

KITAGAWA

ISOPENTYL ALCOHOL LENGTH-OF-STAIN DETECTOR TUBES
(TYPE U)
(DIRECT READING TYPE)

PERFORMANCE :

Measuring Range : 5 - 100 ppm
 Sampling Time : 4.5 minutes (3 pump strokes)
 Color Change : Yellow - Pale Blue
 Sensing Limit* : 2 ppm

*The minimum detectable concentration although not precise.

**FLOW CONTROL ORIFICE IN THE PUMP SHOULD BE REMOVED BEFORE SAMPLING.

SAMPLING AND MEASUREMENT:

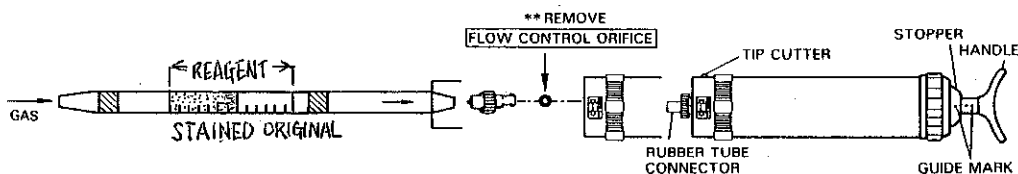


Fig. 1

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 perfectly. 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.

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

TEMPERATURE, HUMIDITY CORRECTION:

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

Scale Readings (ppm)	True Concentration (ppm)				
	0°C (32°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
100	-	-	100	80	70
80	-	-	80	65	55
60	-	83	60	50	45
40	90	50	40	33	30
20	32	23	20	16	15
10	14	11	10	9	8
5	5	5	5	5	5

INTERFERENCES:

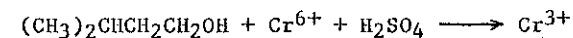
Alcohols produce similar stains and give higher readings. More than 200 ppm of Toluene changes the whole reagent to Pale Blue and give higher readings. Less than 1,000 ppm of Hexane, Ethyl acetate or Trichloroethylene does not affect on reading value.

HAZARDOUS AND DANGEROUS PROPERTIES OF ISOPENTYL ALCOHOL:

T.L.V.**** : 10 ppm
 Explosive range in air : 1.2 - 9.0 %

****Threshold Limit Value established by the American Conference Governmental Industrial Hygienists, 1984.

CHEMICAL REACTION IN THE DETECTOR TUBE:



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