

STEPSORB: Unique Filtration Media

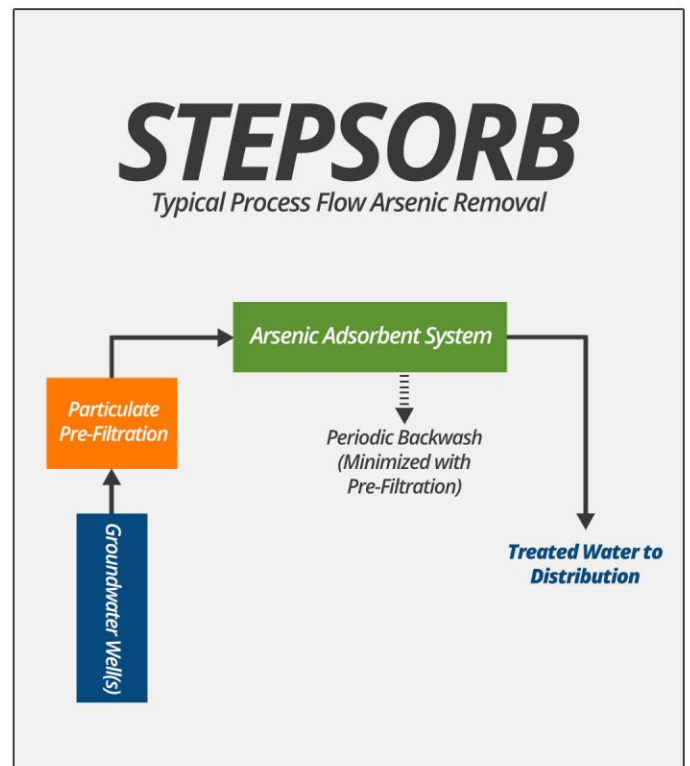
Arsenic occurring naturally in groundwater is classified as a human carcinogen (prone to cancer of the bladder, lungs, skin, kidney, liver, and prostate) by the International Agency for Research on Cancer and the National Research Council. In 2002.

The USEPA lowered the maximum contaminant level (MCL) for arsenic in drinking water from 50 µg/L to 10 µg/L, and the new MCL became effective in January 2006.

STEPSORB effectively reduce Arsenic in drinking water to below permissible limits. A simple to use device can be installed on any water flowing lines to filter out Arsenic and other heavy metals like Phosphates, Uranium, Selenium, Zinc, lead, Cadmium, Copper, Mercury, Antimony etc.

Unique Filtration

- Nano-crystalline Filtration Media
 - Agglomerated Nano-Particles
- Dual Adsorption Mechanism; Surface Ligand Effect
 - Ion Attraction
- Migration to Pore Structure
 - Formation of $Ti(HAsO_4)_2$
- Solubility of Metal Arsenates
 $Ti(HAsO_4)_2 < Fe(HAsO_4)_2 < Al(HAsO_4)_2$
- Spent StepSorb passes EPA TCLP and CA WET protocol for non-hazardous landfill disposal
- Arsenic Selective Adsorption Capacity
- High Surface Area and Pore Properties Contribute to Increased Adsorption Capacity Improved Selectivity for Arsenic.



STEPSORB - Typical Arrangement



- Can be used as an Online filter
- Arsenic below <2 micro grams/liter achieved in single pass
- Long life, 1 kg of Stepsorb can filter 40,000 liters of water
- No energy needed for filtration due to low pressure drop across media.
- Stepsorb can filter Cadmium, Chromium, Uranium, Mercury, Lead etc.

