

# Ammonia CHEMets® Kit

K-1420/R-1402: 0 - 4 & 0 - 80 ppm N

## 0 - 4 ppm Test Procedure

1. Fill the sample cup to the 20 mL mark with the sample to be tested. Fig. 1
2. Add 4 drops of A-1404 Stabilizer Solution. Fig. 2
3. Add 4 drops of A-1405 Catalyzer Solution (green). Fig. 2
4. Add 4 drops of A-1406 Activator Solution (blue). Fig. 2
5. **Immediately** place the CHEMet ampoule, tip first, into the sample cup. Stir briefly to mix the contents of the cup, then snap the tip. The ampoule will fill leaving a bubble for mixing. Fig. 3
6. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
7. Dry the ampoule and wait **5 minutes** for color development.
8. Obtain a test result by placing the ampoule between the color standards until the best color match is found. Fig. 4

**NOTE:** Use the concentration scale on the comparator label that corresponds to the range of the test procedure being used.

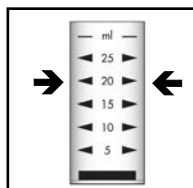


Figure 1

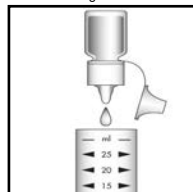


Figure 2

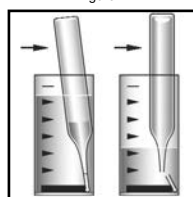


Figure 3

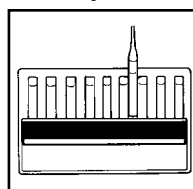


Figure 4

## 0 - 80 ppm Test Procedure

1. Using the syringe provided, obtain **1.0 mL** of the sample to be tested and dispense it into the empty sample cup.
2. Dilute the contents of the sample cup to the **20 mL** mark with distilled water.
3. Perform the 0 - 4 ppm Test Procedure, beginning with Step 2.

## Test Method

The Ammonia CHEMets®<sup>1</sup> test kit employs the Hydroxybenzyl alcohol (HBA) chemistry.<sup>2</sup> Free ammonia reacts with hypochlorite to form monochloramine. Monochloramine reacts with HBA, in the presence of sodium nitro-ferricyanide, to form a green colored complex. This test method measures the sum of free ammonia and monochloramine. High levels of ammonia can produce false low or off color test results. Dilute the sample if the ammonia concentration is suspected to significantly exceed the test range.

1. CHEMets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 3,634,038
2. Krom, Michael D., Spectrophotometric Determination of Ammonia: A study of a Modified Berthelot Reduction Using Salicylate and Dichloroisocyanurate, *The Analyst*, V105 pp. 305-316, 1980.

## Safety Information

Read SDS (available at [www.chemetrics.com](http://www.chemetrics.com)) before performing this test procedure. Wear safety glasses and protective gloves.

Visit [www.chemetrics.com](http://www.chemetrics.com) to view product demonstration videos.  
Always follow the test procedure above to perform a test.



[www.chemetrics.com](http://www.chemetrics.com)  
4295 Catlett Road, Midland, VA 22728 U.S.A.  
Phone: (800) 356-3072; Fax: (540) 788-4856  
E-Mail: [orders@chemetrics.com](mailto:orders@chemetrics.com)  
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