

# Ammonia ezSample™ (EZ-2334A)

0.2-3.0 ppm (mg/L) NH<sub>3</sub>-N

## Instrument Set-up

The PASPort Water Quality Colorimeter is specifically designed to support PASCO's ezSample™ test kits. Set up the PASPort Water Quality Colorimeter according to the equipment instructions. Set your display to read both high and low values. If the readings are above 1.0 mg/L, then use the Ammonia High reading (Ammonia (H)). If the readings are below 1.0 mg/L, use the Ammonia Low reading (Ammonia low (L)). Readings at 1.0 mg/L are accurate on both scales..

The calibration procedure is listed on the equipment instruction card.

## Safety Information

Read the Material Safety Data Sheet (MSDS) before performing this test procedure. Wear safety glasses and disposable gloves.

## 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 the 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 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. Use the PASPort Water Quality Colorimeter to measure the concentration value of the ampoule.

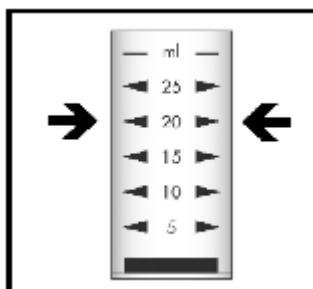


Figure 1

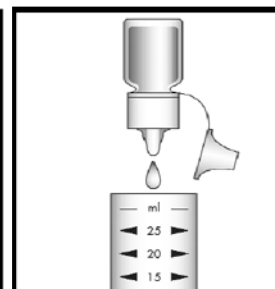


Figure 2

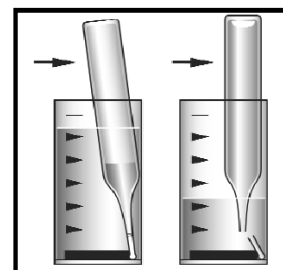


Figure 3

## **Test Method Description**

The ammonia ezSample test method employs the hydroxybenzyl alcohol (HBA) chemistry. Free ammonia reacts with hypochlorite to form monochloramine. Monochloramine reacts with hydroxybenzyl alcohol, in the presence of sodium nitro-ferricyanide, to form a green-colored complex. This test method measures free ammonia and monochloramine. This test method measures free ammonia and monochloramine in drinking water, clean surface water and good quality nitrified wastewater effluent.

Results are expressed in ppm (mg/Liter) ammonia-nitrogen, NH<sub>3</sub>-N. High levels (>20 ppm) of ammonia can reduce the intensity of the developed color from this reagent. In this case, instead of an over-range (>3.0 ppm) result, a false low test result may be obtained. If high levels of ammonia are suspected, a series of dilutions should be performed on the sample to confirm reagent performance.

## **Accuracy and practical detection limit (PDL)**

The lower limit of the stated test range is the “Practical Detection Limit (PDL).” Accuracy may be compromised if test results are outside of the test range. Test results obtained at or below the PDL should be further confirmed for best accuracy.