



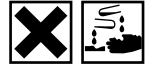
KYORITSU

**PACK TEST**  
ION SELECTIVE

INSTRUCTIONS

**Ammonium  
(High Range)**

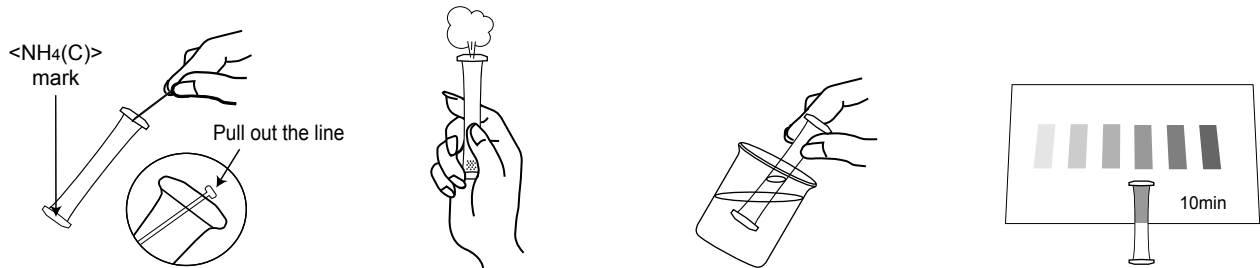
&lt;Ammonium-Nitrogen&gt;

Model WAK-NH<sub>4</sub>(C)

Harmful Corrosive

Indophenol Blue Color Comparison Method

Main reagents: Chlorinating reagent and Sodium Salicylate

Range: 0 - ≥ 20 mg NH<sub>4</sub><sup>+</sup>/L (ppm)0 - ≥ 20 mg NH<sub>4</sub><sup>+</sup>-N/L (ppm)**How to use**

- (1) Remove the line to clear the aperture from the top of the tube.
- (2) Press the sides of the tube to expel approximately half of volume. Maintain pressed.
- (3) Immerse the tube in the sample. Release the sides to fill the tube up to the half. Shake the tube 10 times.
- (4) After 10 minutes, put the tube on the color chart as shown and compare with the standard colors.

**How to read the test**

After the reaction time, compare the color of the tube with the standard colors. The nearest color indicates the measured value of the sample. A color between two standard colors indicates a value between the two standard values. According to need the ammonical nitrogen concentration can be determined on the back of the color chart.

**Care in handling of Pack Test before and after use**

Keep PACK TEST out of the reach of children.

Keep PACK TEST in a cool, dry and dark place.

PACK TEST should be thrown with burnable garbage. Conform to the legislation of waste management.

The PACK TEST reagent is a strong alkali. It is harmful and corrosive.

Use a package as soon as possible after opening.

The PACK TEST tube must not be opened before and after use.

**First Aid Measures**

Contains a strong alkali. It is harmful and corrosive to skin. Risk of serious damage to eyes.

Eye Contact → Immediately rinse eyes with water for at least 15 minutes. Consult a physician.

Ingestion → Drink a large glass of milk or water and vomit.

Skin contact → Flush skin with water.

In case of doubt, consult a physician.

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## PACK TEST Ammonium (High Range)

### Features

The Ammonium (High Range) PACKTEST is based on a color comparison of indophenol blue produced by sodium salicylate. With the Ammonium PACKTEST, ammonium ions in a sample containing few coexisting substances such as industrial waste water, cleanup tank water and so on can be measured easily.

Disturbing substances can be removed before the measurement by using the following apparatus.

Water Analysis Set: Ammonium (Low Range) (Model: WA-NH<sub>4</sub>(L)).

### Cautions

1. The ammonium PACK TEST can measure both ammonium ion (NH<sub>4</sub><sup>+</sup>) and ammonium-nitrogen (NH<sub>4</sub><sup>+</sup>-N) .
2. Adjust a pH out of the range 5 - 13 with diluted sulfuric acid or sodium hydroxide solution.
3. Ensure that PACK TEST tube is filled up to the half.
4. Partially undissolved reagent will not affect the measurement.
5. Keep sample temperature in the range 15 - 30°C. Lower temperature necessitates longer reaction time.
6. In the summer season, the PACK TEST reading can be done in 10 minutes.
7. Read the test under a daylight type lamp.
8. Put the line back into the aperture after use to prevent reagent spilt.

### Interferences

Standard colors were determined from standard solutions. However, coexisting ions can modify reaction color. The list below reports ion concentrations under which ones interferences are insignificant:

- ≤ 1000 mg/L : B (III), Ba<sup>2+</sup>, Cl<sup>-</sup>, F<sup>-</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Na<sup>+</sup>, NO<sub>3</sub><sup>-</sup>, PO<sub>4</sub><sup>3-</sup>, SO<sub>4</sub><sup>2-</sup>, Zn<sup>2+</sup>, Anionic Surfactant, Residual Chlorine, Phenol
- ≤ 500 mg/L : Ca<sup>2+</sup>, I<sup>-</sup>
- ≤ 50 mg/L : Al<sup>3+</sup>
- ≤ 20 mg/L : Cr<sup>3+</sup>, Cu<sup>2+</sup>, Ni<sup>2+</sup>, NO<sub>2</sub><sup>-</sup>
- ≤ 5 mg/L : Cr (VI), Formaldehyde
- ≤ 2 mg/L : Fe<sup>2+</sup>, Fe<sup>3+</sup>, Mn<sup>2+</sup>
- ≤ 1 mg/L : Co<sup>2+</sup>

The Ammonium (High Range) PACKTEST is suitable for sea water samples. Chloramine and Amphor amine interfere positively.