

## 1. PERFORMANCE

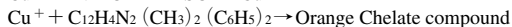
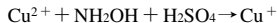
- |                          |  |
|--------------------------|--|
| 1) Sampling method       | : Direct sampling method<br>(Refer to Page 17) |
| 2) Measuring range       | : 1-100mg/ℓ                                    |
| 3) Sampling time         | : 1 minute                                     |
| 4) Sample volume         | : over 5 mℓ                                    |
| 5) Detectable limit      | : 0.5mg/ℓ                                      |
| 6) Shelf life            | : 1 year                                       |
| 7) Operating temperature | : 0 ~ 40 ℃                                     |
| 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. This monovalent Copper ion is reacted with 2, 9-Diphenyl 1-4, 7-Dipheny 1-1, 10-phenanthroline and Chelate is produced.



## 4. CALIBRATION OF THE TUBE

CUPRIC SULPHATE STANDARD SOLUTION METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	mg/ℓ	Interference	mg/ℓ	Coexistence
Ferric ion	20	Similar stain is produced.	Copper ion conc. × 2	Higher readings are given.
Zinc ion		The accuracy of readings in not affected.	100	∕
Chlorine ion		∕		∕
Manganous ion		∕		∕

(NOTE)

## 6. SAMPLING METHOD

- Cut both ends of a fresh detector tube with a file.
- Squeeze the rubber bulb (an extra option), insert the tube end (B) into it as it is and immerse filled end (A) of the tube.
- Put the thumb off the rubber bulb, and the sample solution shall rise up.
- When the sample solution rises up to (C) of the tube, remove the tube from the rubber bulb and from the sample solution.
- The concentration can be obtained directly from the reading value of scale printed on the tube.
- When the concentration is over 100mg/ℓ, dilute the sample solution and multiply the readings obtained by the dilution ratio.

