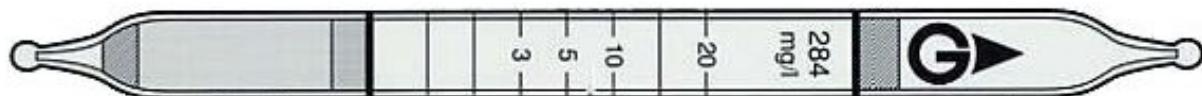


Copper Ion

Cu^{2+}

NO.284



Performance

Measuring Range	(1) to 20 mg/l
Sampling Time	5 minutes
Detecting Limit	0.5 mg/l
Colour Change	White → Orange
Reaction Principle	$\text{Cu}^{2+} + \text{Reduction agent} \rightarrow \text{Cu}^+$ $\text{Cu}^+ + \text{Bathocuproine} \rightarrow \text{Complex Compound}$
Coefficient of Variation	15% (for 1 to 5 mg/l), 10% (for 5 to 20 mg/l)
Shelf Life	2 Years
Corrections for temperature & humidity	Unnecessary
Store the tubes in the refrigerator at 10°C (50°F) or below	

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Change colour by itself
Zn	≥ 5 mg/l	Plus error	No discoloration (≤ 100 mg/l)
Al	≥ 50 mg/l	Plus error	No discoloration (≤ 100 mg/l)
Cr ⁶⁺	≥ 100 mg/l	No error	Pale yellow (≥ 100 mg/l)
Co	≥ 100 mg/l	No error	No discoloration (≤ 100 mg/l)
CN-	≥ 0.2 mg/l	Minus error	No discoloration (≤ 100 mg/l)
Fe	≥ 100 mg/l	No error	No discoloration (≤ 100 mg/l)
Ni	≥ 70 mg/l	Plus error	No discoloration (≤ 100 mg/l)
Mn	≥ 30 mg/l	Plus error	No discoloration (≤ 100 mg/l)

Calibration gas generation

Copper ion standard solution

TLV-TWA	TLV-STEL	Explosive range
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