

METHOD STATEMENT

Determinand:

Stenotrophomonas species

Matrix:

Water

Principle of Method:

A known volume of water is filtered through a membrane filter with 0.45µm pores upon which bacteria are entrapped. The membrane filter is then placed on a selective growth medium and incubated at 30°C for 3 days after, which characteristic colonies are counted and sampled off for confirmation.

Presumptive *Stenotrophomonas* bacteria are defined as those bacteria that produce pigmented colonies on MacConkey agar after incubation at 30°C for 3 days. *Stenotrophomonas* species are confirmed and identified using protein profiling.

Sampling and Sample Preparation:

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.

Samples should be analysed as soon as practicable on the day of collection. In exceptional circumstances where there is a delay; storage under the above conditions should not exceed 24 hours before the commencement of analysis.

Interferences:

Chlorine and chloramines. Neutralise by adding sodium thiosulphate, which at a concentration of 18mg/l should counteract up to 5mg/l of free and combined residual chlorine. (The Microbiology of Drinking Water 2002).

Plasticisers can interfere in the mass spectrometry analysis. Only certified, non-plasticising plastic materials should be used.

Reporting of Results:

Presumptive *Stenotrophomonas* species numbers are quoted as the number of colonies per 100ml.

References:

Stenotrophomonas maltophilia. Venkateswara rao, T. Travancore Medical College. 8th July, 2011.

Palleroni N, Bradbury J (1993). "Stenotrophomonas, a new bacterial genus for Xanthomonas maltophilia (Hugh 1980) Swings et al. 1983". *Int J Syst Bacteriol* 43 (3): 606–609.

Yoon, J.-H., Kang, S.-J., Oh, H. W., Oh, T.-K. (2006). "Stenotrophomonas dokdonensis sp. Nov., isolated from soil". *Int J Syst and Evo Micro* 56: 1363 – 1367.

