



Interpretation of results for drinking water analysis¹

Escherichia coli (E. coli)

Norm = Absence (0 UFC/100ml)

Escherichia coli bacteria (E. coli) is commonly found in the human and animal gut. It is the only species specific to fecal contamination. Presence of E. coli in drinking water can be related to the presence of a potential pathogen microorganism contamination in the tested water. The sample is therefore considering non-drinkable and the water should be treated or boiled at least one minute before being consumed.

Enterococci

Norm = Absence (0 UFC/100ml)

Heterogenous group of bacteria that can be found in the human and animal gut in lower quantity than E. coli. However, that group of bacteria is more persistent in the environment and more resistant to treatment. Enterococci are used as an indicator of fecal contamination and, like E. coli, their presence in drinking water can be related to presence of a potential pathogen microorganism contamination. A sample with presence of enterococci is therefore considering non-drinkable and the water should be treated or boiled at least one minute before being consumed.

Total coliform

Norm = 10 UFC/100 ml or less (≤ 10 UFC/100ml)

Heterogenous group of bacteria commonly found in the environment (soil, vegetation). Usually, their presence does not indicate a fecal contamination or a sanitary risk but can be related to a degraded water quality. A result of 10 UFC/100 or less (≤ 10 UFC/100ml) is consider conform according to the regulation. It means the water has a satisfying quality level. If the result is between 1 and 10, a second analysis should be done within few weeks or month to make sure the contamination does not grow. A result greater than 10 UFC/100ml exceeds the quality standard. Many different factors can lead to this result. A well disinfection should therefore be done before doing a second water analysis.

Atypical colonies

Norm = 200 UFC/100 ml or less (≤ 200 UFC/100ml)

Atypical colonies are bacteria growing in the same conditions as total coliforms but aren't the same thing. They are considered as interference in the total coliform analysis but they aren't considered as a sanitary risk. However, when greater than 200 (>200 UFC/100ml) they interfere in the total coliform count which will give a result of ND (not determined because of the abundance of atypical colonies). Such result lead automatically to a noncompliance with the norm as the total coliforms can not be determined.

1. Based on Guide d'interprétation du Règlement sur la qualité de l'eau potable, version juin 2019