

Easy Well Water Test Kit Pro & Bacteria Instructions



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 in each of the tests. Instructions are included with each test.

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

Check page 6-9 for safety datasheets before proceeding

Test Date _____	Range	Ideal Range	Your Results Here	Notes
Coliform Bacteria	+/-	Negative		
Alkalinity	0 - 240 ppm	20 - 200 ppm		
Hardness	0 - 425 ppm	50 - 150 ppm		
pH	4-12	7-8.5		
Total Dissolved Solids	0 - 999 ppm	0 - 500 ppm		
Iron	0 - 5.0 ppm	0 - 0.3 ppm		
Manganese	.05 - 1.0 ppm	0 - .05 ppm		
Nitrate	0 - 50 ppm	Less than 10 ppm		
Nitrite	0 - 10 ppm	Less than 1.0 ppm		
Chlorine	0 - 5.0 ppm	Less than 2.0 ppm		
Copper	0 - 3.0 ppm	Less than 1.3 ppm		
Sulfate	0 - 500 ppm	0 - 250 ppm		
Hydrogen Sulfide	0-3.0ppm	0 ppm		

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

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

Questions? Enter your results online; **Fill Out Our Online Form and Get Feedback from one of our WQA Certified Water Specialists.** visit <http://www.cleanwaterstore.com/test-results/>.

We will respond within 1-2 business days with water treatment recommendations or to aid with any questions or results that need to be clarified.

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.

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

Hardness Test (Drops)

1. Rinse & fill the vial with red cap with 5 mL of water
2. Add two drops of Hardness A solution & swirl; upon contact with hard water the blue solution is observed to turn red.
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

Hardness

The amount of Alkalinity that should be 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 referred 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 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.

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 ***

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.

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. Immerse 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

Manganese Test

1. Fill included 60 mL vial with about 25 mL of sample, about halfway.
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 however undissolved reagent does not have an effect on test accuracy *

***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 for the Material Safety Data 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.

Please refer to the meter’s pamphlet for more instructions

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.

If your Iron or Manganese test appears inconclusive, consider sending in samples to our in house lab to ensure accurate testing.

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>

Part Number: 2107669 (Citrate Buffer)

Part Number: 2107769 (Sodium Periodate)

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

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

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
2. Remove and then discard strip
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

This strip measures for Chlorine, Copper, Nitrate and Nitrite.

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.

Nitrate should be less than 10 PPM, and nitrite 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.

Sulfate levels should be less than 250 PPM.

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.

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

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.



SAFETY DATA SHEET

Issue Date 23-Jan-2019 Revision Date 25-Jan-2019 Version 1.4

1. Identification

Product Identifier

Product Name Buffer Powder Citrate Type

Other means of identification

Product Code(s) 2107669

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Determination of manganese.

Details of the supplier of the safety data sheet

Manufacturer Address
Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

Emergency telephone number

Emergency Telephone +1(303) 623-5716 - 24 Hour Service

2. Hazards identification

Classification

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2A - (H319)
Acute aquatic toxicity	Category 3 - (H402)

Label elements

Signal word - Warning

Hazard statements

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H402 - Harmful to aquatic life



2107669 - Buffer Powder Citrate Type

Revision Date 25-Jan-2019

Exclamation mark

Precautionary statements

P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P273 - Avoid release to the environment
P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards Known

Not applicable

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Synonyms	Percent Range
Sodium phosphate dibasic	7558-79-4	No information available	50 - 60%
Sodium sulfate	7757-82-6	No information available	30 - 40%
Citric acid	77-92-9	2-hydroxypropane-1,2,3-tricarboxylic acid	10 - 20%

4. First aid measures

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air. Get medical attention immediately 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 area.

Skin contact

Wash off 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 drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

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

Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.



Be Right™

SAFETY DATA SHEET

Issue Date 07-Oct-2018

Revision Date 08-Jan-2019

Version 1.3

1. Identification

Product Identifier

Product Name Sodium Periodate

Other means of identification

Product Code(s) 2107769

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory Use.

Details of the supplier of the safety data sheet

Manufacturer Address
Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

Emergency telephone number

Emergency Telephone +1(303) 623-5716 - 24 Hour Service

2. Hazards identification

Classification

Oxidizing solids	Category 2 - (H272)
Acute toxicity - Oral	Category 3 - (H301)

Label elements

Signal word - Danger

Hazard statements
H272 - May intensify fire; oxidizer
H301 - Toxic if swallowed

2107769 - Sodium Periodate

Revision Date 08-Jan-2019



Flame over circle
Skull and crossbones

Precautionary statements

P270 - Do not eat, drink or smoke when using this product
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P220 - Keep away from clothing and other combustible materials
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Other Hazards Known

Not applicable

3. Composition/information on ingredients

Substance

Chemical Family Oxidizing Agents.

Formula NaIO₄

Chemical name	CAS No.	Synonyms	Percent Range
Periodic acid (HIO ₄), sodium salt	7790-28-5	No information available	100%

4. First aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to 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 area.

Skin contact IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards 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

Material Safety Data Sheet

Hardness Solution A

Ningbo EnjoyWater Pool Products CO., LTD

No. 64, Jishi West Road, Jishigang Town, Yinzhou District, Ningbo City, China

TEL: ++86-574-27868977 FAX: ++ 86-574-27868969

E-MAIL: enjoywater@poolchina.com WEB: www.poolchina.com

1. Product Identification

Synonyms: Mordant Black T dissolves in Ethanol :

CAS No. :

Molecular Weight:

Chemical Formula:

2. Composition/Information on Ingredients

Ingredient Hazardous	CAS No	Percent
Mordant Black T	1787-61-7	0.2 %
Ethanol	64-17-5	80%
Triethanolamine	102-71-6	20%

3. Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

Health Rating: 1 - Slight

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT

Storage Color Code: Orange (General Storage)

Potential Health Effects

Information on the human health effects from exposure to this substance is limited.

Inhalation:

May cause irritation to respiratory tract resulting in coughing and sneezing.

Ingestion:

Ingestion effects have not been studied completely but may exhibit symptoms similar to phenolphthalein, such as an itching skin rash. May be a strong laxative.

Skin Contact:

May cause irritation with redness and pain.

Eye Contact:

May cause irritation and pain.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at

Material Safety Data Sheet

Hardness Solution B

Ningbo EnjoyWater Pool Products CO., LTD

No. 64, Jishi West Road, Jishigang Town, Yinzhou District, Ningbo City, China

TEL: ++86-574-27868977 FAX: ++ 86-574-27868969

E-MAIL: enjoywater@poolchina.com WEB: www.poolchina.com

1. Product Identification

Synonyms: None

CAS No. : 139-33-3

Molecular Weight: 372.24

Chemical Formula: C10H14N2Na2O8 . 2H2O

Product Codes: 5632

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
EDTA Disodium Salt	139-33-3	5%	Yes
Water	7732-18-5	95%	No

3. Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE IRRITATION TO SKIN AND EYES.

SAF-T-DATASM Ratings (Provided here for your convenience)

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:

No adverse health effects via inhalation.

Ingestion:

Substance has low toxicity by ingestion. Large amounts may cause gastric upset due to osmotic imbalance through the sequestering of metal ions.

Skin Contact:

May cause irritation with redness and pain.

Eye Contact:

May cause irritation, redness and pain.

Chronic Exposure:

No adverse health effects expected.

Aggravation of Pre-existing Conditions:

No adverse health effects expected.

4. First Aid Measures

Inhalation:

Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Not expected to require first aid measures. If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.
