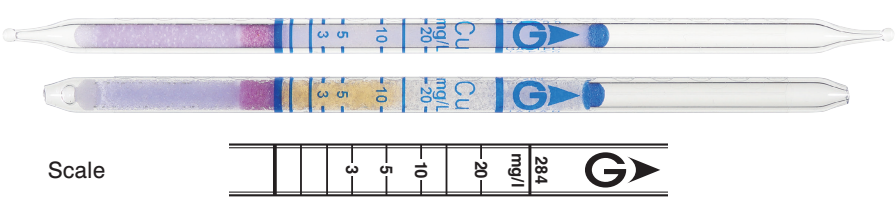
# Copper $Cu^{++}$ $Cu^{2+}$ No.284




**Performance** The minimum scale value (1mg/L) is not printed on the tube, but only the scale line is printed.

| | |
|---|---|
| Measuring range | (1) to 20 mg/L |
| Sampling time | 5 min |
| Detecting limit : | 0.5 mg/L |
| Colour change : | White → Orange |
| Operating conditions : | Water temperature 0 to 35 °C (32 to 95 °F) correction not used |
| pH value : | pH 4.0 to pH 6.0 |
| Relative standard deviation : | 15 % (for 1 to 5 mg/L), 10 % (for 5 to 20 mg/L) |
| Tube quantity and number of tests per box : | 10 tubes for 10 tests |
| Shelf life : | 24 months (in the refrigerator) |

**Reaction principle**

$Cu^{2+}$ + Reduction Agent → $Cu^{+}$

$Cu^{+}$ + Bathocuproine → Complex compound

**Possible coexisting substances and their interferences**

| Substance | | Concentration | Interference | Changes colour by itself to |
|---|---|---|---|---|
| Zinc | $Zn^{2+}$ | ≧ 5 mg/L | + | No (≦ 100 mg/L) |
| Aluminum | $Al^{3+}$ | ≧ 50 mg/L | + | No (≦ 100 mg/L) |
| Chlomium (VI) | $Cr^{6+}$ | ≦ 100 mg/L | No | Pale yellow (≧ 100 mg/L) |
| Cobalt | $Co^{2+}$ | ≦ 100 mg/L | No | No (≦ 100 mg/L) |
| Cyanide ion | $CN^{-}$ | ≧ 0.2 mg/L | − | No (≦ 100 mg/L) |
| Iron(III) | $Fe^{3+}$ | ≦ 100 mg/L | No | No (≦ 100 mg/L) |
| Nickel | $Ni^{2+}$ | ≧ 70 mg/L | + | No (≦ 100 mg/L) |
| Manganese | $Mn^{2+}$ | ≧ 30 mg/L | + | No (≦ 100 mg/L) |

**Calibration method**

Copper standard solution