



ENVIKIT GH – Ca - Mg

ENVIKIT 12GH-Ca-Mg
($\approx 2 \times 100$ tests)



- Thank you for choosing products of Binh Lan ENVIBIOCHEM. Please read instruction manual carefully before proceeding to ensure accurate results.
- Reagents contain base. In case of contact, immediately flush skin with plenty of water.



- 1.** Clean a tube and a glass bottle with clean water. Fill up the tube with sample water and transfer water to the glass bottle.



- 2.** Add 4 drops of the Reagent 1. Swirl to mix.



- 3.** Add 1-2 spoons of the Reagent 2. Swirl to mix. Water turns violet-pink.



- 4.** Slowly add the Reagent 3 dropwise, swirling to mix after each drop while counting number of drops until a blue end point. The number of drops in this step is designated as "a".

- 5.** Repeat the step 1.
6. Add 4 drops of the Reagent 4. Swirl to mix.
7. Clean the spoon with a dry tissue. Add 1-2 spoons of the Reagent 5. Swirl to mix. Water turns violet-pink.
8. Slowly add the Reagent 3 dropwise, swirling to mix after each drop while counting number of drops until a blue end point. The number of drops in this step is designated as "b".

$$\text{Ca (mg/l)} = b \times 40 \quad (1)$$

$$\text{Mg (mg/l)} = (a - b) \times 24 \quad (2)$$

$$\text{General Hardness GH (mg/l)} = a \times 100 \quad (3)$$

Example: $a = 24, b = 4$. $\text{Ca} = 4 \times 40 = 160 \text{ mg/l}$; $\text{Mg} = (24 - 4) \times 24 = 480 \text{ mg/l}$. $\text{GH} = 24 \times 100 = 2400 \text{ mg/l}$.

- Fill 2 tubes of sample water in both the steps 1 and 5 in the case of a or b is less than 4. To calculate Ca, Mg, and GH by the expressions (1), (2), (3), then 2 divide the getting by 2. Example 2: $a = 24, b = 4$. $\text{Ca} = (4 \times 40) : 2 = 80 \text{ mg/l}$; $\text{Mg} = (24 - 4) \times 24 : 2 = 240 \text{ mg/l}$. $\text{GH} = 24 \times 100 : 2 = 1200 \text{ mg/l}$.
- Salinity of a sample water is higher than 15 ‰: fill the test bottle with 3 ml of water. To calculate Ca, Mg, GH by the expressions (1), (2), (3), then multiply the getting by 2. Example 2: $a = 24, b = 4$. $\text{Ca} = (4 \times 40) \times 2 = 320 \text{ mg/l}$; $\text{Mg} = (24 - 4) \times 24 \times 2 = 960 \text{ mg/l}$. $\text{GH} = 24 \times 100 \times 2 = 4800 \text{ mg/l}$.
- Keep the droppers vertically while dropping. Release pressing after each 6 drops.
- Wash the test bottle and measuring tube by clean water. Dry, and store in the box for the next test.

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