KYORITSU PACKTEST INSTRUCTIONS

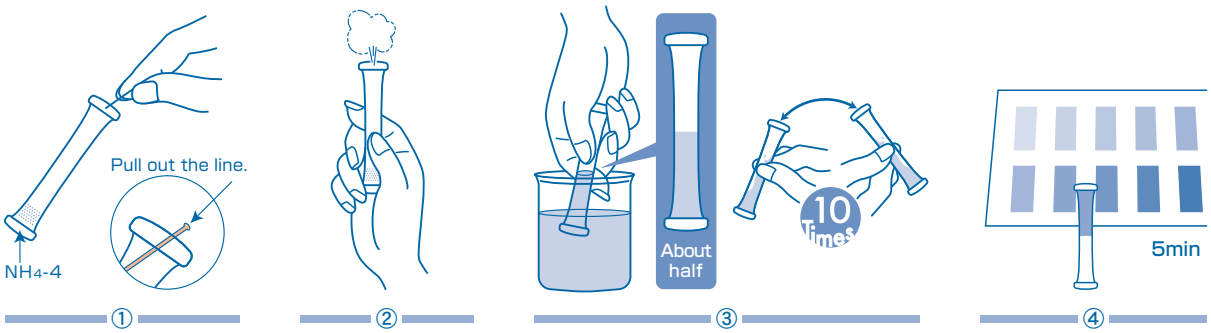
Ammonium

Model WAK−NH4−4

Indophenol Blue Visual Colorimetric Method

Measuring Range:
〈Ammonium Ion〉 NH_4^+ 0.2 - 10 mg/L(ppm)
〈Ammonium-Nitrogen〉 NH_4^+-N 0.2 - 10 mg/L(ppm)

How to Use



①Remove the colored line at the top of the tube to clear the aperture.
②Press the tube's side wall to expel the air, and hold the tube.
③Immerse the aperture of the tube into the sample, release the finger to fill the tube halfway. Invert the tube back and forth lightly for 10 times.
④Compare the actual color in the tube with either top or bottom set of provided Standard Color after 5 min.

How to Read the Result

- At 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 indicates the value between them.
- Standard color comes in two rows, but top and bottom set have same value. Please check the nearest color for the result.
- Standard color has Ammonium and Ammonium-Nitrogen printed on each side. Please use them accordingly.

Handling of PACKTEST Before and After Use

The content of the tube is Strong Alkali. Hazardous when contacting with eyes.

First Aid

Eye contact → Immediately flush eyes with water for at least 15 minutes, followed by consult with Ophthalmologist, even without any symptom.

Skin 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 Keep unused PACKTEST tubes in the provided preserving bag after opening the laminated package and use them as soon as possible. Depending on the storage condition, the reagent may deteriorate in several days especially under the hot and humid weather.

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

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PACKTEST Ammonium

Feature

This product utilizes JIS K 0102-2 13.5 indophenol blue absorbance method, and suitable for measuring sample containing relatively low coexisting substances such as river water, ground water, and drinking water. For samples containing significant amount of Fe^{2+}, Fe^{3+}, NO_2^- and other coexisting substances like septic tanks, sewage, and industrial wastewater, the color develops dark yellow to greenish hues. If this is the case, we recommend using PACKTEST Ammonium (High Range) (Model: WAK-NH4(C)-4). It is also possible to remove heavy metals and other interfering substances by distillation. Additional reagents and instruments are required for distillation.

Caution

1. This product allows to measure both Ammonium ion (NH_4^+) and Ammonium-Nitrogen (NH_4^+-N).
2. The optimum pH upon reaction will be around 13. If the pH of the sample exceeds 5-13, please neutralize with dilute sodium hydroxide solution or dilute sulfuric acid prior to measurement.
3. Using 500mg/L Ammonium standard, it develops color as same as 10mg/L or more on Standard Color, and the color will turn brown at 1,000mg/L and foams. When the value is expected to be high, please dilute the sample prior to use.
4. Keep the sample temperature between 20-30℃. 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. If the sample does not contain Ammonium, the sample color may become slightly yellow.
9. 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 acceptable level by adding each of the single substances to the standard solution.

≤1000mg/L : B(Ⅲ), Ba^{2+}, Cl^-, F^-, K^+, Mg^{2+}, Na^+, NO_3^-, PO_4^{3-}, SO_4^{2-}, Zn^{2+}, Anionic Surfactant, Residual Chlorine, Phenol
≤500mg/L : Ca^{2+}, I^-
≤50mg/L : Al^{3+}
≤20mg/L : Cr^{3+}, Cu^{2+}, Ni^{2+}
≤5mg/L : Cr(Ⅵ), NO_2^-, Formaldehyde
≤2mg/L : Mn^{2+}
≤1mg/L : Co^{2+}, Fe^{2+}, Fe^{3+}

Seawater does not affect the result.
Some chloramines and aromatic amines may cause false positive reading.

【Caution】

- This product is made for analyzing water quality purpose only. Do not use for any other purpose.
- This product contains small amount of chemicals. Please read instruction manual, GHS labels, SDS, and other necessary document thoroughly prior to use.
- Please keep this information handy for future reference.

<Safety>
- Please wash your hands thoroughly before and after the test. Do not inhale the chemical reagents.
- It is highly recommended to wear protective gloves, eye protection, and mask upon using this product.
- Avoid release chemical reagents or waste solution to the environment.

<Storage>
- Please keep this product out of reach of children. Keep it in the dry and dark place at room temperature.

<Other>
- Please check the expiration date shown on the box, and make sure to use within the date.
- Specifications are subject to change without notice.

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