

KITAGAWA

No.210U

PENTYL ACETATE LENGTH-OF-STAIN DETECTOR TUBES  
(Type U)  
(Direct Reading Type)

PERFORMANCE :

Measuring Range : 10 - 200 ppm  
Sampling Time : 4.5 minutes (3 pump stroke)  
Color Change : Yellow - Pale Blue  
Sensing Limit\* : 4 ppm

\*The minimum detectable concentration although not precise.  
\*\*FLOW CONTROL ORIFICE IN THE PUMP SHOULD BE REMOVED BEFORE SAMPLING.

SAMPLING AND MEASUREMENT:

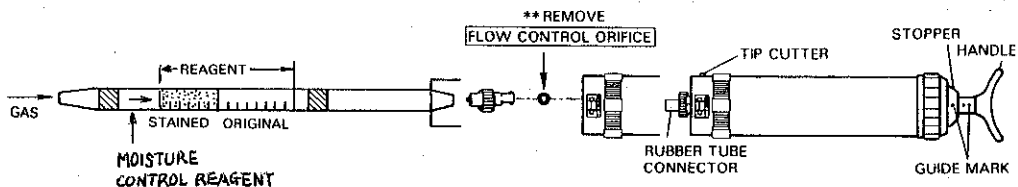


Fig. 1

1. Break tips of a fresh detector tube by bending each tube end in the tube tip cutter and then insert the tube end, of which direction is marked with broad arrow securely into pump inlet, as shown in Fig.1.
2. Use of Model 400 aspirating pump;  
Align the guide marks (red points) on shaft and back plate of the pump. And pull the handle at a full stroke and lock it with 1/4 turn (90°). Wait 1.5 minutes as it is.  
Use of Model 400A or APS aspirating pump;  
Align the guide marks (red points) on shaft and stopper of the pump. And pull the handle at a full stroke. Wait 1.5 minutes as it is.
3. Push the handle without removing the detector tube from the pump inlet, and air in the pump will be discharged completely. Then repeat the step 2 twice.
4. Remove the detector tube from the pump inlet on the completion of the sampling. The reading can be obtained directly from the scale printed on the detector tube.

SPECIAL NOTE:

When the top of the discolored layer is colored obliquely, read the concentration at the center between the longest and the shortest points of the discolored layer. The total stain length should be read regardless of color variations.

TEMPERATURE CORRECTION:

The concentration scale is calibrated on the tube temperature of 20°C (68°F) therefore when testing at the other temperatures, the readings from the concentration scale should be corrected with the temperature correction table. Relative humidity, no need for correction.

Temperature Correction Table				
Scale Readings (ppm)	True Concentration (ppm)			
	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
200	240	200	160	120
150	180	150	130	100
100	120	100	80	70
50	60	50	40	30
30	36	30	24	18
10	13	10	8	6

INTERFERENCES:

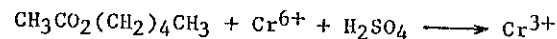
Alcohols, Esters, Ketones or Aromatic hydrocarbons produce similar or Brown stains and coexistence with them, Propyl acetate give higher readings. Although coexistence of Paraffinic hydrocarbons or Halogenated hydrocarbons change the whole reagent to Pale brown, the reading can be obtained if the top of brown is clear.

HAZARDOUS AND DANGEROUS PROPERTIES OF PROPYL ACETATE:

T.L.V.\*\*\* : 100 ppm  
Explosive range in air : More than 1.1 %

\*\*\*Threshold Limit Value established by the American Conference Governmental Industrial Hygienists, 1985.

CHEMICAL REACTION IN THE DETECTOR TUBE:



BEFORE TESTING THE PUMP SHOULD BE CHECKED FOR PROPER PERFORMANCE. LEAKAGE OF AIR WILL AFFECT ACCURATE READINGS.