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Warning: Keep out of reach of children, if ingested seek medical attention immediately.



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## Operating Instructions For Glutaraldehyde Monitor (Part Number: 380017)

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### Technical Summary

#### Physical Specifications:

Dimensions	10.5 cm x 5.5 cm x 0.25 cm
Weight	11 g
Refrigerated shelf life	1 year
<b>Store badges refrigerated at all times.</b>	
Color change	pink to violet

#### Sampling Parameters:

Concentration range	0.04 - 0.95 ppm
Relative humidity range	25% - 85%
Face velocity range	10 - 165 cm/sec
Temperature range	15°C - 35°C (59°F - 95°F)
Light effect - UV (direct sunlight)	no effect
Light effect - visible	no effect
Mean coefficient of variation	±6.8
Bias at ambient conditions	1.4%

#### Applications:

The ChromAir glutaraldehyde badge may be used for personnel or area monitoring for exposure times of 15 minutes.

#### Cross Interferences:

The ChromAir STEL glutaraldehyde monitor is highly selective to glutaraldehyde. Alcohols, ketones and ammonia have no effect on the performance and accuracy of the monitor. Up to 2 ppm formaldehyde shows no effect on the monitor. No other interferences are known.

## Introduction

Glutaraldehyde is a colorless liquid with an irritating odor. It has an odor threshold in the ppb level. Glutaraldehyde may be fatal if inhaled, swallowed or absorbed through the skin. Symptoms of exposure may include burning sensations, headache, coughing, shortness of breath, nausea and vomiting. To the best of our knowledge, toxicological, chemical and physical properties have not been thoroughly studied. OSHA and NIOSH STEL are 0.2 ppm.

Glutaraldehyde is used extensively in the medical field. It is used in hospitals for cold sterilization of medical supplies and instruments. Glutaraldehyde is also used as a disinfectant in urology, endoscopy and dental departments.

## Principle of Operation

The ChromAir passive monitor is a patented direct-read autogenic exposimeter. The device is constructed from five cells attached on one side to a flat indicator layer and on the other side to a series of different diffusive resistances. Glutaraldehyde vapor diffuses to the cells through the different diffusive resistances and reacts with the indicator layer, producing color change from pink to violet. The color produced on the indicator layer is a direct measure of the concentration in ppm. Visual color comparison is achieved by observing the formation of the violet threshold color on the individual cell and reading the corresponding concentration.

## Operating Instructions

1. Remove the pouch from refrigerator and allow it to warm to room temperature.
2. Remove the badge from its protective pouch.
3. Enter all pertinent information on the I.D. label before monitoring is started (i.e. name, location, date and start time).
4. Remove the scavenger strip from the front of the badge.
5. For personnel monitoring, attach the badge near the user's breathing zone (i.e. collar) with the front side exposed to the surrounding atmosphere.
6. For area monitoring, attach the badge to a stand and mount in a centralized area with the front side exposed to the surrounding atmosphere.
7. Expose the badge 15 minutes.
8. At the end of the exposure period (15 minutes), **return the badge to its original pouch and let stand for 45 minutes at room temperature to allow complete development of color. Read the badge no later than 3 hours after exposure.**
9. At the end of the development period, locate the highest level cell with violet threshold color and read the corresponding average concentration from the scale.

## Storage

The ChromAir STEL glutaraldehyde monitor should be refrigerated in its sealed bag at all times.

## Benefits

1. **Accurate Measurements:** The ChromAir STEL glutaraldehyde monitor is designed to react selectively with glutaraldehyde with minimum interference from other substances. The unique design of the monitor minimizes the effects of different humidities, temperatures and air velocities on the accuracy of measurements.
2. **Applications:** The ChromAir STEL monitor may be used for personnel screening and for area monitoring or area mapping.
3. **Ease of Use:** The ChromAir STEL monitor is a direct-read device that gives immediate, on-site results. Use of this device requires minimum training.
4. **Cost Effective:** The ChromAir STEL glutaraldehyde monitor offers the user the most inexpensive air sampling solution available.

## Other Available Monitors

1. ChromAir Badges:

Acetone	Ethanol	Methanol
Ammonia	Formaldehyde	Methyl ethyl ketone
Carbon monoxide	Hydrogen sulfide	Methyl isobutyl ketone
Chlorine	Mercury	Ozone
2. ChromAir Color Comparators:

Ammonia	Formaldehyde
Carbon monoxide	Hydrogen sulfide
Chlorine	Mercury

If you require ChromAir monitors for a chemical hazard not listed, please contact Morphix Technologies® for a free compound consultation at (800) 808-2234.