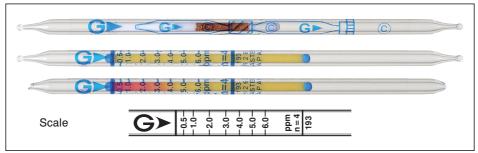
# 2-Pentenenitrile CH3CH2CH:CHCN

No.193



#### Performance

When used, these tubes are to be connected.

Measuring range	0.5 to 6.0 ppm	6.0 to 15.0 ppm
Number of pump strokes	4 (400 mL)	2(200 mL)
Correction factor	1	2.5
Sampling time	8 min	4 min

Detecting limit: 0.1 ppm (4 pump strokes)

Colour change : Yellow → Red

Operating conditions : Temperature 0 to 40 °C (32 to 104 °F) correction used

Relative humidity 0 to 90 % correction not used

Relative standard deviation : 10 % (for 0.5 to 2 ppm), 5 % (for 2 to 6 ppm)

Tube quantity and number of tests per box: 10 tubes for 5 tests

Shelf life: 36 months

#### Reaction principle

 $CH_3CH_2CH:CHCN + Cr^6 + + H_2SO_4 \rightarrow HCN$ 

2HCN + HgCl<sub>2</sub> → 2HCl HCl + Base → Chloride

## Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Hydrogen chloride, Hydrogen cyanide		No	No
Acetone cyanohydrin		+	Red
Alcohols, Esters, Ketones	≥ 20 ppm	_	No
Nitriles (≥ C <sub>3</sub> )		+	Red
Aromatic hydrocarbons	≥ 20 ppm	_	No

Dehumidifying agent removes humidity and acid gases.

### Calibration gas generation

Diffusion tube method