

MicroChem Laboratories (Pvt.) Ltd.

INSTRUCTIONS FOR SAMPLE COLLECTIONS

1. GENERAL

Sample for microbiological analysis must only be collected in sterile bottles or bags. Collect samples that are representative of the water /food being tested, and use aseptic techniques to avoid sample contamination. When sample is collected, leave ample air space in the bottle (at least 2.5 cm), and an identification number shall be marked on each container.

1.1 ORDER OF TAKING SAMPLE

When a number of samples for various purposes are being collected from same sampling point, the sample for **microbiological examination should be collected first.**

2. WATER SAMPLE COLLECTION – MICROBIOLOGICAL ANALYSIS

2.1 SIZE OF THE SAMPLE

The volume of a sample shall be at least 3/4 of the bottle provided by the laboratory (150ml). Larger volume, however, may need for pathogen identification.

2.2 SAMPLE COLLECTION

The bottles shall be kept unopened until moment it is required for filing. During sampling, the bottle shall be held by the base in one hand, while the other hand the stopper and cover are removed together, The bottle shall be filled, without rinsing, and the stopper shall be replaced immediately.

2.3 TRANSPORT AND STORAGE

Examination for bacteriological quality shall preferably be started within one hour of collection of the sample. If the time between sample collection and sample receiving exceeds 01 hour the samples should be transported in chilled condition using iced cooler (ideally $5\pm 3^{\circ}\text{C}$). Time between sample collection & test starting time ideally shall not exceed 24 hours, but not more than 48 hours. Sample shall not be frozen.

3. FOOD SAMPLE COLLECTION – MICROBIOLOGICAL ANALYSIS

3.1 SIZE OF THE SAMPLE

The volume of a sample shall be at least 50g/ml

3.2 SAMPLE COLLECTION

- ✓ **Finished products** Consumer package of foods should be sampled from original previously unopened container.
- ✓ **Bulk liquid material** Aseptically transfer a representative sample portion to a sterile container.
- ✓ **Bulk solid or semi solid** Aliquots from several areas of the food under examination should be taken to ensure a representative samples sterile spoon or spatula should be used.
- ✓ **Frozen bulk material** Obtain sample from few areas of the food with a sterile sharp sampling instrument.

3.3 TRANSPORT & STORAGE

The sample should be packed in such a way that breakage or spillage is avoided. Refrigerated products must be transported & stored in refrigerated condition and frozen product be transported and stored in frozen state. Do not use loose ice as this may cause product contamination if the container breaks or leaks. Transport time shall be as short as possible & should not be more than 24 hours. Hot products shall not transport along with ambient, chilled or frozen products.

N.B.

For Chemical analysis, water samples should be provided in a separate cleaned glass or plastic bottles. Volume should not be less than 1L. Volume, however, needed for the tests depends on the requested test parameters and the number of test parameters.