

# Residual Chlorine

## TECHNICAL DATASHEET

**Residual chlorine is the low level amount of chlorine remaining in the water after a certain period or contact time after its initial application. It constitutes an important safeguard against the risk of subsequent microbial contamination after treatment—a unique and significant benefit for public health.**

Testing for residual chlorine is one of the most common tests used by water treatment plants. Through the residual chlorine test, the remaining chlorine amount is determined in water that has finished testing and is ready to be released in the distribution system.

### There are three forms of residual chlorine in water treatment:

**Free** - Residual chlorine composed of dissolved hypochlorite ions, hypochlorous acid and chlorine gas

**Combined** - Composed of chloramines that can kill bacteria and oxidize organic matter

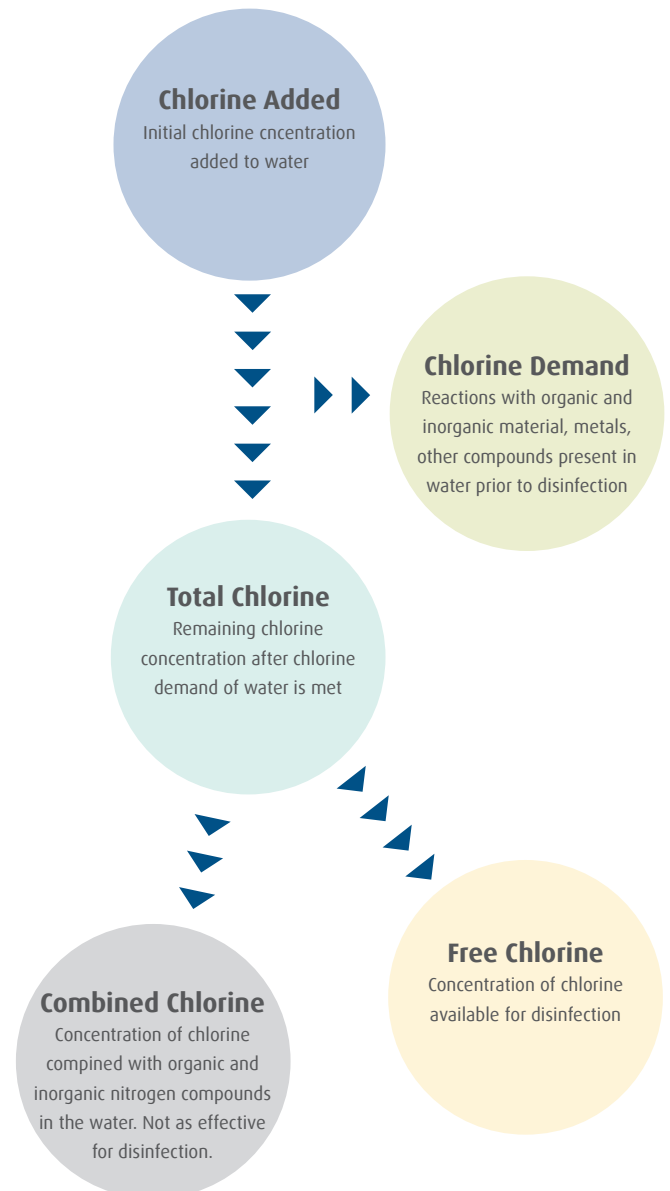
**Total** - The sum of free and combined residual chlorine

Strong acids including Hypochlorous acid are used as an oxidizing agent for the disinfecting of drinking water. However, these acids can also react as oxidants, especially with lead, which increases the chances of lead corrosion. Therefore, operators in water treatment and distribution plants must ensure that there is the proper amount of residual chlorine as the water reaches the end of the system.

In different settings and situations, there are sometimes required residual chlorine levels to prevent the occurrence of corrosion in water. This level must be determined and carefully studied by water plants for safe and efficient water processing and distribution.

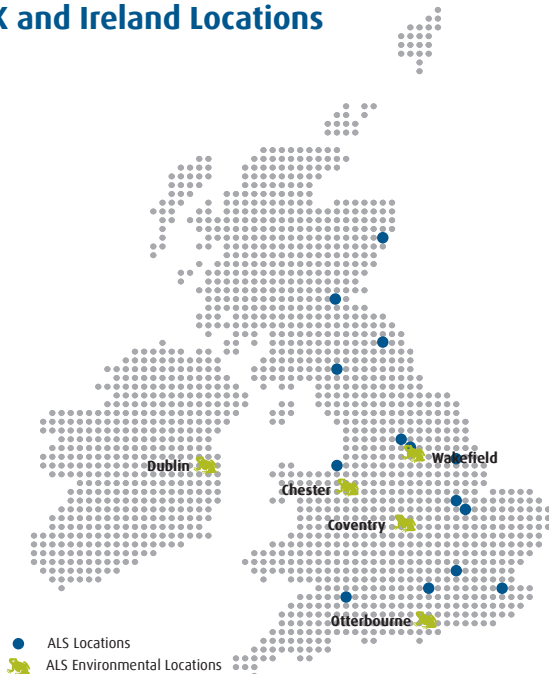
ALS Environmental are able to offer Residual Chlorine analysis in drinking water samples, to the following reporting limits:

Chlorine, Combined	0.03 mg/l
Chlorine, Free	0.02 mg/l
Chlorine, Total as CL2	0.03 mg/l



# Service overview

## UK and Ireland Locations



## Quality

Providing customers with UKAS ISO 17025:2005, MCERTS and DWTS accredited data from our laboratories across the UK. We participate in a broad range of Proficiency Testing schemes and hold a DEFRA import licence for soils.

## Did you know that?

We are able to provide a broad range of additional services to help with your sampling including:

- Internal refrigerated and tracked courier network
- National portfolio of drop-off locations
- Pre-Registration of samples via our "Pre-Reg" system
- Dedicated customer service advisor
- Online reporting via our WebTrieve system

## Contaminated Land

We understand the time pressures of large scale Remediation and Brownfield projects and are a member of the AGS. Our Coventry laboratory utilises state of the art analytical equipment with the back-up of our sister laboratories across Europe to ensure that we deliver your projects on time every time.

## Waste Management

By working closely with some of the largest companies in this sector we are able to offer unrivalled analytical and administration services to ensure that your samples are processed swiftly and in line with the UKAS Deviating Sample Guidance.

## Legionella and Microbiology

Being members of the Legionella Control Association (LCA) we understand the emphasis placed on laboratory analysis for the Control of Legionella. With 3 methods for testing Legionella (including rapid PCR) and an understanding and appreciation the implications of ACoP L8, HSG 274 and HTM04-01 we are your ideal analytical partner for all of your water hygiene monitoring requirements.

## Drinking Water

We are one of only a handful of commercial laboratories to have a dedicated Drinking Water Testing Specification (DWTS) accredited laboratory, based in Wakefield, Yorkshire. We are able to supply analysis to the Public and Private Drinking Water Regulations.