



KYORITSU

# PACKTEST INSTRUCTIONS

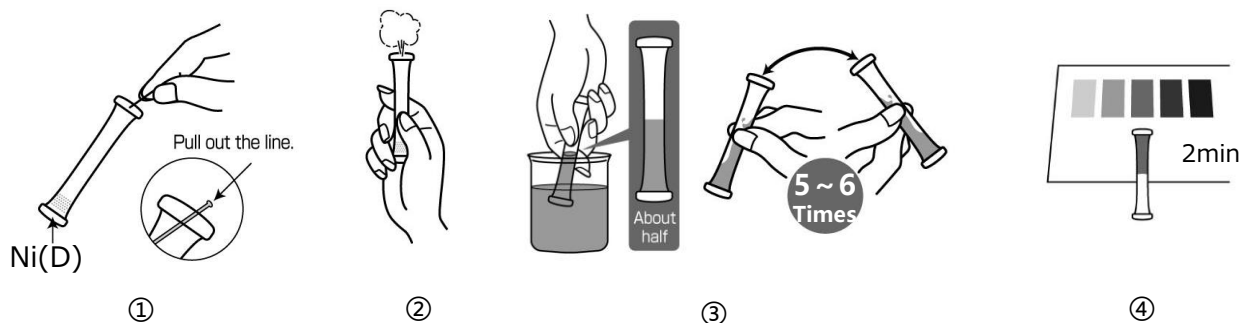
## Nickel (DPM)

Model: WAK-Ni(D)

### Nioxime Visual Colorimetric Method

Measuring Range: 0.3-10 mg/L(ppm)

### How to Use



- ① Remove the colored line at the top of the tube to clear the aperture.
- ② Press the tube's side wall to expel air and hold the tube.
- ③ Immerse the aperture of the tube into the sample, release the finger to fill up the tube halfway. Invert the tube back and forth lightly for 5-6 times.
- ④ After 2 min, place the tube on the provided Color Sheet as shown to compare the color.

### How to Read the Result

After the reaction time, compare the color of the tube with Standard Color. The nearest color indicates the concentration value of the analyte in your sample. A color between two standard colors indicate the value between them.

### Handling of PACKTEST Before and After Use

#### First Aid

**Eye Contact** → Immediately flush eyes with plenty of water.

**Skin/Cloth Contact** → Immediately flush contacted area with water.

**Ingestion** → Immediately rinse mouth.

If swallowed the content or any symptom appears, seek medical advice immediately.

Please refer to SDS for further information.

#### Storage

Use PACKTEST tubes as soon as possible after opening the laminated package.

#### Disposal

For business use, please follow in the manner consistent with relevant laws and regulations. Otherwise, the tube can be disposed as combustible waste.

## PACKTEST Nickel(DPM)

### Caution

1. This product allows to measure divalent nickel ion ( $\text{Ni}^{2+}$ ) in the sample. If the value including turbidity, precipitation, and complex are required, please dissolve them prior to use.
2. The optimum pH upon reaction will be around 4. If the pH of the sample exceeds 4-9, please neutralize with dilute sodium hydroxide solution or dilute sulfuric acid prior to measurement.
3. A nickel standard solution of 100 mg/L develops a color equal to or greater than the standard color, but a nickel standard solution of 200 mg/L or higher causes a red precipitate and fades color. If high concentrations are expected, dilute in advance before measurement.
4. Keep the sample temperature between 15-40°C. If the sample temperature is low, it requires longer reaction time.
5. Ensure that the PACKTEST tube is filled up to half.
6. Partially undissolved reagent will not affect the measurement.
7. When comparing to the Standard Color, please be sure to read under the daylight. It may be difficult to determine the color under the direct sunlight, certain florescent lights, mercury lamp or LED.
8. You can put the line back into the aperture to seal. This will avoid possibility of spilling the content of the tube.

### Interference

Standard Color is prepared based on the standard solution. If there are some coexisting substances that may cause interference, please compare the result with official method or standard addition method for verification. Below is the list of interference data for a color development when adding each of the single substances to the standard solution.

|                        |                 |                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $\leq 1000\text{mg/L}$ | will not affect | ... $\text{Al}^{3+}$ , $\text{B(III)}$ , $\text{Ba}^{2+}$ , $\text{Ca}^{2+}$ , $\text{Cl}^-$ , $\text{F}^-$ , $\text{I}^-$ , $\text{K}^+$ , $\text{Mg}^{2+}$ , $\text{Mn}^{2+}$ , $\text{Mo(VI)}$ , $\text{Na}^+$ , $\text{NH}_4^+$ , $\text{NO}_2^-$ , $\text{NO}_3^-$ , $\text{PO}_4^{3-}$ , $\text{SO}_4^{2-}$ , $\text{Zn}^{2+}$ , Anionic surfactant, Phenol |
| $\leq 500\text{mg/L}$  | "               | ... Residual Chlorine                                                                                                                                                                                                                                                                                                                                             |
| $\leq 100\text{mg/L}$  | "               | ... $\text{Cr}^{3+}$                                                                                                                                                                                                                                                                                                                                              |
| $\leq 50\text{mg/L}$   | "               | ... $\text{Fe}^{3+}$                                                                                                                                                                                                                                                                                                                                              |
| $\leq 10\text{mg/L}$   | "               | ... $\text{Co}^{2+}$ , $\text{Cr(VI)}$                                                                                                                                                                                                                                                                                                                            |
| $\leq 5\text{mg/L}$    | "               | ... $\text{CN}^-$                                                                                                                                                                                                                                                                                                                                                 |
| $\leq 3\text{mg/L}$    | "               | ... $\text{Fe}^{2+}$                                                                                                                                                                                                                                                                                                                                              |
| $\leq 1\text{mg/L}$    | "               | ... $\text{Cu}^{2+}$                                                                                                                                                                                                                                                                                                                                              |

Seawater does not affect the result.