

# SAFEAIR<sup>®</sup>

## SYSTEM

- Easy to use
- Highly sensitive and selective
- Ideal for daily employee screening or leak detection
- Measure TWA exposure
- No calibration or laboratory analysis needed



### Principle of Operations

The SafeAir badge provides an immediate visual indication when a specific chemical hazard is present. The sensor in the SafeAir badge is constructed from a coated indicator layer rather than impregnated paper, thus providing a homogeneous and stable color change. The badges are highly sensitive and selective to the targeted chemicals. A color change, in the form of an exclamation mark, warns the presence of the targeted hazard. The SafeAir system is a low cost chemical detector badge. The badge requires minimal training. There is no calibration, extra equipment or laboratory analysis required.

### Multi-Purpose Badge

Often chemicals coexist in the same environment. The SafeAir chlorine/chlorine dioxide badge selectively indicates the presence of chlorine on the front side of the badges and chlorine dioxide on the back side. Indications may appear on both sides if both chemicals are present. Non-selective multi-purpose badges are available for TDI/MDI and hydrazine/monomethyl hydrazine. Individual color comparators may be used to quantify the exposure of the specific chemical.

### Dual Threshold Badge

The mercury and 1,1-dimethyl hydrazine badges provide the user with two independent threshold levels. The front of the badge indicates one threshold level while the back provides a second level. This unique feature allows the badge to be used as an inexpensive range finder.

### Color Comparators

For higher resolution and wider range, the SafeAir badges can be used with the SafeAir color comparator. Slide the SafeAir badge with the exclamation point facing up into the color comparator and turn the wheel until the colors match. Read the exposure dose in the exposure dose window.

PART #	ANALYTE	THRESHOLD LEVEL	INTERFERENCES
382010	Ammonia	4.0 ppm·hr	Primary aliphatic amines
382001	Aromatic Isocyanates (TDI and MDI)	TDI: 5 ppb·hr MDI: 3.5 ppb·hr	Aromatic isocyanates, high conc. Hydrazine
382012	Carbon Monoxide	7.0 ppm·hr	Alkenes, H <sub>2</sub> , H <sub>2</sub> S
382009	Chlorine	0.18 ppm·hr	Br <sub>2</sub> , HCl, I <sub>2</sub>
382003	Chlorine/Chlorine Dioxide	Cl <sub>2</sub> : 0.18 ppm·hr ClO <sub>2</sub> : 0.2 ppm·hr	Cl <sub>2</sub> : Br <sub>2</sub> , HCl, I <sub>2</sub> ClO <sub>2</sub> : NO <sub>2</sub> , high conc. O <sub>3</sub>
382011	Formaldehyde	0.2 ppm·hr	Acrolein
382002	Hydrazine	8 ppb·hr	MMH, aromatic amines
382020	Hydrazine Dual-Level	Front: 8 ppb·hr Back: 4 ppb·hr	MMH, aromatic amines
382024	Hydrogen Chloride	2.0 ppm	None known
382015	Hydrogen Sulfide	2.0 ppm·hr	None known
382005	Mercury	Front: 0.25 mg/m <sup>3</sup> ·hr Back: 0.08 mg/m <sup>3</sup> ·hr	Strong oxidizers
382004	Ozone	0.05 ppm·hr	H <sub>2</sub> O <sub>2</sub> , above 1ppm NO <sub>2</sub>
382036	Phosgene	8.3 ppb·hr	COBr <sub>2</sub> , CNCl, ClCO <sub>2</sub>
382065	Phosgene Dura	20 ppb·hr	COBr <sub>2</sub> , CNCl, ClCO <sub>2</sub>
382060	Phosgene Medi	166.7 ppb·hr	COBr <sub>2</sub> , CNCl, ClCO <sub>2</sub>
382014	Sulfur Dioxide	0.2 ppm hr	None known



PART #	ANALYTE	RANGE
383010	Chlorine	0.03 - 3.0 ppm·hr
383001	Hydrazine	4.5 - 300 ppb·hr
383008	Hydrogen Chloride STEL	2.0 - 26 ppm
383016	Phosgene	0.5 - 450 ppm·min
383022	Phosgene Dura	1.2 - 450 ppm·min
383020	Phosgene Medi	10 - 450 ppm·min
383005	TDI	5 - 140 ppb·hr



2557 Production Road, Virginia Beach, VA 23454  
 Toll-Free (US only): 800-808-2234  
 Phone: +1-757-431-2260 Fax: +1-757-216-6209  
 www.morphotec.com e-mail: sales@morphotec.com  
 Publication Number: MT-CASA-0817rev1