT-1690) and according to ISO Guide 34:2009, Certificate AR-1571.

This certificate is issued and valid without signature.

Environmental Express
2345A Charleston Regional Parkway Charleston, South Carolina 29492
Technical Support: 800-745-8218 / tech@environmentalexpress.com

Printed in the U.S.A.
Subject to change without notice.
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