

# Independent Guide

## What is important to know about drinking water quality: Coliforms?



Independent workplace compliance

### What are coliforms, and how can contamination occur?

Coliform bacteria are a large group of various species of bacteria. They include faecal coliforms, which are found in abundance in the intestines of warm-blooded animals, and also non-faecal organisms, which can be found in water, soil and on vegetation. In general, coliforms are not normally the cause of serious illness, but because of their origin and ease to culture they are used to indicate that other more harmful bacteria, such as salmonella, may be present. Contamination often occurs due to poor cleaning regimes or bad personal hygiene, for example, not washing your hands after visiting the toilet, and then touching a water outlet, such as a tap.

### What is the legislation?

The Water Supply (Water Quality) Regulations and the Public Water Supplies (Scotland) Regulations. These regulations set strict guidelines to the physical properties of drinking water. They also state that drinking water should not contain certain chemicals or micro-organisms, such as coliform bacteria. This legislation is further enforced by the Workplace (Health, Safety and Welfare) Regulations, which state that every employer has a duty to supply "wholesome" drinking water.

### How do I know if it is present in my drinking water?

Regular testing of your drinking water supply by an independent company with no involvement with water treatment or maintenance of drinking water outlets, such as vending machines or water coolers, will ascertain whether coliforms or other bacteria are present in your water system. The microbiological quality of drinking water can be ascertained by using total viable bacteria counts to measure the effectiveness of water treatment and testing samples for specific organisms, to determine whether there has been any faecal contamination. In our experience, drinking water supplied directly from the mains in the UK tends to be of an extremely high quality (less than 1% of the samples we take from direct mains sources have failed to meet the wholesome drinking water criteria). However, we do find problems with drinking water quality in samples we take from vending machines and water coolers.

### What should be done if coliforms are detected in a vending machine or water cooler?

If coliforms are detected in a vending machine or water cooler, the following actions should be taken:

- Take the relevant machine out of service as soon as is practicable.
- Disinfect the machine in accordance with the manufacturer's specifications.
- Review cleaning procedures to ensure that they comply with current recommended guidelines.

To avoid problems with cross-contamination of machines, it is extremely important to ensure that the staff responsible for the cleaning and sanitising of the vending machines or water coolers are correctly trained and are aware of the potential for contamination during the cleaning process. It is also important to ensure that employees do not fill their own personal bottles from water coolers, as contamination of the nozzle can occur.

**This guide is of a general nature; specific advice can be obtained from Assurity Consulting. Assurity Consulting is the UK's leading independent compliance consultancy specialising in workplace health, safety and environmental solutions. We have over 30 years' experience of helping customers of all sizes, from across all sectors, manage their compliance responsibilities, making sure that their organisation is compliant, their employees are safe, their processes are cost effective and their management team is in control.**



### Assurity Consulting Limited

26 Redkirk Way Horsham West Sussex RH13 5QH  
t +44 (0)1403 269375 e info@assurityconsulting.co.uk  
w [assurityconsulting.co.uk](http://assurityconsulting.co.uk)

Registered in England and Wales Reg. No. 2227268  
Corporate Member of IWFM