

# *FACT SHEET*

## **Fluoride**

### **What is it?**

Fluorides are organic or inorganic compounds containing the element fluorine. Fluoride is useful for proper bone and tooth development at concentrations below 2 mg/L.

### **Are there other names for it?**

Fluoride is sometimes referred to by F<sup>-</sup>. In products such as toothpaste it is listed as the compound that is added (e.g. stannous fluoride).

### **Where does it come from?**

In private wells, fluoride is almost always present due to fluoride containing minerals in the ground. In many public water supplies fluoride is added to protect teeth.

### **Why should I be concerned about it?**

Fluoride is fairly unique among components in drinking water. It is unique in that it is beneficial to have some in your water, but harmful if you have too much. The American Dental Association and others have studied the effects of fluoride in drinking water and have determined that the optimum concentration of fluoride is between 0.7 and 1.2 mg/L. Many public water systems add fluoride to their water to make it within this range.

The USEPA has also set a primary standard for fluoride of 4.0 mg/L. At concentrations above this level it may cause bone disease including pain and tenderness of the bones.

The USEPA has set a secondary standard for fluoride of 2.0 mg/L. At this level discoloration of teeth as well as making them more brittle.

If the fluoride in your water is below the recommended 0.7 to 1.2 mg/L, it is advisable to consult with your dentist and use fluoride containing toothpaste and fluoride rinse.

### **What effect will boiling have on it?**

Fluoride does not evaporate. Boiling water will not remove fluoride, but will concentrate it.

### **How do I remove it?**

Fluoride is removed by ion-exchange or reverse osmosis. If you have fluoride levels at 2 mg/L or higher you should consider one of these systems. If you have a one of these systems you may need to use fluoride toothpaste and fluoride rinse to get proper protection for your teeth.