



ArsenicCheck™ for Water Instructions

Introduction: Arsenic occurs naturally in the environment, but it is also a poison and a health hazard for humans. Arsenic has been implicated as a cause of lung cancer and skin cancer. It may contaminate well water or tap water. Arsenic is often found in ground water or mineral water in levels as high as 0.1 mg/l. In addition arsenic contamination of water can result from mining operations, semiconductor manufacturing, use of outdoor wood preservers, and pesticide application. Wells near any of these activities might be seriously contaminated and should be checked regularly.

Intended Use: ArsenicCheck™ for Water is designed to provide a convenient method for the detection of arsenic in water. ArsenicCheck™ for Water is not intended to provide quantitative test results. However under the conditions provided by ArsenicCheck™ for Water, arsenic contamination at 10 ppb and higher can be reliably detected.

Precautions: The test method provided by ArsenicCheck™ for Water requires the use of materials that are toxic. Read and follow instructions carefully! Handle all kit materials with care. Keep out of reach of children!

Contents Of ArsenicCheck™ Kit:

- Water sample collection bottle. The inside of the cap contains treated reaction paper (POISON). DO NOT TOUCH!
- Arsenic Reagent 1 (In the small blue capped vial) - contains a gray powder.
- Arsenic Reagent 2 - contains a mild acid not known to be harmful. But use with care to prevent any unwanted exposure.

Instructions:

1. Remove cap from reaction bottle and remove test reagents, taking care not to touch the reaction paper on the inside of the cap.
2. Fill bottle to the fill line with approximately 50ml of the water sample.
3. Add contents of arsenic Reagent 1 (blue capped vial) to water sample.
4. Add contents of arsenic Reagent 2 to water sample, being careful to avoid any splashing. Immediately recap the bottle and tightly screw the cap closed.
5. Gently swirl (DO NOT SHAKE) liquid to mix. The treated reaction paper in the cap must remain dry. Be sure NOT to splash any water onto the bottle cap.
6. After 30 minutes, remove the cap from the bottle and check the reaction paper. A yellow to brown color means the test is positive. Arsenic is present in excess of 10ppb.
7. After completing the test, immediately wash the test solutions down the drain where no contact with food or cutlery and crockery is possible. Flush the drain with plenty of water and immediately wash your hands.

Interpretation: Arsenic can be present in water in 2 ionic forms designated arsenic III or arsenic V. Both forms are toxic. The reaction paper provided in ArsenicCheck™ for Water reacts readily with the arsenic III ion. During the 30 minute reaction time arsenic V ions are converted to arsenic III ions and turn the reaction paper brown.

In general, the higher the arsenic content, the darker the color developed on the reaction paper. A very pale yellow indicates arsenic content of approximately 10 ppb (parts per billion). A yellow/orange color indicates arsenic content in the 100 - 200ppb range while chocolate brown indicates arsenic content in excess of 500ppb.

Safety Precautions:

1. KEEP OUT OF REACH OF CHILDREN! Be sure to store the test kits so that they cannot fall into the hands of children. Point out the safety precautions to young people.
2. Avoid contact of all test reagents with the skin and eyes. DO NOT TOUCH the reaction paper located on the inside of the bottle cap. After the test, wrap the used cap in a plastic bag before disposal.
3. ArsenicCheck™ Reagents should be handled with care. If any reagent contacts your skin or clothing rinse immediately in cold water. If this liquid comes in contact with your eyes, flush immediately with copious amounts of water and contact your physician.

Storage: Best when stored in a cool, dry place.

Shelf Life: Stable for 1 year.

Warranties: ArsenicCheck™ for Water provides a convenient method of screening water for arsenic contamination. This test is a presumptive test and should not be considered quantitative. Under controlled laboratory conditions, ArsenicCheck™ for Water will reproducibly detect arsenic in water at 10 ppb and higher. Use of this test is not intended to replace quantitative testing. No guarantees are intended or implied.

Liability: The manufacturer assumes no liability for the misuse of ArsenicCheck™ for Water or for the interpretation of results by the user.