

5.10.1.2 Water purification – Technician notes

Sample guidance

Sea water

'Sea water' can be produced by dissolving 25 g sodium chloride in 1 dm³ water. The pH will need to be adjusted so that it produces a turquoise colour with universal indicator, indicating a pH of 8.0 – 8.5. This can be achieved by adding sodium carbonate solution in small volumes and monitoring with a pH probe until the desired pH is reached.

Spring water

'Spring water' can be simulated using 0.1 M magnesium sulfate solution. This should have a pH of 5.5 – 6.5 and should turn universal indicator yellow-green.

Rain water

'Rain water' could be distilled water acidified to produce an orange-yellow effect with universal indicator and a pH of 5.0 – 5.5. This can be done by bubbling carbon dioxide through the water whilst monitoring with a pH probe.