



IRON



What are the effects of iron in drinking water?

Iron is an essential element in human nutrition, and the average intake of iron from food is substantially higher than that from drinking water.

Water with a high concentration of iron is not considered a health risk but may cause the staining of plumbing fixtures or laundry. It can collect and block pipes or fixtures and produce colour, taste and rust flakes in the water. Iron can also increase the growth of unwanted bacteria that form a slimy coating in water pipes.

What is iron?

Iron is a metallic element present in many rock types, and has the symbol “Fe”. Iron is commonly found in water and is an essential element required in small amounts by all living organisms. Concentrations of iron in groundwater are generally higher than those measured in surface waters.

What is the guideline for iron?

The Aesthetic Objective (AO) for iron in drinking water is less than or equal to 0.3 milligrams per litre (mg/L). The taste, colour and smell of iron at concentrations above the aesthetic objective may be noted by some.

Removing iron from drinking water

Carbon filtration units can remove some forms of undissolved iron. Dissolved iron can be removed by pre-treating water with chlorine, ozone or certain other chemicals that cause the metals to precipitate and settle or be filtered out.

Water treatment methods such as ion exchange, oxidizing filters, and reverse osmosis can also be used but these have variable effectiveness and may be expensive for small water systems or households.

