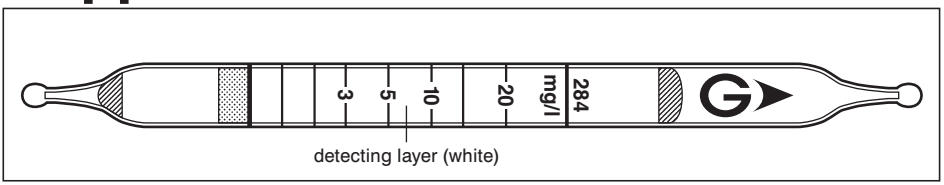
Copper $Cu^{+}+Cu^{2+}$ No.284



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
Corrections for water temperature : Unnecessary (0 to 35˚C)
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)
Shelf life : 2 years (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 (≦ 100mg/l)
Aluminum	Al^{3+}	≧ 50 mg/l	+	No (≦ 100 mg/l)
Chlomium(VI)	Cr^{6+}	≦ 100mg/l	No	Pale yellow (≧ 100 mg/l)
Cobalt	Co^{2+}	≦ 100mg/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