

# Measuring reactive phosphorous 1

**UNIT:** Milligrams per litre (mg/L)

**EQUIPMENT:** Reactive phosphorous kit, a colour comparator test kit

**Safety note:** Please read the first aid procedures in the kit before commencing testing and ensure this kit is stored securely.

1. Put on your gloves and safety glasses
2. Set up the kit:
  - Remove test tubes and bolt from the foam holder
  - Slide in the colour wheel and replace bolt
  - Rinse both tubes three times with sample water.
  - Fill both test tubes with sample water to the line.



The test tube on the **outside** of the colour wheel is your control sample (put the lid on after filling) The test tube on the **inside** of the colour wheel is for chemicals. You may like to mark them to remember their position.

3. Add one level micro-spoon of  $\text{PO}_4^{1-}$  to the tube on the inside position.
4. Add **15 drops of  $\text{PO}_4^{2-}$**  into the same tube.
5. Place the **lid on** tube and **turn upside down and back gently** to dissolve the powder. Put tube back in holder.
6. Leave the solution for **five minutes** to allow colour to develop.
7. **Remove both lids** and look directly down at the tubes from 30cm away with the notch in the foam holder facing you. **Compare the colour** of the water in both test tubes and slowly turn the colour wheel until you get the best colour match possible.
8. When you have the closest colour match possible, read the number displayed on the colour wheel in the notch of the foam holder.
9. Record your result on the *water quality data sheet* or enter them directly into the River Detectives website.
10. Compare your result to the rating chart for your region.
11. Tip both tubes into your waste container and this waste should be tipped down a mains sewerage system (drain or toilet).