Suburban Property Inspections
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# CADMIUM FACT SHEET

## Brief Overview:

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| **Category:** | Metals |
| **Acceptable Level:** | 0.005 mg/L MCL Primary Drinking Water Standards |
| **Source:** | Natural occurring, Industry |
| **Effect:** | Short and Long-term Health Effects |
| **Follow up:** | Test for Cadmium and other metals |
| **Treatment:** | Coagulation/Filtration, Ion Exchange, Lime Softening, Reverse Osmosis |

## Details:

**Source:** Cadmium is a metal found in natural deposits as ores containing other elements. The greatest use of cadmium is primarily for metal plating and coating operations, including transportation equipment, machinery and baking enamels, photography, television phosphors. It is also used in nickel-cadmium and solar batteries and in pigments.

2.9 million lbs. of cadmium were produced in the US in 1986, and nearly twice that amount was imported in the same year. Cadmium occurs naturally in zinc, lead, copper, and other ores which can serve as sources to ground and surface waters, especially when in contact with soft, acidic waters. Major industrial releases of cadmium are due to wastestreams and leaching of landfills, and from a variety of operations that involve cadmium or zinc. In particular, cadmium can be released to drinking water from the corrosion of some glavanized plumbing and water main pipe materials.

Some cadmium compounds are able to leach through soils to ground water. When cadmium compounds do bind to the sediments of rivers, they can be more easily bioaccumulated or re-dissolved when sediments are disturbed, such as during flooding. Its tendency to accumulate in aquatic life is great in some species, low in others.

**Effect:** Short term: EPA has found cadmium to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: nausea, vomiting, diarrhea, muscle cramps, salivation, sensory disturbances, liver injury, convulsions, shock and renal failure.

Long term: Cadmium has the potential to cause the following effects from a lifetime exposure at levels above the MCL: kidney, liver, bone and blood damage.

**Follow up:** Treat and re-test for metals.

**Treatment:** Coagulation/Filtration, Ion Exchange, Lime Softening, Reverse Osmosis

Following installation of this system, the consumer should have the treated water tested for cadmium to verify cadmium reduction is being achieved and the system is functioning property.

For more information visit the USEPA website.

**For further technical assistance, call Suburban Property Inspections at 1-866-866-6700, or call the U. S. Environmental Protection Agency Safe Drinking Water Hotline at 1-800-426-4791.**