Ginninderra Waterwatch

*Communities in Action*

WATERWATCH Australian Capital Territory
Communities Caring for Catchments

# 7. Measuring phosphates

**Method for 'visocolor' HE Phosphate (range = 0.01 - 0.25 mg/L P)**

**Phosphomolybdenum blue method**

NOTE: This method requires that the temperature of the water sample should be between 18 and 30 degrees C. Outside this range the rate of the reaction decreases by finding less phosphate than is actually present.

**Hazard warning:** $PO_4^{-2}$ contains sulphuric acid 45%. Causes severe burns. Keep locked up and out of reach of children. Wear suitable gloves and eye / face protection. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. For further information ask for a safety data sheet.

**Procedure:**

1. Place comparator block into the position provided in the box.
2. Insert colour comparison disc.
3. Open both round glass tubes, rinse several times with the water sample and fill up to the mark with the sample.
4. Add 1 level black measuring spoon PO4-1 to the right glass tube, close and mix.
5. Add 15 drops PO4-2 to the right glass tube, close and mix. Wait 5 minutes.
6. Reading: Turn colour disc until both colours match by transmitted light from above. Read test results from the mark on the front side of the comparator. Intermediate values can be estimated.
7. After use, clean both round glass tubes thoroughly and close.

**Disposing of the samples:** The used analysis specimens should be emptied into your waste container. This can then be flushed down the drain with tap water and channelled off to the local sewage treatment works.

## Hints, suggestions and techniques

- The cleanliness of all sampling and analysis equipment is essential when testing for phosphates. All containers and equipment that will hold water samples or come into contact with reagents used in this test, should be dedicated. That is, they must not be used for other tests. This is to eliminate the possibility that reagents containing phosphate will contaminate the containers.
- ALWAYS wear plastic disposable gloves when analysing samples. They protect you from the reagents and samples, and also protect the samples from contamination.

## ACT Guidelines

Concentrations of >0.10 mg/L orthophosphates are considered to be very high.