

Total Organic Carbon (TOC)

What is Total Organic Carbon?

Total organic carbon (TOC) is used as a measure of water quality. Higher levels of TOC suggest water quality impact. Total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include total trihalomethanes (TTHM) and haloacetic acids (HAAs).

Does Total Organic Carbon have any additional names?

TOC

What are the known health effects?

When water with elevated TOC is disinfected with chlorine, disinfection byproducts may be generated. For drinking water, organic compounds may react with disinfectants to produce potentially toxic and carcinogenic compounds.

How does exposure occur?

TOC in source water comes from decaying natural organic matter as well as synthetic sources. Some detergents, pesticides, fertilizers, herbicides, industrial chemicals, and chlorinated organics are examples of synthetic sources.

Is this contaminant regulated?

Yes, limits are set for surface water sources only. Water supplied to customers of Mount Laurel MUA is in compliance with USEPA and NJDEP requirements. The only surface water source in the Mount Laurel MUA system is NJAWC. Sampling is required on both the untreated and treated water. Depending upon the type of treatment used and alkalinity of the water, certain % removals of TOC are required. NJAWC's surface water is in compliance.

How can I reduce exposure?

Reverse osmosis and ion-exchange, coupled with UV treatment will help reduce TOCs.

Additional information for this fact sheet, including the information referenced, can be found at:

https://en.wikipedia.org/wiki/Total_organic_carbon

<http://maineenvironmentallaboratory.com/?p=1095>