• 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.

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**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, H₂, H₂S, Br₂, HCl, I₂
382009 | Chlorine | 0.18 ppm·hr | Cl₂, Br₂, HCl, I₂
382003 | Chlorine/Chlorine Dioxide | Cl₂: 0.18 ppm·hr, ClO₂: 0.2 ppm·hr | ClO₂, NO₂, high conc. O₃
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
382015 | Hydrogen Sulfide | 2.0 ppm·hr | None known
382005 | Mercury | Front: 0.25 mg/m³·hr, Back: 0.08 mg/m³·hr | Strong oxidizers
382004 | Ozone | 0.05 ppm·hr | H₂O₂, above 1ppm NO₂
382036 | Phosgene | 8.3 ppb·hr | COBr₂, CNCl, CICO₂
382065 | Phosgene Dura | 20 ppb·hr | COBr₂, CNCl, CICO₂
382060 | Phosgene Medi | 166.7 ppb·hr | COBr₂, CNCl, CICO₂
382014 | Sulfur Dioxide | 0.2 ppm·hr | None known

**PART #** | **ANALYTE** | **RANGE**
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383010 | Chlorine | 0.03 - 3.0 ppm·hr
383001 | Hydrazine | 4.5 - 300 ppb·hr
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