

# 147

**GASTEC****N-AMYL ACETATE TUBE  
(N-PENTIL ACETATE)**

The Gastec Detector Tube No. 147 provides a rapid, fully quantitative analysis of the concentration of N-AMYL ACETATE in air with an accuracy tolerance of  $\pm 25\%$  by utilizing the Gastec Multi-Stroke Gas Sampling Pump.

**PERFORMANCE :**

Calibration Scale	10—200 ppm (based on 2 pump strokes)
Measuring Range	10—200 ppm
Number of Pump Stroke	2
Correction Factor	Tube reading $\times 1$
Detecting Limit*	2 ppm
Sampling Time	3 minutes per pump stroke
Color Change	Yellow-Pale blue
Shelf Life	2 years

\* Minimum detectable concentration.

**MEASUREMENT PROCEDURE :**

1. Break tips off a fresh detector tube by bending each tube in the tube tip breaker of the pump.
2. Insert the tube securely into the rubber inlet of the pump with the arrow on the tube pointing toward the pump.
3. Make certain the pump handle is all the way in. Align the guide marks on the shaft and pump body.
4. Pull the handle all the way out until it locks on 1 pump stroke (100 ml). Wait 3 minutes until staining stops. Repeat above sampling procedure one more time.
5. Read concentration at the interface of the stained-to-unstained reagent.

**CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :**

Calibration of the Gastec detector tube No. 147 is based on a tube temperature of 20°C (68°F) and not the temperature of the gas being sampled, approximately 50% relative humidity, and normal atmospheric pressure.

1. For tube temperature other than 20°C (68°F), use the Temperature Correction Table below :

**Temperature Correction Table 146**

Tube Reading (ppm)	True Concentration				
	0°C (32°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
200	—	540	200	100	60
100	360	200	100	60	40
50	130	100	50	30	20
30	70	50	30	20	15
10	20	15	10	9	5

2. No humidity correction is required for relative humidity range of 0—100%.
3. To correct for pressure, multiply by

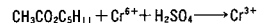
$$\frac{760}{\text{Atmospheric Pressure (mmHg)}}$$

**CALIBRATION AND ACCURACY :**

The Gastec Detector Tube No. 147 is carefully calibrated as an integral part of the manufacturing process. Calibration and accuracy test are performed using combination of dynamic diffusion tube method and gas chromatographic technique.

**DETECTION PRINCIPLE :**

n-Amyl Acetate is reduced potassium dichromate to form chromic sulfate, which is Blackish Brown in color.

**INTERFERENCES :**

Other Esters, Alcohols and Ketones give plus error when coexisted and produce similar stain by themselves. Water vapor (over RH 90%) gives plus error and produces pink color.

**DANGEROUS AND HAZARDOUS PROPERTIES :**

Threshold Limit Value-Time Weighted Average by ACGIH (1996): 100 ppm (7—8 hours)

Manufacturer : Gastec Corporation  
6431 Fukaya, Ayase-City 252, Japan

96I-147-1  
Printed in Japan