



# Chromium And Drinking Water

## TESTING FOR CHROMIUM IN LAKE MICHIGAN WATER

Though it is not required, the US EPA asked all water utilities nationwide to test their water for chromium-6 in January 2011. CLCJAWA responded by initiating testing, the results of which are below (n/d = not detected).

CLCJAWA has a very aggressive testing program testing for hundreds more compounds, than required by regulation. All of this information is available on our web site, in addition to special water quality reports that discuss any and all compounds we detect in water, regulated or not.

Date	Total Chromium (PPB)	Chromium 6 (PPB)
1/20/11	n/d	0.28
4/19/11	n/d	0.23
7/28/11	n/d	0.27
10/13/11	0.2	0.14
12/28/11	0.2	0.19
5/7/12	n/d	0.21
8/22/12	n/d	0.1
2/4/13	n/d	0.26
6/25/13	0.2	0.2
8/27/13	n/d	0.23
11/4/13	n/d	0.23
6/12/14	n/d	0.17
8/13/14	n/d	0.11
11/13/14	n/d	0.11
2/18/15	n/d	0.18
6/25/15	n/d	0.16
9/24/15	n/d	0.14
1/14/16	n/d	0.19
5/16/16	n/d	0.18

## WHAT IS CHROMIUM?

Chromium is an element found in our environment. It exists in two primary forms called trivalent chromium or chromium-3 and hexavalent chromium or chromium-6.

Chromium-3 is found worldwide in air (from smelters, dust, seawater & cigarette smoke), water (from electroplating processes, tanneries, textile manufacturing), soil (occurs naturally in rock and as a result of land disposal) and food (especially meats, vegetables and unrefined sugar). It is a micro-nutrient used by the human body. Chromium-6 exists naturally and is also an industrial pollutant. Its source in Lake Michigan is not yet known though metal refineries are suspected by some. Chromium-6 is found in contaminated air, water and though very few studies exist for food, was found in white and whole wheat bread.

## EPA REGULATIONS FOR CHROMIUM

Chromium is regulated by the United States Environmental Protection Agency (USEPA) in drinking water. The Illinois EPA has adopted the USEPA standard. This standard then applies to all public water supplies in Illinois.

The regulation for chromium is 100 micrograms per liter (also known as parts per billion). This regulation is for both chromium-3 and chromium-6 added together. In other words, under current regulations, a water supply is deemed safe as long as the sum of chromium-3 plus chromium-6 is less than 100 parts-per-billion. For more information, go to [www.epa.gov/dwstandardsregulation/chromium-drinking-water](http://www.epa.gov/dwstandardsregulation/chromium-drinking-water).

## WHAT IS A PUBLIC HEALTH GOAL?

In July 2014, the State of California adopted a chromium-6 maximum contaminant level of 10 PPB, with a public health goal of 0.02 PPB. The goal is based primarily on oral exposure studies in rats and mice conducted by the National Toxicology Program, and is the equivalent of 1/32 ounce of chromium-6 in one billion pounds of water. California is the only state enforcing this MCL for chromium-6.

***CLCJAWA currently meets all Federal and State regulations for chromium-3, and even meets the more stringent California regulations for chromium-6.***

The USEPA defines a goal as the level of a contaminant below which there is no known or expected health effect. Goals are established when their attainment is not technically and/or economically feasible. A standard, by contrast, is defined as the highest level of a contaminant that is allowed in drinking water. A standard is something that must be achieved by a water utility and is legally enforceable.

