

Reagents

[Dechlorinating Reagent **A009**]

Calcium Hardness Reagent Pack **RGPK005** - includes:

Calcium Hardness Tablets **AT003**

Calcium Hardness Buffer **A005**

Hardness Titrant **A010**

Method

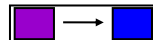
1. Filter the sample if necessary and select an appropriate sample size based on the required PPM per drop of Hardness Titrant as follows:

Sample size	PPM per drop
5ml	80ppm
10ml	40ppm
20ml	20ppm
40ml	10ppm
80ml	5ppm

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5ml	80ppm
10ml	40ppm
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80ml	5ppm

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2. If chlorine or bromine is in use add 10 drops of Dechlorinating reagent
3. Add 10 drops of Calcium Hardness Buffer per 20ml of sample (minimum 10 drops) and 1 Calcium Hardness Indicator Tablet. Crush and swirl to dissolve.
4. Moisten and wipe the tip of the Hardness Titrant dropper to ensure it is clean and then add one drop at a time to the sample (counting the number of drops) until the colour changes from scarlet to royal blue.



5. Calculate the Calcium Hardness using the following formula:

$$\text{Ca Hardness} = \text{Total No. of drops at Step(4)} \times \text{PPM per drop for sample size}$$

Example

For a 20ml sample

$$\begin{aligned}\text{Calcium Hardness} &= \text{Number of drops} \times 20 \\ \text{Number of drops of Hardness Titrant} &= 18 \\ \text{Calcium Hardness} &= 18 \times 20\text{ppm} \\ &= 360\text{ppm (as CaCO}_3\text{)}\end{aligned}$$

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