

Fluoridation and Water Quality

How is water quality monitored...?

Strict standards for the quality of the public water supply in England are laid down in national regulations, The Water Supply (Water Quality) Regulations 2016, derived from the EU Drinking Water Directive. These standards are based on advice from the World Health Organization (WHO) and are regularly reviewed to take account of new knowledge. The standards include maximum concentrations allowed for a whole range of chemicals that may be found in water.

[The Water Supply \(Water Quality\) Regulations 2016](#)

The law requires that drinking water is wholesome and clean. It sets down maximum acceptable concentrations for a number of potential contaminants.

[Prescribed concentrations and values](#)

In addition, there is a general clause, which requires:

"Water is free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health."

The quality of public water supplies in England and Wales is closely monitored and regulated by the independent Drinking Water Inspectorate (DWI), which reports each year.

How is water fluoridated...?

The technical aspects of water fluoridation schemes are the responsibility of the relevant water company. The water company has no formal decision-making role as to whether a scheme should be introduced, changed or stopped.

In designing and operating water fluoridation equipment, water companies must comply with a technical Code of Practice published by the Drinking Water Inspectorate.

[Code of Practice on Technical Aspects of Fluoridation of Water Supplies 2016](#)

What about possible contaminants...?

As described above, the chemical composition of the public water supply is tightly regulated. The only two chemicals allowed to be used in fluoridation schemes are specified in The Water Act 2003.

These are:

Disodium hexafluorosilicate	(BS EN 12174: 2013)
Hexafluorosilicic acid	(BS EN 12175: 2013)

In order to be used in drinking water, the quality and purity of these compounds have to comply with the relevant British (BS : EN) standards. British Standards are available via The British Standards Institution shop. (Note that a charge is payable for each Standard)

[The British Standards Institution](#)

So, by complying with the national Regulations, the relevant BS:EN standards as well as the DWI Code of Practice, water companies keep the chemical composition of water within safe legal limits.

How is Fluoride concentration monitored?

Water companies establish any variation in the natural fluoride concentration of the raw water and take this into account when designing the control mechanisms for a fluoride dosing plant. Continuous fluoride monitoring, linked to an appropriate alarm monitoring system and automatic plant shut down, is a requirement for all dosing installations.

Please note, this document will be updated as and when we receive more feedback on this particular topic.