

METHOD STATEMENT

Determinand:

Identification and Enumeration of Zooplankton (including Veligers) using the mesh recovery method.

Matrix:

Raw and Potable drinking waters and Environmental waters.

Principle of Method:

After the sample is taken it is fixed with Lugol's iodine solution. The sample is then poured through a mesh with a pore capture size of 140µm (50µm for Veligers). Zooplankton are then enumerated using a low powered 3-Dimensional Macroscope and expressed as numbers per unit Volume.

The method is a direct enumeration method. Samples that have a high degree of large particulate matter will tend to obscure the organisms and make identification difficult.

Sampling and Sample Preparation:

Samples should be taken in 1-litre PET bottles. Smaller vessels are accepted when there is a concentrate.

Fix the sample with Lugol's Iodine (either at the time of sampling, or at the soonest convenience in the laboratory)

Invert or swirl the bottle several times to gently mix the sample.

When there a delay between sampling and analysis the samples should be stored in the dark between 2–8°C for up to 72 hours. When a sample has been fixed with Iodine or Formaldehyde the sample can be stored in a sealed vessel at room temperature for up to six months.

Interferences:

High sample debris will interfere with light macroscopy.

Reporting of Results:

Zooplankton are reported as organisms per litre.

Veligers are counted directly.

References:

Laboratory wall-charts and keys are used to aid Identification of Zooplankton.

