

GASTEC instructions for No.152L Methyl Ethyl Ketone Detector Tube

FOR SAFE OPERATION :

Read this manual and the instruction manual of your Gastec Gas Sampling Pump carefully.

⚠ WARNING :

1. Use only Gastec detector tubes in a Gastec Pump.
2. Do not interchange or use non-Gastec parts or components in Gastec's detector tube and pump system.
3. The use of non-Gastec parts or components in Gastec's detector tube and pump system may result in property damage, serious bodily injury, and death; voids all warranties.

⚠ CAUTION : If not observed, injuries to the operator or damage to the product may result.

1. When breaking the tube ends, keep away from eyes.
2. Do not touch the broken glass tubes, pieces and reagent with bare hand(s).
3. The sampling time represents the time necessary to draw the air sample through the tube. The tube must be positioned in the desired sampling area for the entire sampling time or until the flow finish indicator indicates the end of the sample.

△ NOTES : For maintaining performance and reliability of the test results.

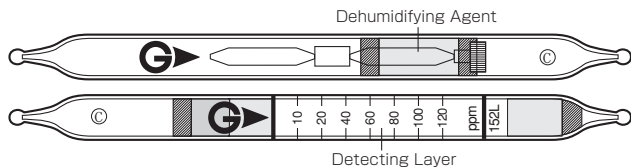
1. Use Gastec Gas Sampling Pump together with Gastec Detector Tubes only for the purposes specified in the instruction manual of the detector tube.
2. Use this tube within the temperature range of 0 - 40°C (32 - 104°F).
3. Use this tube within the relative humidity range of 0 - 90%.
4. This tube may be interfered with by the coexisting gases. Please refer to the "INTERFERENCES".
5. Shelf life and storage conditions of the tube are marked on the label of the box of tube.

APPLICATION OF THE TUBE :

Use this tube for the detection of Methyl Ethyl Ketone in air for the industrial areas and environmental atmospheric condition.

SPECIFICATION :

(As a result of Gastec's commitment to continued improvement, specifications are subject to change without notice.)



Measuring Range	10 - 120 ppm	120 - 384 ppm
Number of Pump Stroke	1	1/2
Correction Factor	1	3.2
Sampling Time	2 minutes	1 minute
Detecting Limit	3 ppm (n = 1)	
Colour Change	Yellow → Reddish purple	
Reaction Principle	The reagent reacts with Methyl Ethyl Ketone to form intermediate product and indicator discolours reddish purple.	

Coefficient of Variation : 5%

**** Shelf Life : Please refer to the Validity Date printed on the box of tube.**

**** Store the tubes in the refrigerator to keep at 10°C (50°F) below.**

CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

Temperature : Correct for temperature by the table below.

Tube Reading (ppm)	True Concentration (ppm)								
	0°C (32°F)	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	25°C (77°F)	30°C (86°F)	35°C (95°F)	40°C (104°F)
120	250	220	180	155	120	85	60	40	25
100	215	190	155	130	100	70	45	30	20
80	180	155	125	105	80	55	35	25	15
60	145	125	100	85	60	40	25	15	12
40	110	90	75	60	40	25	15	10	10
20	80	55	50	35	20	10	8	8	8
10	60	40	35	25	10	5	5	5	5

Humidity :

No correction is required.

Pressure :

To correct for pressure, multiply by the tube reading by

$\text{Tube Reading (\%)} \times 1013 \text{ (hPa)}$

Atmospheric Pressure (hPa)

MEASUREMENT PROCEDURE :

1. For leak tight check of the pump insert a fresh sealed detector tube into pump. Follow instructions provided with the pump operating manual.
2. Break tips off a fresh detector tube in the tube tip breaker of the pump.
3. Connect Ⓞ marked ends with rubber tubing after breaking each end.
4. Insert the analyser tube securely into pump inlet with arrow (G) on the tube pointing toward pump.
5. Make certain pump handle is all the way in. Align guide marks on pump body and handle.
6. Pull handle all the way out until it locks on 1 pump stroke (100mL). Wait 2 minutes and confirm the completion of the sampling.
7. For higher than 120 ppm measurement, prepare fresh tube and take 1/2 (50mL) pump strokes.
8. Read concentration at the interface of the stained-to-unstained reagent.
9. If correction is needed, multiply the correction factors of temperature, pump strokes and pressure.

INTERFERENCES :

Substance	Concentration	Interference	Changes colour by itself to
Acetaldehyde		+	Reddish purple
Acetone		+	Reddish purple
Acetic acid		No	No
Ethyl acetate		+	No
Diethyl ether	≥ 20 ppm	+	No
Trichloroethylene		No	No
Toluene		No	No
Hexane		No	No
Methanol	≥ 50 ppm	+	No

The table of this interference gases primarily expresses the interference of each coexisting gas in the gas concentration range, equivalent to the gas concentration. Therefore, the test result may be given positive result by the other substances not listed in the table. For more information is needed, please contact us or our distributors in your territory.

DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Time Weighted Average by ACGIH (2008) : 200 ppm

Threshold Limit Value-Short Term Exposure Limit by ACGIH (2008) : 300 ppm

DISPOSAL INSTRUCTION :

Reagent of the tube does not use toxic substances. When dispose of the tube regardless of used or unused, follow the rules and regulations of the local government.

WARRANTY : If you have any questions regarding gas detection and quality of the tubes, please feel free to contact your Gastec representatives.

Manufacturer : Gastec Corporation
8-8-6 Fukayanaka, Ayase-City, 252-1195, Japan
<http://www.gastec.co.jp/>
Telephone +81-467-79-3910 Facsimile +81-467-79-3979

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