



Total Chromium

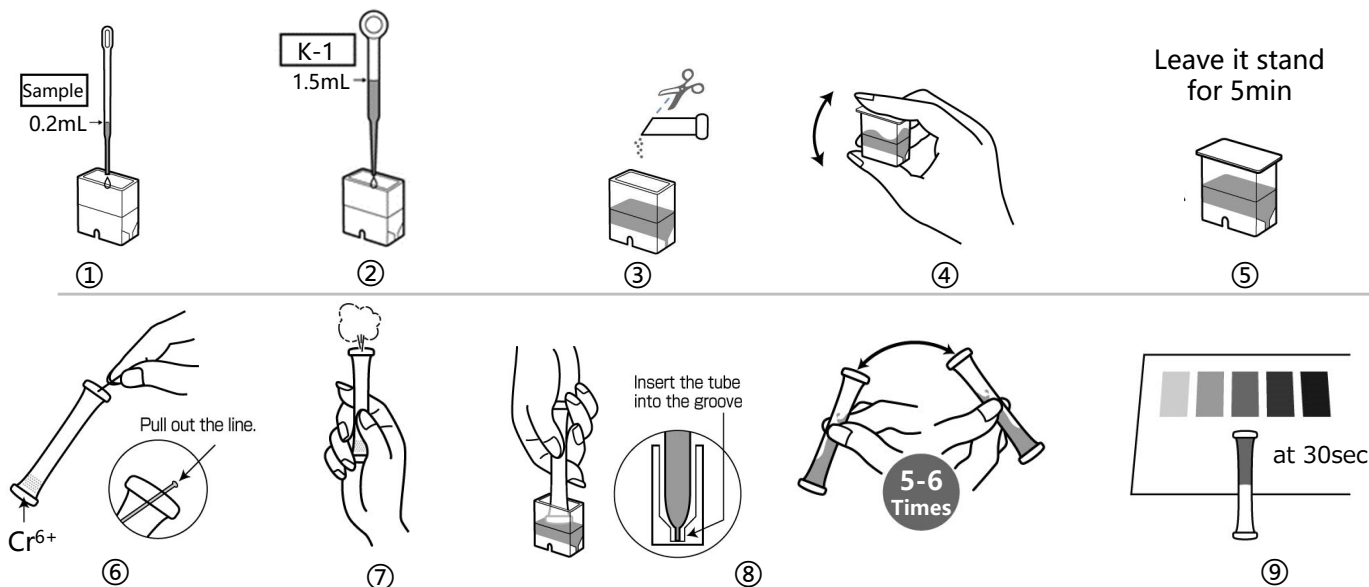
Model : WAK-Cr-T

Oxidation and Diphenylcarbazide Visual Colorimetric Method

Main Reagent : Potassium peroxodisulfate, Diphenylcarbazide

Measuring Range : 0.5 - 20 mg/L(ppm)

How to Use



- ① Take 0.2mL of the sample into Cell (PACKTEST Square Cup) with Small Pipette.
- ② Add 1.5mL of K-1 Reagent with Large Pipette.
- ③ Add content of the K-2 Reagent (small tube).
- ④ Close the cap and shake well to dissolve reagent.
- ⑤ Leave it stand for 5 min. (Shake once or twice halfway through)
- ⑥ Remove the colored line at the top of the tube to clear the aperture.
- ⑦ Press the tube's side wall to expel the air and hold the tube.
- ⑧ Immerse the aperture of the tube into the sample, release the finger to fill the tube halfway. Invert the tube back and forth lightly for 5 to 6 times.
- ⑨ Compare the actual color in the tube with Standard Color at 30 sec.

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

K-1 Reagent and content of the tube is **Strong Acid**.

First Aid

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

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

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. Store K-2 reagent in aluminum zipper bag tightly closed.

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 Total Chromium

Caution

1. This method measures trivalent and hexavalent chromium in sample water. If measurement values including turbidity, sedimentation, etc. are required, dissolve the sample with acid before measuring.
2. The optimum pH upon reaction will be around 1. If the pH of the sample exceeds 1-9, please neutralize with dilute sodium hydroxide solution or dilute sulfuric acid prior to measurement.
3. A 1000mg/L trivalent chromium standard solution develops a color equal to or greater than 20 on Standard Color. If high concentration is expected, dilute in advance before measurement.
4. Keep the sample temperature between 20-40°C. If the sample temperature is low, it requires longer reaction time.
5. Rinse the small pipette with pure water or same sample for measurement prior to use.
6. Using measuring pipette instead of provided plastic pipette will provide better accuracy.
7. Ensure that the PACKTEST tube is filled up to half.
8. Colorimetry should be performed immediately at 30 seconds. After 1 minute passing from drawing the sample into the tube, the color fades and cause negative false reading. It may also discolor to gray or light purple.
9. Partially undissolved reagent will not affect the measurement.
10. When exposed to sunlight, reacted solution inside the tube discolors to gray or light purple, regardless of presence of chromium. Please be sure to use indoor.
11. The reacted solution inside the tube will become cloudy.
12. You can put the line back into the aperture to seal. This will avoid possibility of spilling the content of the tube.
13. Discard the remaining K-1 reagent.

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 on color development when adding each of the single substances to the standard solution.

≤1000mg/L	will not affect	… Al ³⁺ , As(III), B(III), Ca ²⁺ , Cd ²⁺ , Cl ⁻ , CN ⁻ , Co ²⁺ , Cu ²⁺ , F ⁻ , Fe ²⁺ , Fe ³⁺ , I ⁻ , K ⁺ , Mg ²⁺ , Na ⁺ , NH ₄ ⁺ , Ni ²⁺ , NO ₃ ⁻ , Pb ²⁺ , PO ₄ ³⁻ , SO ₄ ²⁻ , Zn ²⁺ , Sulfite ion, Sodium Bisulfite Solution
≤100mg/L	“	… NO ₂ ⁻
≤50mg/L	“	… Residual Chlorine, Phenol
≤10mg/L	“	… Mn ²⁺

Not suitable for seawater.

【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.



KYORITSU
CHEMICAL-CHECK Lab., Corp.

1-18-2 Hakusan, Midori-ku, Yokohama, Kanagawa
226-0006, JAPAN E-mail:eng@kyoritsu-lab.co.jp

2102