

METHOD STATEMENT



Determinand:

Nitrite Reducing Microorganisms

Matrix:

Water

Principle of Method:

The test consists of a screw capped, glass tube, half filled with pale orange coloured selective microbiological culture medium that indicates the presence of nitrite reducing microorganisms. A positive result is indicated by a bright pink colouration (alkaline) of the gel and/or bubbles of nitrogen gas in the gel.

The sample is first neutralised with pH buffer and then added to the tube, which is incubated for up to five days; tubes are examined throughout this incubation period.

Sampling and sample preparation:

Samples should be taken in sterile bottles containing sodium thiosulphate. Once taken, microbiological samples should be transferred immediately to dark storage conditions and kept at a temperature between 2 - 8°C for transport to the laboratory. If samples are not analysed immediately on receipt in the laboratory, they should be kept at a temperature between 2 - 8°C, in dark conditions until analysis commences.

Interferences:

Samples, which are themselves very alkaline, may produce an immediate pink colour in the gel. Samples, which are very acidic, will produce an immediate yellow colour in the gel and there may be so much acid present that any ammonia produced is neutralised and cannot turn the gel pink. In both cases a significant result is given by gas formation in the gel and not by colour change. The effects of acid and alkali in the samples is reduced by the buffer.

Performance of Method:

Results are calculated and reported per ml of sample using a test calibration graph; negative results are reported as 'ND'.

References:

LIA International NRB kit protocol leaflet provided with the kit.

Sig Nitrite (ECHA) protocol leaflet provided with the kit.