

# Test Kit for Water Hardness

## Self Food Quality Care

In freshwater, the principal hardness causing ions are calcium and magnesium. Groundwater is generally harder than surface water. The taste threshold for the calcium ion in drinking water varies from 100 to 300 mg/litre, for magnesium ion the taste threshold is less. According to the related Notification of the Ministry of Public Health, the limit for hardness in bottled drinking water is 100 mg/litre. This test kit for hardness in water is developed to be used outside laboratory. The result will be obtained in a few minutes with reliable accuracy.

## Target Sample

Bottled drinking water, tap water, ground water, water from other sources.

## Number of Tests / Kit

30 Tests

## Sensitivity of Test Kit

Detection limit 1.0 mg/litre

## Test Kit Tool

- 1 Plastic cup
- 1 Syringe (10 cc.)
- 1 Syringe (2.5 cc.)
- 1 bottle of hardness reagent 1
- 1 bottle of hardness chemical power 2
- 1 bottle of hardness reagent 3
- 1 small-size plastic spoon
- 1 dropper
- 1 sheet of testing instruction

## Procrdure

1. Draw 10cc. Of water sample into plastic cup.
2. Add 3-4 drops of hardness reagent 1, shake well.
3. Add small amount of hardness chemical powder 2 in the sample cup, shake until chemical powder is completely dissolved. The color of the solution is purple.
4. Add hardness reagent 3, drop by drop until the color changes to blue. If with 3 cc. Of hardness reagent 3, the color is still unchanged, stop the test. Read the result from the table.

## Evaluation

Interpretation Table

Quantity of hardness Reagent3	Color of the solution	Hardness mg/ litre
1 drop	Blue	0
1 cc.	Blue	Less than 100
	Purple	More than 100
3 cc.	Blue	Less than 300
	Purple	More than 300

## Precaution

Keep the testing kit out of reach from children.

## Keeping / Age

The test kit is valid for 6 months if kept in refrigerator