

Wake County Environmental Services Guide to understanding your inorganic water sample results

Parameter	MCL'S * EPA Primary Standards	Potential Health Effects from Ingestion of Water containing substance in levels above MCL's	Aesthetic limits # EPA Secondary Standards	Potential Effects from water usage	TREATMENT
Acid water (low pH)		Generally does not present a health risk	6.5-8.5	Bitter metallic taste, corrosion of pipes	Neutralizer
Alkalinity	No limit				Weak acid solution with feed pump and flow meter
Arsenic	0.010	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer			Reverse Osmosis system
Barium	2.0	Increase in blood pressure			Reverse Osmosis system
Calcium	No limit				Water softener
Cadmium	0.005	Kidney damage			Reverse Osmosis system
Chloride			250	Salty taste	Reverse Osmosis system
Chromium	0.100	Allergic dermatitis			Reverse Osmosis system
Fluoride	4.0	Bone disease (pain and tenderness of the bones); Children may get mottled teeth	2.0	Tooth discoloration	Reverse Osmosis system
Copper	1.3	Short term exposure: Gastrointestinal distress Long term exposure: Liver or kidney damage	1.0	Metallic taste, blue green staining	Reverse Osmosis
Hardness	No limit	Generally does not present a health risk			Water Softener
Iron			0.3	Orange staining, metallic taste	Softener/iron precipitation and then filtration.
Lead	0.015	Infants and children: Delays in physical or mental development; Adults: Kidney problems; high blood pressure			Reverse Osmosis system
Magnesium	No limit				Reverse Osmosis system
Manganese			0.05	Black staining, metallic taste	Softener / manganese precipitation and then filtration.
Mercury	0.002	Kidney damage			Reverse Osmosis system
Nitrate/Nitrite	10ppm/1ppm	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome			Reverse Osmosis system
Selenium	0.05	Hair or fingernail loss; numbness in fingers or toes; circulatory problems			Reverse Osmosis system
Sodium	No limit				Reverse Osmosis system
Zinc			5.0	Metallic taste	Flushing of pipes or Reverse Osmosis System

NOTE: It is recommended that the homeowner be diligent in finding the best treatment for a particular water problem.
Please contact Wake County Environmental Services at: 919-856-7400 with questions.

* MCL = Maximum Contaminant Level (water considered safe to consume) measured in mg/l # Aesthetic Limits measured in mg/l