

CHROMAIR[®]

SYSTEM

- Immediate, on-site results
- Easy-to-read color change
- Highly sensitive and selective
- Exposure data read directly from badge
- Measure TWA exposure



- Immediate response for short-term exposure measurements
- Patented design minimizes effects of humidity and velocity
- Light-weight and cost effective for personnel and area monitoring

Principle of Operations

The ChromAir badge is a colorimetric direct-read monitor. It relies on the principle of diffusion; therefore it requires no pump to operate. Unlike traditional diffusion tubes, the patented design of the ChromAir badge provides a short and constant diffusion path irrespective of the sampling time or concentration. This unique feature provides accurate results immediately and throughout the sampling period.

The ChromAir monitor provides the user with six exposure levels. Most ChromAir badges indicate from 1/10 to 2 times the time-weighted-average for an eight hour work period. The scale printed on the badge and color comparator is based on exposure dose [parts per million times hour (ppm•hr)]. To determine the average concentration, locate the highest cell with a color change and divide the corresponding dose level (ppm•hr) by the sampling time in hours (hr). EXAMPLE: If the sampling time is 2 hours and the badge reads 40 ppm•hr, the average concentration is determined by: 40 ppm•hr/2hr. Therefore, the time weighted average concentration is 20 ppm.

¹ChromAir glutaraldehyde STEL badges are for 15 minutes of monitoring only. The scale on the Badge is in ppm.

²ChromAir mercury badge and color comparator scale is in mg/m³•hr.

³Coefficient must be applied to scale printed on badge.

⁴ChromAir ozone badges are ten times more sensitive to ozone than nitrogen dioxide.

PART #	ANALYTE	RANGE (ppm•hr)	INTERFERENCES	PART #	ANALYTE	RANGE (ppm•hr)	INTERFERENCES
380020	Acetone	20 - 24,000	NH ₃ , MEK, MIBK, MPK	380017	Glutaraldehyde	0.04 - 0.95 ¹	None Known
380003	Ammonia	4 - 300	RNH ₂	380018	Mercury	0.125 - 1.6 ²	Strong Oxidizers
380008	Carbon Monoxide	10 - 525	Alkenes, H ₂ , H ₂ S	380020	Methyl Ethyl Ketone	18 - 21,600 ³	NH ₃ , Acetone, MIBK, MPK
380004	Chlorine	0.4 - 13	Br ₂ , I ₂ , HCl	380020	Methyl Isobutyl Ketone	16 - 19,200 ³	NH ₃ , MEK, Acetone, MPK
380007	Formaldehyde	0.3 - 12	Acrolein	380010	Ozone	0.08 - 1.6	H ₂ O ₂ , NO ₂ ⁴

Color Comparators

For higher resolution and accuracy, the ChromAir badges may be used with the ChromAir color comparators. The color scales on the color comparator identically match the colors formed on the ChromAir badge. Available for following ChromAir badges:

PART #	ANALYTE	RANGE (ppm•hr)
384006	Carbon Monoxide	10 - 480
384001	Formaldehyde	0.3 - 40
384003	Mercury	0.12 - 3.2 ²

