

# IDEXX

## Literature Cover Sheet

**IDEXX Library #:** 5AB

**Topic:** European Bottled Water Association Colilert Approval/Recommendation

**Title:** "EBWA Technical Manual, Quality Control Section"

**Author(s):** European Bottled Water Association

**Date:** 6/1/99

**Source:** EBWA Technical Manual, Quality Control Section

### **Highlights:**

- The European Bottled Water Association approves Colilert for bottled water coliform/E. coli testing
- MF and MTF "should only be performed by a trained microbiologist in a properly equipped laboratory."
- "Colilert™ is a simple test that can be performed with minimal laboratory facilities by relatively untrained staff. It is recommended for in-house and investigative testing because of its accuracy and speed."

# EBWA TECHNICAL MANUAL

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## WHAT ARE COLIFORM BACTERIA?

These are a group of bacteria that are likely to have originated from soil, plants or mammalian faeces. Their presence in bottled water is unacceptable because it may be indicative of faecal or environmental contamination. *E. coli* is particularly significant and dangerous.

### *Escherichia coli* (*E. Coli*)

- Indicates recent faecal contamination and is the major indicator of such contamination in food and drink.
- If found in a sample of water, it indicates that a dangerous and pathogenic bacteria/viruses may also be present in the water.
- Rare strains such as *E. coli* type 0157 may cause serious disease in humans.

### Action to be taken if *E. coli* is found in product water

- Hold or recall all water produced since previous negative test. (See section 9.1)
- Investigate to ascertain source of contamination and remedy if possible. The problem may be confined to one bottle, the plant, or the source.
- Dispose of contaminated water. Check permissible methods with local health authority.
- Notify authorities if contamination is severe and product has been supplied to clients.

### Coliforms

- Found throughout the environment and may not be linked with faeces.
- Often found in surface waters and in biofilm in drinking water distribution systems.
- Presence is undesirable but if *E. coli* is absent they are not necessarily a health threat.
- May be found in bottling plants and cooler taps contaminated from the environment.
- Returned bottles and used coolers may contain these organisms.
- Presence in bottled water is forbidden by regulations. Positive results require action.

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## Action to be taken if found in product water (but no *E.coli*):

- DO NOT distribute product.
- Test other bottles to confirm contamination. Release if no other bottles affected.
- Test to determine source of contamination paying special attention to taps and pipework.
- Check the bottle washer.
- CIP plant immediately or when source of contamination is found.

## Testing frequency for coliforms/E.coli:

- Members are expected to carry daily tests for coliforms on product water and weekly tests on the source and process water. These may be made in-house.
- Weekly tests of product water should be undertaken by an accredited outside laboratory.

## Testing methods:

The following methods are suitable:-

- Membrane filtration.
- Most probable number (MPN) multiple tube method.
- Colilert™ Test (PA – Presence/Absence test)

## Note:

- Methods 1 & 2 should only be performed by a trained microbiologist in a properly equipped laboratory.
- Colilert™ is a simple test that can be performed with minimal laboratory facilities by relatively untrained staff. It is recommended for in-house and investigative testing because of its accuracy and speed.