

1. PERFORMANCE

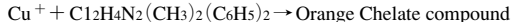
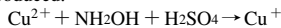
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|--------------------------|---|
| 1) Sampling method | : Direct sampling method |
| 2) Measuring range | : 1-100mg/L (Cu ⁺ + Cu ²⁺) |
| 3) Sampling time | : 1 to 2 minutes |
| 4) Sample volume | : over 5 mL |
| 5) Detectable limit | : 0.5mg/L |
| 6) Shelf life | : 1 year |
| 7) Operating temperature | : 0~40°C |
| 8) Operating pH | : 2-11 |
| 9) Reading | : Direct reading from the scale |
| 10) Colour change | : White → Orange |

2. RELATIVE STANDARD DEVIATION

RSD-low : 10% RSD-mid. : 5% RSD-high : 5%

3. CHEMICAL REACTION

By reacting with Hydroxylamine sulphate, divalent Copper ion is reduced to monovalent Copper ion. Monovalent Copper ion is reacted with 2,9-Diphenyl 1-4,-7-Diphenyl 1-1,-10-phenanthroline and Chelate is produced.



4. CALIBRATION OF THE TUBE

CUPRIC SULPHATE STANDARD SOLUTION METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance		ppm	Interference	ppm	Coexistence
Ferric ion	Fe ³⁺	20	Similar stain is produced.	Copper ion conc. ×2	Higher readings with indiscernable maximum end point of the stain are given.
Zinc ion	Zn ²⁺		∕	100mg/L	∕
Chlorine ion	Cr ⁶⁺		The accuracy of readings in not affected.		The accuracy of readings is not affected.
Manganous ion	Mn ²⁺		∕		∕

6. SAMPLING METHOD

(Direct sampling method)

- 1) Make the sample solution at pH 2-11 before test.
- 2) Cut both ends of a fresh detector tube with an ampule cutter.
- 3) Squeeze the rubber bulb (optional), insert the end of the tube with side B into the rubber bulb and immerse the end of the tube with side A into the sample solution.
- 4) Put the thumb off the rubber bulb, and the sample solution is rose through the reagent.
- 5) When the sample solution rises up to C of the tube, remove the tube from the rubber bulb and from the sample solution to take the reading.
- 6) When the concentration is over 100mg/L, dilute the sample solution and multiply the readings obtained by the dilution ratio.

