The Easy Well Water Test Kit gives you professional results fast and easy in your own home. Please follow instructions on the test kit cards carefully for best results!

See “Ideal Range” column below. Your tests should fall within these Ideal Range parameters and your water may require some treatment if it falls outside the range below.

Keep away from children. Do not ingest. Wash hands thoroughly after water testing.

Please note, these water tests and test kits are for educational purposes only, and to help diagnose aesthetic water quality problems. If you suspect your water is contaminated or is causing health problems consult with your local health dept. and have testing done at a State certified laboratory.

Allow water to run from tap for 4-5 minutes and follow enclosed instructions. Rinse the test bottle thoroughly with the water to be tested between each of the tests. Instructions are included with each test.

Vial with blue cap is used for the Manganese, Sulfate, Hydrogen Sulfide & pH Tests.

Check page 5-8 for safety datasheet before proceeding

<table>
<thead>
<tr>
<th>Test Date___________</th>
<th>Range</th>
<th>Ideal Range</th>
<th>Your Results Here</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkalinity</td>
<td>0 - 240 ppm</td>
<td>20 - 200 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>0 - 3.0 ppm</td>
<td>Less than 1.3 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorine</td>
<td>0 - 5.0 ppm</td>
<td>Less than 2.0 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardness</td>
<td>0 - 425 ppm</td>
<td>50 - 150 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>0 - 3.0 ppm</td>
<td>0 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>0 - 5.0 ppm</td>
<td>0 - 3 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese</td>
<td>.05 - 1.0 ppm</td>
<td>0 - .05 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrate</td>
<td>0 - 50 ppm</td>
<td>Less than 10 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrite</td>
<td>0 - 10 ppm</td>
<td>Less than 1.0 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>4 - 12</td>
<td>7 - 8.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfate</td>
<td>0 - 500 ppm</td>
<td>0 - 250 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>0 - 999 ppm</td>
<td>0 - 500 ppm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does cold well water have rotten-egg sulfur odor? Does hot water have rotten-egg sulfur odor?

Check toilet flush tank: (Rust? Sediment in bottom? Color of Sediment? Bubbly or frothy?)

Questions? Enter your results online, visit http://www.cleanwaterstore.com/test-results/.

We will respond within 1-2 days with a recommendation or any questions that need to be clarified.

Have Questions? Fill Out Online Form and Get Feedback from one of our WQA Certified Water Specialists. https://www.cleanwaterstore.com/test-results/
**Coliform Bacteria Test**

**Test Procedure:**

**Preparation:**
1. Wash hands thoroughly with soap and water. Remove faucet aerator if possible and run water for several minutes to make sure the water being tested is from the well itself and not plumbing.

**DO NOT TOUCH INSIDE OF CAP OR BOTTLE OPENING**

2. Carefully remove bottle cap then fill with 100 mL of water sample (about 1/2” below neck of bottle).

**DO NOT OVERFILL**

3. Securely recap bottle and shake vigorously until all media has dissolved. Solution should be clear yellow in color (a bit less clear with turbid samples)

4. Incubate sample for 24 hours and up to 48 hours at temperatures between 25°C/77°F and 35°C/95°F

**Coliform Confirmation**

5. After 24 or 48 hours observe color of sample

- **Clear yellow** = Negative for coliforms
- **Green** = Positive for coliforms

**E. Coli Confirmation**

6. Shine a UV light (approx. 365nm) from bottom of sample. (UV OPTIONAL - Not Included)

- **Avoid looking directly at light**

- **Green** = Negative for E.coli bacteria
- **Blue** = Positive for E.coli bacteria

7. If positive for either test, add teaspoon of household bleach to sample and then pour down toilet.

What it means:

If your well water tests positive for coliform bacteria, this is a sign it is being contaminated from surface runoff or septic tanks.

This is a potential health threat and you should not use the water until it is fixed.

Consult with a professional well driller or contractor to do an inspection of your well to make sure it is safe.

Consider shock chlorinating the well and sanitize piping and fixtures, wait two weeks or until the chlorine residual is gone and re-test for coliform bacteria.

FALSE POSITIVES are common and can be a result of contaminated faucets, or the way the sample was taken.

For best results wash hands before doing the test and avoid touching the inside of the cap or bottle.

Some professionals recommend sanitizing the exterior of fixture you are taking the sample from with alcohol or flaming it with a lighter.

When taking the sample, run the water for several minutes and leave the cap on the test bottle.

While the water is running, remove the cap, fill the bottle and put cap back on.

In other words, do not remove the cap from the test bottle and leave exposed to air for more than a few moments if possible to avoid false contamination from air and dust.

Not sure of the results, or the test kit is not working for you? Email us at support@cleanwaterstore.com and we will assist you. If needed, you can also mail us a sample of the water and we will test it in our lab for you.
**Hardness Test (Drops)**
1. Rinse & fill the vial with red cap with 15 mL of water
2. Add two drops of Hardness A solution & swirl
3. Add Hardness B solution drop. After each drop, count and swirl to mix until color changes red to permanent blue
4. Calculate Hardness*
   
   *Multiply # of drops by 17.1 to determine hardness in parts per million

**EXAMPLE:** 10 drops x 17.1 = 171 ppm

**Alkalinity/pH/Hardness Test Strip**
1. Rinse then fill vial with white cap to the top with water
2. Remove test strip & card from packet marked ALK/pH/Hard

**DO NOT TOUCH PAD**
3. Dip strip in water for 1 second then remove
4. Hold test strip level and wait 10 seconds
5. Compare with color chart on instruction card

**NOTE:** Your kit includes an additional pH test kit, and hardness test kit, that use drops. This is more accurate and allows you to test many times for pH and hardness.

**pH Test (Drops)**
1. Fill vial with blue cap with 5 mL of water
2. Add 5 drops of pH reagent
3. Compare color with chart on instruction card

The pH of the water is a measure of how acidic or alkaline it is. pH is measured on a scale from 1 to 14. 7 is neutral, and generally you want to have a neutral pH, between 7 and 8 pH.

If your pH is less than 7, it can be considered to be acidic and might corrode your pipes and fixtures.

To get an accurate pH measurement, be sure to do the pH immediately after you take the water sample. The pH can rise if the water is exposed to air, so to get an accurate measurement, take the test right away.

**Alkalinity in our water is approximately 20-200 PPM.**

Alkalinity is a measure of the capacity of water to neutralize acids or hydrogen ions. Alkalinity can sometimes be refereed as "Carbonate hardness". Alkalinity acts as a buffer if any changes are made to the water’s pH value. The Alkalinity in the water will help keep the water’s pH stabilized.

Some alkalinity is good to have in our water because it keeps the water from being corrosive. Alkalinity is basically dissolved minerals in the water that help neutralize the water we drink.

The amount of Alkalinity that should be in our water is approximately 20-200 PPM.

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Some alkalinity is good to have in our water because it keeps the water from being corrosive. Alkalinity is basically dissolved minerals in the water that help neutralize the water we drink.

**Hardness in well water is typically calcium carbonate, from limestone minerals.**

A good hardness level for homes is 1 to 8 grains per gallon. High levels of hardness will cause white scale to form on fixtures and prematurely wear out water heaters and appliance. Hardness can be removed by installing a water softener.

*For health and safety concerns, please refer to page 7-8 for the Material Safety Data Sheet.*
Hydrogen Sulfide Test

1. Fill vial with blue cap with 5 mL of water
2. Dip test strip into a water sample for 20 seconds with a gentle, steady up and down motion
3. Place instruction card color chart on a flat surface
4. Viewing from the top, slide vial from one white circle to the next until best color match is found
5. Flush waste water down drain

Hydrogen sulfide in water causes a ‘rotten-egg’ or sulfur odor. A good test result should be below 0

Very low levels can cause objectionable odors and tastes in water.

It may be present in the cold well water, or it may only be present in your hot water.

High levels can cause health problems and corrosion of pipes and fixtures.

Iron Test

1. Rinse then fill vial with white cap to the top with water
2. Remove iron reagent tablet from foil packet and place in vial
3. Place cap on vial then shake until tablet completely disintegrates then remove cap
4. Remove iron test strip from foil package.
   **DO NOT TOUCH PAD**
5. Immers test strip for 2 seconds
6. Shake **ONCE** to remove excess water then wait 60 seconds
7. Compare color to color chart on instruction card then record results

Iron in well water should be 0.3 PPM or less.

Higher levels of iron causes staining of fixtures and can impart a rusty taste to drinking water.

Water that is high in iron may appear clear at first, and then turn to yellow or rust color after it has been exposed to air.

Manganese Test

1. Fill included 60 mL vial with about 25 mL of sample
2. Add Citrate Buffer reagent, swirl to mix
3. Add Sodium Periodate reagent, swirl to mix
4. Allow to stand undisturbed for 2 minutes, read within 8 minutes
5. Place vial next to Mn Chart and look down the vial from top to bottom to compare

*NOTE: You will need to swirl vigorously in order to get accurate results*

*CAUTION: DO NOT Ingest and avoid contact with eyes and skin. Keep out of reach of children and pets. For health and safety concerns, please refer to page 5 of the Material Safety Data Sheet*

Manganese in well water should be 0.05 PPM or less.

Higher levels of manganese causes black or brown or tea-color staining of fixtures and can affect the taste of drinking water.

Similar to iron, water that is high in manganese may appear clear at first, and then turn to brown or black after it has been exposed to air.

For the full Material Safety Data Sheet, visit [http://sds.hach.com/private/search.aspx](http://sds.hach.com/private/search.aspx)

Part Number: 2107669 (Citrate Buffer)
Part Number: 2107769 (Sodium Periodate)
Easy Well Water Test Kit Instructions Rev 03282019 Questions? support@cleanwaterstore.com or call 888-600-5426

Sulfate Test

1. Fill vial with the blue cap with 5 mL of water
2. Dip test strip into a water sample for 10 seconds with a constant but gentle back and forth motion
3. Remove strip, shake briskly then wait for 20 seconds
4. Compare color with chart on card within 20 seconds

High concentrations of sulfate in the water we drink can have a laxative effect when combined with calcium and magnesium, the two most common constituents of hardness. Basically sulfate in water, makes "Epsom salts", which is magnesium sulfate and can be a powerful laxative.

Nitrate should be less than 10 PPM, and nitrate less than 1.0 PPM. If your water tests positive for nitrate, it usually means contamination of your well from agricultural run-off (fertilizers) or could be contamination from leaking septic tanks nearby. Nitrate is a health threat, especially for infants and pregnant mothers and livestock.

Sulfates also can cause "rotten-egg" sulfur odors in both cold but especially hot water.

Total Chlorine/Copper/Nitrate/Nitrite Test Strip

1. Rinse then fill the vial with the white cap to the top with water
2. Remove test strip from packet marked CL/CO/NA/NI
3. Dip strip in water, swirl strip 3 times and remove. DO NOT SHAKE EXCESS WATER
4. Hold test strip level for 2 seconds then IMMEDIATELY compare test strip color with chlorine color chart
5. Next compare color with copper test and after a total of 45 seconds, compare color with nitrate/nitrite color chart. Test result expires 2 minutes from start

Chlorine levels will only be present if your water is chlorinated, and should be less than 2.0 PPM.

Copper levels should be 0, or at least less than 1.0. If you detect copper in your water, this likely means there is corrosion of your pipes occurring.

Chlorine, Copper, Nitrate and Nitrite.

TDS Meter

How to Use It:

1. Fill a clean glass with 1/2 of water, or enough to be able to submerge the end of the TDS meter by 1-2 inches.
2. Turn on, remove cap then place TDS meter in water for approx. 10 seconds
3. Read meter then record results on your sheet.

TDS stands for "Total Dissolved Solids".

TDS is a measurement of how much dissolved solids, usually salts and minerals, are in your well water.

Generally you want the TDS to be in the range of 1 to 200 PPM for drinking water, and up to 500 PPM for household use.

Over 500, and especially over 1000 PPM of TDS can cause white spotting, corrosion, and often give water an alkaline taste.
# SAFETY DATA SHEET

## 1. Identification

**Product identifier:**

- **Product Name:** Buffer Powder Dose Type
- **Other means of identification:**

- **Product Code:** 210769

**Recommended use of the chemical and restrictions on use:**

- **Recommended use:** Laboratory use. Desalination of raw water.

**Details of the supplier of the safety data sheet:**

- **Manufacturer Address:** Hach Company P.O. Box 589 Loveland, CO 80539 USA +1 (970) 969-8390
- **Emergency telephone number:** +1(303) 823-5716 - 24 Hour Service

## 2. Hazards Identification

**Classification:**

- **Inhalation hazard:** Category 2 - R36/37/38
- **Other health hazards:** Category 2 - H335

**Label elements:**

- **Signal word:** Warning

**Hazard statements:**

- **P280:** Wear/Nothing to the eyes/Respiratory protection/Protective clothing/Protective gloves/Protective equipment
- **P261:** Keep out of reach of children
- **P338:** Rinse with water for several minutes. Remove contact lenses, if present and easy to remove.
- **P335:** If in eyes, rinse gently with water
- **P301:** IF SWALLOWED: Rinse mouth
- **P312:** IF IN EYES: Rinse cautiously with water for several minutes.
- **P313:** IF IN EYES: Remove contact lenses, if present and easy to remove.
- **P333:** Rinse with water for several minutes.

**Other hazards/risks:** Not applicable

## 3. Composition/information on ingredients

**Substance:**

- **Not applicable.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Synonyms</th>
<th>Percent range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>7644-41-7</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Citric acid</td>
<td></td>
<td></td>
<td>18 - 36%</td>
</tr>
</tbody>
</table>

## 4. First aid measures

**Description of first aid measures:**

### General advice

Show this safety data sheet to the doctor in attendance.

### Inhalation

- **Remove from fresh air.**
- **Medical attention:** If symptoms occur.

### Eye contact

- **Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.**
- **Keep eye wide open while rinsing.**
- **Remove contact lenses, if present and easy to do.**
- **Continue rinsing.**
- **Get medical attention if irritation develops and persists.**
- **Do not rub affected eye.**

### Skin contact

- **Wash if immediately with soap and plenty of water for at least 15 minutes.**
- **Get medical attention if irritation develops and persists.**

### Ingestion

- **Clean mouth with water and plenty of water after plenty of water.**
- **Never give anything by mouth to an unconscious person.**
- **Do not induce vomiting.**

**Self-protection of the first aider:**

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). **Most important symptoms and effects, both acute and delayed:**

**Symptoms:**

- **Indication of any immediate medical attention and special treatment needed:**
- **Note to physicians:**

## 2. Hasards identification

**Classification:**

- **Inhalation hazard:** Category 2 - R36/37/38
- **Other health hazards:** Category 2 - H335

**Label elements:**

- **Signal word:** Danger

**Hazard statements:**

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- **P313:** IF IN EYES: Remove contact lenses, if present and easy to remove.
- **P333:** Rinse with water for several minutes.

**Other hazards/risks:** Not applicable

## 3. Composition/information on ingredients

**Substance:**

- **Chemical Family:** Bleaching Agents.
- **Formula:** NaN

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Synonyms</th>
<th>Percent range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodic acid</td>
<td>790-28-3</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

## 4. First aid measures

**Description of first aid measures:**

### General advice

Show this safety data sheet to the doctor in attendance.

### Inhalation

- **Remove from fresh air.**

### Eye contact

- **Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.**
- **Keep eye wide open while rinsing.**
- **Do not rub affected eye.**

### Skin contact

- **IF ON CLOTHING:**
- **Rinse immediately contaminated clothing and skin with plenty of water before removing clothing.**
- **If on Skin:**
- **Wash with plenty of soap and water.**
- **If contaminated clothing before reuse.**

### Ingestion

- **Do not induce vomiting.**
- **Clean mouth with water and plenty of water after plenty of water.**
- **Never give anything by mouth to an unconscious person.**
- **Get medical attention.**

**Self-protection of the first aider:**

Ensure that medical personnel are aware of the material(s) involved, take precautions to